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INFORMATICS**



**IMPROVING THE EFFICIENCY OF
MAINTENANCE PROCESS IN MANUFACTURING
SYSTEMS USING INDUSTRY 4.0 TOOLS
PH.D. DISSERTATION**

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Miskolc
2025

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1 Economic and Scientific Relevance

Predictive maintenance in serial production is facing increased economic and scientific attention due to global disruptions such as the energy crisis, climate change, and supply chain volatility. These factors drive the need for reliable, efficiency-oriented maintenance strategies that can be applied even to legacy production systems.

Maintenance has long been recognized as a cornerstone of manufacturing reliability, yet its strategic potential remains underutilized in many industrial settings. Historically, maintenance activities have been reactive—performed only after failures—or preventive, based on fixed intervals rather than actual system conditions. However, this approach is increasingly inadequate in today’s fast-paced and cost-sensitive manufacturing environments.

Classical preventive maintenance is inflexible and often wasteful; full-sensor predictive maintenance is costly and slow to adopt. Predictive maintenance is frequently proposed as the solution to this challenge, yet its implementation is far from trivial. It depends heavily on advanced sensor infrastructure and sophisticated data analytics. Beyond hardware investments, it requires ongoing training in signal processing, machine learning, and statistical modeling. The rapid evolution of these tools contributes to a volatile knowledge base, demanding continuous retraining and adaptation. These barriers render predictive maintenance economically and organizationally unattractive for many small- and medium-sized enterprises, and even large manufacturers operating legacy equipment may find such systems difficult to adopt at scale. [1]

In response, this dissertation explores an alternative direction: leveraging simulation and probabilistic modeling—particularly Bayesian methods—to enable predictive decision-making in the absence of extensive sensor data. This approach facilitates broader applicability, including older or partially observable production lines, while still reaping the benefits of uncertainty-aware maintenance. In doing so, it proposes a transitional step that shifts classical preventive maintenance policies toward more adaptive, predictive regimes.

Industry 4.0 tools—Discrete Event Simulation (DES), Bayesian Neural Networks (BNNs), and Executable Digital Twins (xDT)—enable probabilistic, simulation-driven maintenance decision-making. These technologies offer a path away from rigid, time-

based policies toward dynamic, reliability-centered maintenance strategies. Reducing unplanned downtime improves both **energy efficiency** and **waste reduction**. [2]

For example, a ten-machine line that lowers unplanned downtime from 300 to 210 hours per year avoids roughly 7,200 kWh of wasted energy, i.e. about 1,080 € in electricity costs at 0.15 €/kWh, while more stable operation can reduce scrap rates from 5% to 3%, cutting annual scrap volume by roughly 40% in high-volume production.

Recent global disruptions, including the energy crisis triggered by geopolitical conflict and the escalating urgency of climate change, have intensified the demand for operational efficiency and sustainability. Within this context, maintenance logistics plays a pivotal role: minimizing unplanned downtime not only safeguards productivity but also contributes to energy efficiency and waste reduction.

The core motivation of this dissertation is to bridge the gap between traditional and predictive maintenance by integrating reliability theory, simulation-based modeling, and probabilistic machine learning into a unified framework. It aims to address a key operational question: *How confident can we be to safely postpone maintenance without endangering production continuity?*

Research Question and Sub-Questions

The overall aim of this dissertation is to explore how probabilistic methods, simulation modeling, and Bayesian decision frameworks can be integrated into maintenance logistics to support decision-making in serial production environments.

Central Research Question:

How can Overall Equipment Effectiveness (OEE), hazard rate modeling, and Bayesian Neural Networks (BNNs) be integrated into a coherent framework that supports maintenance decision-making in serial production systems?

Sub-Questions:

1. How can OEE be redefined and calculated in a way that is consistent, comparable across systems, and relevant for maintenance decision-making?
2. What are the limitations of traditional hazard models (e.g., Negative Exponential) for describing failure and maintenance, and how can alternative approaches (e.g., Weibull, sawtooth hazard) better capture system behavior?
3. How can Discrete Event Simulation (DES) be applied to generate data and test maintenance strategies under realistic operating conditions?

4. In what way can Bayesian Neural Networks incorporate uncertainty into maintenance planning, and how can they inform the decision to postpone or execute maintenance?

2 Literature Review and Research Aims

2.1 Rethinking TPM: A New Perspective on Maintenance Efficiency

In Arno Koch's book, *OEE for the production team* [3], he views Total Productive Maintenance (TPM) as a time loss for maintenance activities, where machines are available for production but not utilized for that purpose. On the other hand, in numerous theses, papers and works [4, 5, 6], as well as in personal experience, TPM can be seen as a way of making unplannable events—or at least the loss due to unplannable events—more or almost fully plannable. From an efficiency standpoint, these two perspectives appear contradictory. While minimizing maintenance activities can boost production efficiency, it also exposes companies to unforeseen losses.

To reconcile this dilemma, companies frequently opt to transition from preventive maintenance to predictive maintenance. While predictive maintenance proves highly effective in preventing breakdowns, it often falls short in terms of providing adequate advance notice for standby preparations, especially in scenarios involving low cycle times in serial production. As shown in Figure 2.1, predictive maintenance demands extensive data collection through sophisticated sensor systems and intricate algorithmic analysis, requiring a high level of expertise from the maintenance staff—expertise often beyond the scope of the maintenance team's interest and knowledge.

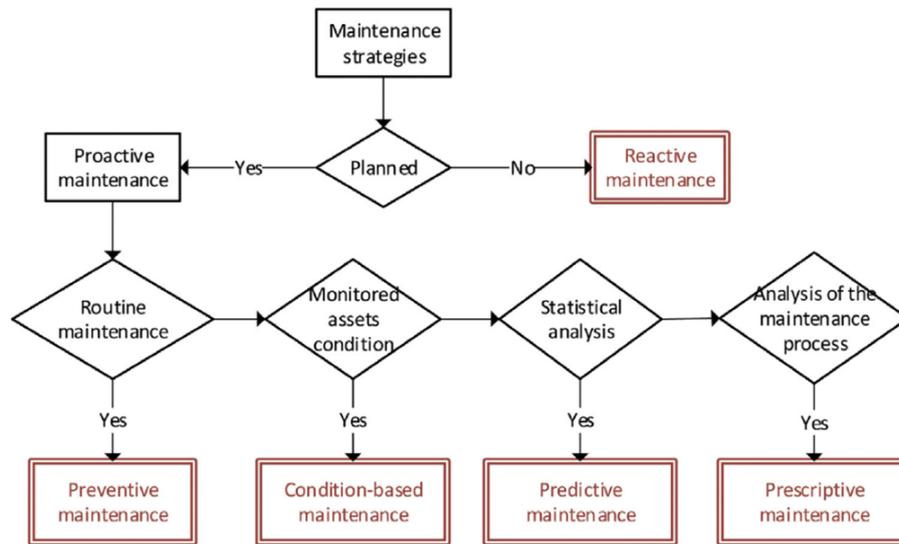


Figure 2.1: Maintenance strategies diagram.

Instead of merely transitioning from preventive maintenance to predictive maintenance, our aim is to introduce a concept that shifts preventive maintenance towards a predictive approach. This is where the concept of the *executable digital twin* can play a significant role. By utilizing the digital twin as a real-time monitoring tool rather than just a simulation or planning tool, we can achieve this objective [7].

To realize this concept, three main areas need to be investigated:

1. **Development of a Comprehensive OEE Calculator:** The first focus is on creating an OEE calculator that provides a comprehensive framework for measuring Overall Equipment Effectiveness and identifying areas for improvement.
2. **Mapping Maintenance Tasks to OEE Factors:** The second area involves mapping maintenance tasks to the three factors of OEE—Availability, Performance, and Quality. This mapping enables a deeper understanding of how maintenance activities impact overall equipment effectiveness.
3. **Implementation of an Executable Digital Twin for Maintenance Advice:** The final aspect centers around implementing an executable digital twin that leverages advanced technologies to offer guidance and recommendations for maintenance tasks. This digital counterpart enhances decision-making processes related to maintenance activities, leading to more informed and efficient maintenance planning.

Through an in-depth exploration of this approach, we can highlight its distinctive contributions. What sets this framework apart is its integration of multiple elements, including a comprehensive analysis of OEE calculation methods, strategic mapping of maintenance

tasks, and the utilization of digital twin technologies for maintenance guidance. This synthesis of methodologies allows for the alignment of preventive and predictive maintenance, harnessing the capabilities of an executable digital twin. The framework aims to optimize maintenance efficiency and effectiveness

The evolution of maintenance strategy can be traced from corrective (fail and fix), through preventive (scheduled), to predictive (condition-based) paradigms. Despite extensive research and technological progress, predictive maintenance has yet to see widespread adoption in serial production environments. Key obstacles include the complexity of data acquisition, uncertainty in failure modeling, and difficulty in integrating predictions with logistical planning.

A fundamental concept in reliability engineering is the failure rate—or hazard rate—typically modeled using either the Negative Exponential (memoryless) or the Weibull distribution (condition-sensitive). The latter, in particular, allows for a more realistic representation of component wear and lifecycle degradation. In this work, a sawtooth hazard rate model is introduced to represent how preventive maintenance dynamically resets the failure rate, enhancing realism and improving scheduling accuracy [8].

Furthermore, the integration of Bayesian reasoning enables the estimation of failure probabilities under uncertainty. Bayesian Neural Networks are especially suited for this task, as they provide probabilistic outputs that directly inform whether maintenance can be safely postponed. Unlike classical neural networks, BNNs explicitly quantify prediction confidence, which is crucial for high-stakes industrial applications [9, 10].

through a comprehensive and methodologically integrated approach.

2.2 Methodical Approach

This literature review begins by exploring the available literature on ScienceDirect concerning the topics of Overall Equipment Efficiency (OEE), Total Productive Maintenance (TPM), and Digital Twin (DT) technologies. These domains were selected for their unique contributions and relevance to the optimization of maintenance and operational strategies in industrial systems. The gathered insights form the basis for the conceptual foundation of this dissertation.

The decision to rely solely on ScienceDirect aligns with the research objectives and is justified by the following considerations:

1. **Quality over Quantity:** Emphasis was placed on prioritizing the quality of the sources. ScienceDirect offers a substantial collection of peer-reviewed journals and high-quality publications, thereby ensuring reliability and trustworthiness.

2. **Broad Timespan:** To understand the evolution of OEE, TPM, and DT, it was necessary to cover a wide historical timespan. ScienceDirect's archive supports this with comprehensive coverage from early developments to current advancements.
3. **Language Preference:** The decision to exclude non-English sources stems from a desire to avoid introducing a third language into the research. While Springer-Link also contains English articles, its significant German-language content led to the selection of ScienceDirect, which predominantly features English-language publications.

This deliberate platform choice ensures that the selected articles match the research objectives in scope and depth. To further refine relevance, subject filters for Engineering, Decision Sciences, Mathematics, and Computer Science were applied. The search utilized the following keyword categories:

- **Overall Equipment Efficiency (OEE)** [11, 12, 13]: OEE is a key performance metric used to assess equipment utilization and identify productivity losses. The literature discusses calculation methodologies, industry-specific implementations, and improvement strategies. Frameworks like the Six Big Losses are commonly employed, and correlations with maintenance practices and production planning are explored.
- **Total Productive Maintenance (TPM)** [11, 14, 15]: TPM is a holistic maintenance strategy aiming to maximize equipment effectiveness. Research includes TPM implementation methods, associated tools, and the benefits of structured TPM programs. The TPM pillars—such as autonomous and planned maintenance—are widely studied, particularly for their relationship with downtime and OEE.
- **Digital Twin Technologies (DT)** [16, 17, 18]: DT refers to the creation of virtual models of physical systems, supporting simulation, monitoring, and optimization. Applications span sectors including manufacturing, aerospace, and healthcare. Key themes include real-time analytics, predictive maintenance, and integration with IoT and AI.

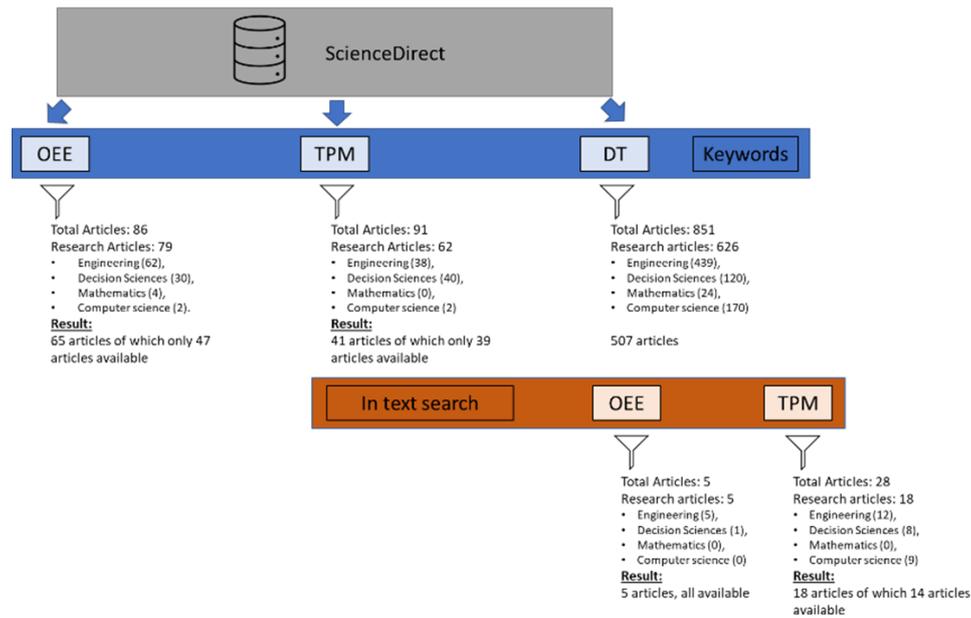


Figure 2.2: Filtering of articles across domains and subdomains.

The collected literature is expected to provide foundational insights into OEE, TPM, and DT for optimizing equipment efficiency, guiding maintenance actions, and improving system performance. Figure 2.2 illustrates the applied filtering logic.

Search Results and Refinement

Based on the selected keywords and applied filters, the initial search yielded:

- **OEE:** 86 articles found; 79 were classified as research articles; 47 were available and downloaded for in-depth analysis.
- **TPM:** 91 articles found; 62 research articles; 39 downloaded and analyzed.
- **DT:** 851 articles identified; 626 research articles. Due to volume, additional filters were applied.

To narrow the scope, a second-stage refinement was performed on OEE and TPM:

- **OEE:** 5 research articles met all criteria and were downloaded.
- **TPM:** 28 articles found; 18 were research articles, of which 14 were selected.

Categorization and Scoring

The remaining 101 research articles were then systematically categorized and weighted. Classification was based on thematic keywords and abstract content. Articles were grouped by thematic focus, and relevance scores were assigned using the following scheme:

- Score 3: Direct contribution to OEE calculation, TPM task mapping, or executable DT concepts.
- Score 2: Strong but indirect relevance to primary keywords.
- Score 1: Vague or peripheral references to the research themes.

This structured scoring approach enabled prioritization of the most relevant works and reduced the dataset to the most useful sources for the literature review.

Keyword	Category	Nr of articles	Ranking
O E E	Calculating OEE	14	3
	OEE and Fuzzy	1	2
	OEE, TPM	3	2
	OEE and DES	1	1
	OEE and maintenance manufacturing	1	1
	OEE and maintenance status	1	1
	case study	12	0
	Digital Dashboard	1	0
	Improve the effectiveness	2	0
	Ind 4.0 and Improvement	1	0
	OEE and AM	1	0
	OEE and CO2 Emissions	1	0
	OEE and cyber security	1	0
	OEE and Energy	1	0
	OEE and flexibility	1	0
	OEE and FMEA	1	0
	OEE and Scheduling	1	0
	OEE and time margins	1	0
	Performance increase	1	0
	Transfer of knowledge	1	0
Total		47	21

Keyword	Category	Nr of articles	Ranking
T P M	TPM standardizing	4	3
	TPM History	1	1
	TPM management	1	1
	Calculating OEE	1	0
	case study	12	0
	Implementing TPM	1	0
	Key_OEE	10	0
	TPM and CO2emissions	2	0
	TPM and I4.0	1	0
	TPM and Tele maintenance	1	0
	TPM and TQM	4	0
	TPM problem identification	1	0
	TPM, SPC, TPM standardizing	1	0
Total		40	6

Keyword	Category	Nr of articles	Ranking
DT & TPM	DT and maintenance	2	1
	case study	4	0
	DT and benefits	1	0
	DT and Jobshop	1	0
	DT and Sustainability	1	0
	DT Challenges	1	0
	DT cyber security	1	0
	DT Digital Threa d	1	0
DT general	1	0	
DT review	1	0	
Total		14	2

Keyword	Category	Nr of articles	Ranking
DT & OEE	DT and Bottleneck analyses	1	0
	case study	2	0
	DT and 5G	1	0
	DT and ICT	1	0
Total		5	0

Figure 2.3: Grading mechanism used for scoring the 101 selected articles.

Figure 2.3 shows the schematic of the grading mechanism. This process ensured objectivity and consistency in narrowing the literature base toward the core research themes of this thesis.

2.3 Main Findings

After scoring the 101 articles, a total of 29 articles were selected for further analysis. Figure 2.4 illustrates how each article underwent a thorough critical reading and was subsequently grouped according to its thematic focus.

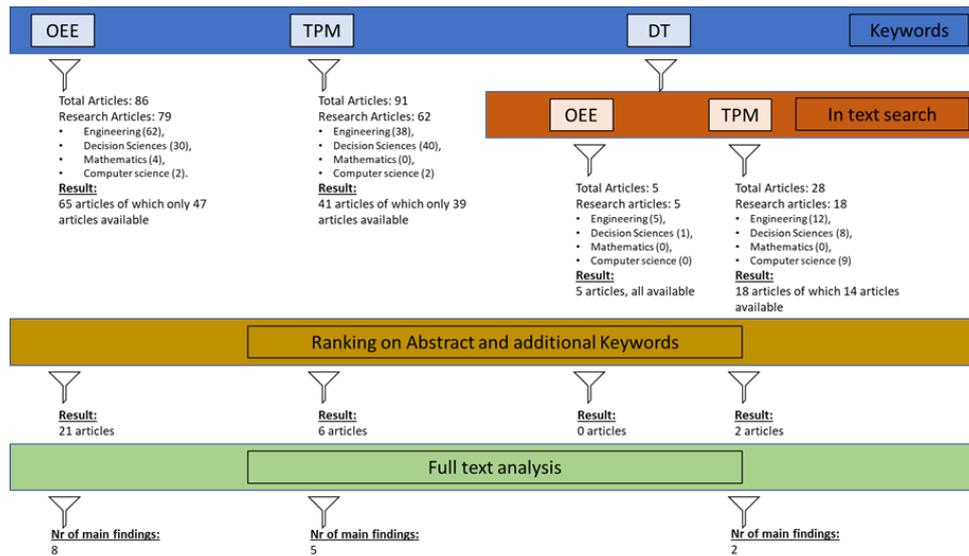


Figure 2.4: Article grouping by topic after scoring and review.

Overall Equipment Effectiveness (OEE): Key Themes from 21 Articles

1. OEE and Total Productive Maintenance (TPM) Concepts

- TPM plays a crucial role in ensuring uninterrupted production flow and involves participation from all organizational levels.
- OEE serves as a core metric to assess tangible benefits from TPM implementation.
- Mathematical decision models can enhance OEE and improve overall manufacturing performance.

2. OEE Evaluation and Analysis

- OEE is widely adopted to evaluate manufacturing system effectiveness.
- Different OEE methodologies yield varying results.
- OEE analysis supports identification of improvement areas and process optimization.

3. OEE and Performance Measurement

- OEE provides a strong basis for production system performance assessment.
- Automation can raise OEE by minimizing downtime and improving throughput.
- Discrete Event Simulation (DES) is a valuable method for evaluating and optimizing OEE.

4. OEE in Logistics and Material Supply

- OEE analysis can extend to logistics and commissioning processes.
- Loss identification via OEE leads to improved logistics efficiency.
- OEE assists in quantifying value-added components in material supply.

5. OEE and Decision-Making

- Fuzzy Associative Memory (FAM) models help assess maintenance conditions.
- Association Rule Mining (ARM) supports OEE-based decision modeling.
- OEE estimation models accounting for uncertainty improve decision accuracy.

6. OEE Implementation and Optimization

- TPM implementation correlates with improved OEE.
- Customized OEE models help detect key time losses and drive operational excellence.
- Digitalization and data transparency enhance TPM metrics and work efficiency.

7. Capacity Optimization and Costing Models

- Mathematical models support capacity planning and operational efficiency.
- Balancing maximum capacity with optimal efficiency is essential.
- Optimization efforts must consider and avoid operational inefficiencies.

8. Global Efficiency and Manufacturing System Optimization

- OEE and Overall Throughput Effectiveness (OTE) are essential for system effectiveness.
- Decision models benefit from formal methods and simulation tools.
- Integration of lean principles and fuzzy logic controllers fosters system-level optimization.

TPM Findings: 6 Research Articles

1. Maintenance Operation Improvement and Planning

- Introduction of a novel approach for enhancing maintenance operations.

- Development of a Computer-Aided Maintenance Resource Planning (CAMRP) system for multiple CNC machining centers.

2. TPM Implementation and Availability Improvement

- TPM implementation supported by 5S methods improved availability in an automotive line.

3. Maintenance Strategy and Management

- Enhanced preventive maintenance planning within an energy solutions firm.

4. Predictive Maintenance and Failure Rate Prediction

- An ensemble learning model was proposed for failure prediction under varying conditions.

5. Lean Management and Operational Efficiency

- Lean principles were used to establish causal links between operations and performance, focusing on knowledge transfer and data transparency.

Digital Twin Findings: 2 Research Articles

1. Subsystem Selection for Digital Twin Development (Unmanned Underwater Vehicle)

- A generic methodology was defined to select system components for condition-based monitoring using digital twins.
- The selected "triage" subset of components yields the highest reliability gains at minimal cost.
- The process is adaptable to any system aiming to maximize reliability through digital twin integration.

2. Text Mining for Predictive Maintenance Management

- A classification scheme for predictive maintenance was proposed.
- Text mining was incorporated into a cyber-physical system model to support proactive decision-making.
- The tool helps maintenance managers schedule interventions upon receiving failure alerts.

2.4 Results and Discussion

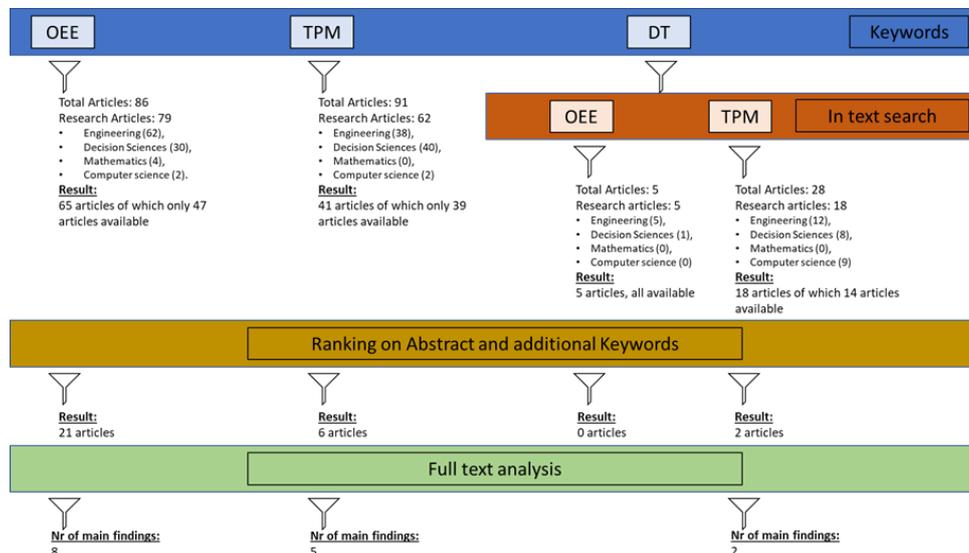


Figure 2.5: Abstraction process from articles to main findings.

The findings from the articles tagged with the OEE keyword highlight that the definition and classification of losses significantly impact the calculation of OEE. Different methodologies and evaluation approaches yield variations in computed OEE values, emphasizing the need for accurate and standardized loss identification to improve operational effectiveness [11, 12, 18].

Taking this further, it becomes evident that consistency in the calculation method and definitions used for determining OEE between a physical system and its digital twin is essential for comparability, insight accuracy, validation, and seamless integration. This alignment allows for effective decision-making and performance optimization. The rationale includes:

1. **Comparability:** Shared calculation methods enable direct comparison between real-world systems and their digital twins, helping identify gaps and discrepancies in performance.
2. **Accuracy of Insights:** Consistent definitions across systems ensure that OEE results are meaningful, supporting accurate and shared understanding in decision-making.
3. **Validation and Verification:** Matching calculation logic allows validation of the digital twin by comparing its outputs to real-world OEE data, improving trust in its predictive capabilities.

4. **Seamless Integration:** Uniform OEE metrics facilitate smooth interaction between physical and digital environments, enabling ongoing data exchange and synchronized monitoring.

While no study directly addresses the correlation between OEE degradation and TPM decision-making via a digital twin, several papers indirectly support this link:

- OEE is identified as the primary measure for quantifying TPM strategy effectiveness [11].
- A mathematical decision model to improve TPM indicators and OEE performance has been proposed [6].
- OEE is recognized both for assessing system performance and identifying areas of improvement [12].
- In a study on the wooden door manufacturing industry, Association Rule Mining (ARM) was used to model OEE, facilitating better TPM management strategies [4].

These findings reinforce the close relationship between OEE and TPM. Monitoring OEE degradation within a digital twin framework can enable advisory systems to recommend TPM actions, maintaining or improving operational effectiveness.

A **digital twin** is a dynamic simulation of a physical object, system, or process, created by integrating real-time data from sensors, IoT devices, and historical records. It serves as a virtual mirror of physical reality, capable of simulating behavior and system dynamics.

An **executable digital twin**, in contrast, is a software application that goes beyond static simulation. It interacts with its environment, functions as a sensor node, and provides active feedback. It contributes directly to monitoring, control, and optimization in real time.

The first referenced digital twin paper [16] offers a process to identify a “triage” subset of system components that yield the most reliability improvement per monitoring cost. Focusing the digital twin on these elements supports cost-effective, high-impact maintenance strategies.

The second referenced work [17] integrates text mining into a cyber-physical model. Applied within an executable digital twin, it allows the twin to process textual maintenance records, detect patterns related to failure prediction, and support predictive scheduling by alerting managers of potential risks. This enhances responsiveness and precision in maintenance execution.

2.5 Conclusion

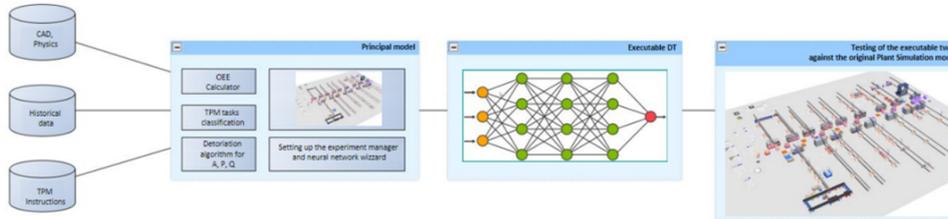


Figure 2.6: Solution proposed in “Improving the efficiency of maintenance processes in manufacturing systems using Industry 4.0 tools”.

Based on the above literature review, it can be concluded that the concept—illustrated in Figure 2.6—of an *executable digital twin* as an advisor in Total Productive Maintenance (TPM) is both promising and feasible. However, it remains underexplored in existing academic and industrial research. Literature addressing digital twins and TPM underscores the potential benefits of integrating these technologies, including real-time monitoring, predictive analytics, and enhanced decision-making support for maintenance processes.

Nevertheless, a noticeable gap persists: no standardized approach yet exists for calculating Overall Equipment Effectiveness (OEE) in a way that supports consistent comparison between real systems and their digital twins. This highlights the need for a general, universally applicable OEE calculation methodology. Additionally, the literature suggests that further investigation is required to understand the relationship between OEE degradation and TPM actions—specifically, how real-time changes in OEE might inform or trigger TPM decision-making.

While the theoretical foundation for executable digital twins is strong, practical implementation studies are sparse. Future research should explore:

- The development of executable digital twins tailored for TPM guidance.
- The identification and prioritization of critical system components and maintenance processes to be modeled.
- The integration of advanced analytics and predictive algorithms within the digital twin environment.
- The evaluation of impacts on cost-efficiency, reliability, and overall operational performance.

In summary, the integration of an executable digital twin into TPM represents an innovative but underdeveloped research domain. While the potential benefits are acknowledged in the literature, concrete implementation strategies and validation studies are lacking. Standardization of OEE metrics and deeper exploration of their real-time correlation with maintenance needs could unlock new paths for digital transformation in industrial maintenance strategy. Further research in this direction would significantly contribute to optimizing maintenance operations and decision-making practices.

3 Research Overview, Aims, and Methodological Framework

3.1 General Research Objective

The overarching objective of this dissertation is the development of a probabilistic, timestamp-driven decision framework for maintenance in serial production systems.

The research aims to transform Overall Equipment Effectiveness (OEE) from a descriptive efficiency indicator into a probabilistic control variable capable of supporting maintenance timing decisions under uncertainty.

More specifically, the dissertation seeks to:

- Establish a generalized, timestamp-based OEE formulation that is independent of subjective or predefined performance parameters.
- Model degradation dynamics mathematically and simulate their influence on OEE evolution.
- Integrate degradation modeling and OEE signals into a Bayesian decision framework capable of quantifying the confidence of safe maintenance postponement.
- Validate the proposed framework using discrete-event simulation (DES) generated synthetic datasets under controlled degradation scenarios.

The central research hypothesis states that maintenance decisions in serial production can be transformed from interval-based scheduling problems into probabilistic confidence threshold problems when OEE is reconstructed from pure timestamp data and interpreted within a Bayesian inference framework.

3.2 Specific Research Objectives

To operationalize this general aim, the dissertation pursues the following specific objectives:

1. Develop a parameter-independent OEE calculator derived solely from timestamped production logs.
2. Reinterpret OEE as a probabilistic measure representing the likelihood of operating under ideal manufacturing conditions.
3. Formulate a sawtooth-based hazard rate model representing degradation and periodic maintenance reset dynamics.
4. Design and train Bayesian Neural Networks (BNNs) to estimate the probability that OEE will drop below a predefined threshold within the next decision interval.
5. Analyze the behaviour of the Bayesian decision rule under aggressive, insufficient, and stable maintenance regimes.

3.3 Methodological Architecture

The methodological framework follows a layered structure, combining measurement theory, reliability modeling, simulation experimentation, and probabilistic machine learning.

3.3.1 Data Foundation

The research relies exclusively on synthetic datasets generated through discrete-event simulation.

Synthetic production logs are generated using Siemens Plant Simulation, where degradation dynamics and maintenance interventions are explicitly modeled.

This controlled environment enables systematic variation of:

- Failure distributions (Negative Exponential vs. Weibull),
- Maintenance interval strategies,
- Degradation intensity parameters.

The use of synthetic data allows isolation of causal relationships between degradation, OEE evolution, and maintenance decisions under statistically consistent conditions.

3.3.2 Timestamp-Based OEE Reconstruction

OEE is reconstructed exclusively from cycle time distributions.

Cycle times are computed as:

$$CT_i = t_i - t_{i-1}$$

where CT_i = cycle time of part i t_i = timestamp of part i

Performance losses are identified using robust statistical measures (interquartile range and median-based thresholds), while extreme outliers are classified as availability losses.

This formulation eliminates the need for predefined ideal cycle times and preserves objectivity across different production systems.

3.3.3 Degradation Modeling

To represent realistic failure behavior beyond constant hazard assumptions, a Weibull-based hazard model with shape parameter $\beta = 2$ is employed:

$$h(t) = \frac{\beta}{\eta^\beta} t^{\beta-1}$$

where $h(t)$ = hazard rate at time t η = scale parameter β = shape parameter

For $\beta = 2$, the hazard rate increases linearly, forming the basis of a sawtooth degradation model with periodic maintenance resets.

This structure reflects dynamic midlife degradation behaviour and allows analytical comparison with Negative Exponential failure processes.

3.3.4 Discrete Event Simulation

Siemens Plant Simulation is used to generate controlled degradation scenarios.

The DES environment enables:

- Comparison of Negative Exponential vs. Weibull hazard structures,
- Evaluation of aggressive, insufficient, and stable maintenance regimes,
- Sensitivity analysis of maintenance interval variation.

The simulation environment functions as an experimental laboratory for generating statistically consistent training and validation datasets for Bayesian inference.

3.3.5 Bayesian Decision Modeling

Maintenance is reformulated as a probabilistic confidence problem:

$$P(OEE_{t+1} < OEE_{threshold} \mid Evidence, \neg M_t)$$

where OEE_{t+1} = predicted OEE in next interval $OEE_{threshold}$ = critical performance threshold M_t = maintenance action at time t

A Bayesian Neural Network estimates this probability and its uncertainty.

Maintenance is triggered if:

$$P > \beta$$

where β represents the predefined risk tolerance level.

This transforms preventive maintenance from fixed scheduling into confidence-based intervention.

3.4 Scientific Contribution

The methodological novelty of this research lies in the integration of:

- A universally applicable timestamp-only OEE formulation,
- A mathematically consistent degradation model,
- A probabilistic maintenance decision rule based on Bayesian inference,
- And a simulation-based experimental validation framework.

The approach bridges classical TPM logic and modern probabilistic modeling, establishing a unified analytical framework for maintenance decision support in serial production environments.

Structure of the Dissertation

The dissertation is organized as follows:

- Chapter 4 formalizes the probabilistic reinterpretation of OEE.
- Chapter 5 develops the degradation and hazard rate modeling.
- Chapter 6 introduces the Bayesian Neural Network framework.
- Chapter 7 presents the simulation experiments and validation.
- Chapter 8 analyzes logistical implications of probabilistic maintenance.
- Chapter 9 synthesizes quantitative findings and outlines future research directions.
- Chapter 10 scientific Statements

4 Development of a General OEE Calculator.

4.1 Introduction

In modern discrete event simulation and production systems analysis, accurately capturing the dynamic behavior of machines, processes, and lines is essential. [19, 20] This work explores the mathematical and theoretical foundations underlying the modeling and evaluation of production systems, focusing on difference calculus, Little's Law, Overall Equipment Effectiveness (OEE), and their integration into probabilistic maintenance decision-making frameworks.

4.2 Probabilistic Foundation of Manufacturing Performance

Manufacturing systems operate under inherent uncertainty, where equipment effectiveness emerges from the complex interaction of availability, performance, and quality factors. Traditional OEE approaches treat these as deterministic ratios, but this perspective fails to capture the probabilistic nature of real manufacturing environments.

4.2.1 Reinterpreting OEE as a Probability Measure

Rather than viewing OEE as a simple multiplicative ratio, we propose reinterpreting it as a probability measure that quantifies the likelihood of achieving ideal manufacturing conditions:

$$\text{OEE} = P(\text{ideal manufacturing conditions}) \quad (4.1)$$

This probabilistic interpretation recognizes that manufacturing effectiveness is fundamentally about the system's ability to consistently operate under optimal conditions. Each component of the traditional OEE formula can be understood as a conditional probability:

$$\text{Availability} = P(\text{equipment operational} \mid \text{scheduled time}) \quad (4.2)$$

$$\text{Performance} = P(\text{optimal speed} \mid \text{equipment operational}) \quad (4.3)$$

$$\text{Quality} = P(\text{conforming output} \mid \text{production completed}) \quad (4.4)$$

The overall OEE then represents the joint probability of all ideal conditions occurring simultaneously:

$$\begin{aligned} P(\text{maintenance needed} \mid \text{OEE observations}) &\propto \text{Likelihood} \times \text{Prior} \\ &= P(\text{OEE observations} \mid \text{maintenance needed}) \times P(\text{maintenance needed}) \end{aligned} \quad (4.5)$$

4.2.2 Implications for Discrete Manufacturing Systems

In discrete manufacturing environments, this probabilistic perspective aligns naturally with the event-driven nature of production systems. Each production cycle represents a discrete trial where the system either achieves or fails to achieve ideal conditions. The statistical OEE approach leverages this discrete structure by:

- Using empirical distributions of cycle times rather than theoretical specifications
- Treating performance variations as probabilistic events rather than deterministic deviations
- Enabling uncertainty quantification essential for maintenance decision-making

4.2.3 Connection to Bayesian Reasoning

The probabilistic formulation naturally extends to Bayesian frameworks where prior beliefs about system performance can be updated with observed data. This creates a foundation for adaptive maintenance strategies where:

$$\begin{aligned} P(\text{maintenance needed} \mid \text{OEE observations}) &\propto \\ P(\text{OEE observations} \mid \text{maintenance needed}) &\times P(\text{maintenance needed}) \end{aligned} \quad (4.6)$$

This Bayesian perspective enables the integration of OEE signals with maintenance decision logic, forming the theoretical bridge to the predictive maintenance framework developed in subsequent chapters.

Digital Twin Integration

The probabilistic interpretation of OEE enables seamless integration with digital twin technologies. Since both the physical system and its digital counterpart operate under uncertainty, probability distributions provide a common language for comparison and validation. This standardization allows meaningful performance comparisons across different systems and supports real-time updating of digital twin parameters based on observed manufacturing data. [21]

The mathematical foundations developed in the following sections build upon this probabilistic perspective, showing how Little's Law and queuing theory provide the analytical tools to operationalize these concepts in practice.

4.3 Fundamentals of Difference Calculus in Production Modeling

In the field of discrete simulations, especially within production units operating on discrete events or time steps, finite difference calculus plays a crucial role. [22] It approximates the derivative of a function at specific points using discrete measurements, providing valuable insights into dynamic production behavior.

Key types include the forward difference

$$\Delta f(x) = f(x + h) - f(x) \quad (4.7)$$

which measures change over a forward step h , useful for monitoring hourly output shifts in $P(t)$ via

$$\Delta P(t) = P(t + 1) - P(t) \quad (4.8)$$

The backward difference

$$\nabla f(x) = f(x) - f(x - h) \quad (4.9)$$

compares current with previous outputs, and the central difference

$$\delta f(x) = f\left(x + \frac{h}{2}\right) - f\left(x - \frac{h}{2}\right) \quad (4.10)$$

balances forward and backward perspectives.

These finite differences approximate derivatives of production functions, identify growth trends, and support dynamic equation modeling, such as discrete, first-order non-

homogeneous difference equations [23]:

$$P(n + 1) = A(n)P(n) + G(n) \tag{4.11}$$

Similarly, time dynamics can be modeled by

$$T(n + 1) = B(n)T(n) + H(n) \tag{4.12}$$

where $B(n)$ and $H(n)$ incorporate process efficiency factors and external time adjustments. [24]

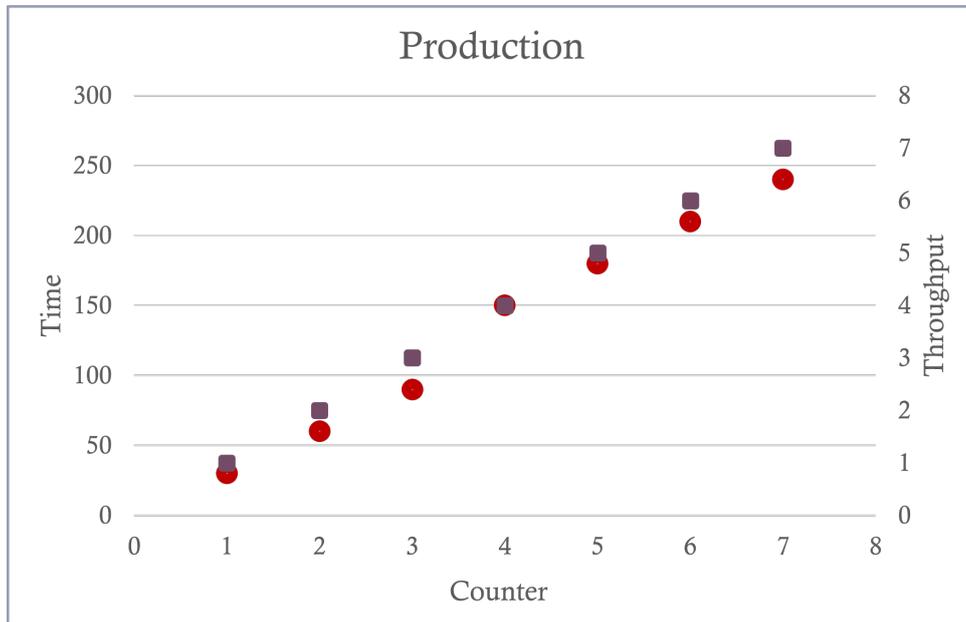


Figure 4.1: Production through the lens of discrete events.

Recursive Definitions

Production can be modeled as a piecewise or event-driven system characterized by two interrelated recursive functions:

$$\begin{cases} \text{Throughput}_N = F(\text{Throughput}_{N-1}, \text{Current Cycle Time}) \\ \text{Time}_N = F(\text{Time}_{N-1}, \text{Average Cycle Time}) \end{cases} \tag{4.13}$$

These functions form a discrete-time representation of production where each index N corresponds to a production event, possibly defined by the start or end of a processing cycle.

Although the above recursive functions form the foundational logic of discrete-event based simulation, their practical utility in day-to-day operations remains limited. For

general estimation and performance analysis, a more concise and universally applicable relation is desirable. Such a relation is provided by Little's Law, which offers a closed-form estimator linking average system load, throughput, and lead time.

4.4 Application of Little's Law in Discrete Manufacturing

4.4.1 Characteristics of Queuing Systems

The characteristics of queuing systems can be quantitatively analyzed using six core elements [25]:

1. **Arrival Pattern of Customers:** Described by the distribution of inter-arrival times. Patterns may be stationary or non-stationary. Customer behaviors such as balking, renegeing, and jockeying reflect impatience.
2. **Service Pattern of Servers:** Service times are generally stochastic and can be individual or batch. Service behavior may depend on the number of waiting customers (state-dependence) or time (non-stationarity).
3. **Number of Servers:** A key design trade-off between customer delay and operational cost. Multi-server configurations can include shared queues or individual queues. Shared-queue systems tend to be more efficient.
4. **Queue Discipline:** Refers to the rule by which customers are selected for service, including FCFS, LCFS, RSS, processor sharing, polling, and priority disciplines (preemptive or non-preemptive).
5. **System Capacity:** Refers to the maximum number of customers allowed in the system. In finite systems, arrivals may be blocked upon reaching capacity.
6. **Stages of Service:** Queuing systems may consist of one or multiple service stages, possibly including feedback or recycling loops (e.g., rework or repeated routing).

4.4.2 Standard Notation (Kendall's Notation)

A queuing system is denoted using Kendall's notation as:

$$A/B/X/Y/Z$$

where:

- A: Inter-arrival time distribution,

- B : Service time distribution,
- X : Number of parallel servers,
- Y : System capacity (maximum number of entities allowed),
- Z : Queue discipline.

Queueing System Characteristics

Characteristic	Symbol	Explanation
Interarrival-time distribution (A) Service-time distribution (B)	M	Exponential
	D	Deterministic
	E_k	Erlang type k ($k = 1, 2, \dots$)
	H_k	Mixture of k exponentials
	PH	Phase type
	G	General
Parallel servers (X)	$1, 2, \dots, \infty$	
System capacity (Y)	$1, 2, \dots, \infty$	
Queue discipline (Z)	FCFS	First come, first served
	LCFS	Last come, first served
	RSS	Random selection for service
	PR	Priority
	GD	General discipline

Example: $M/D/2/\infty/FCFS$ represents a system with exponential inter-arrival times, deterministic service times, two servers, infinite capacity, and a first-come-first-served discipline.

4.4.3 Little's Law

Little's Law is a foundational principle in queuing theory and is widely applicable in the analysis of dynamic systems. [26] It defines a fundamental relationship among three key quantities:

- λ : the average arrival rate of customers (or items) into the system,
- W : the average time a customer (or item) spends within the system,
- L : the average number of customers (or items) present in the system.

The law states:

$$L = \lambda \cdot W \quad (4.14)$$

Given any two of these three variables, the third can be directly inferred. This relationship holds under minimal assumptions: only that entities depart after arriving ($W \geq 0$) and the system is stable (i.e., the arrival rate equals the departure rate over time). It does not require assumptions like Poisson arrivals, exponential service times, or specific queue disciplines.

Examples of System Definitions:

1. System = Queue + Server:

$$L = \lambda \cdot W \quad (4.15)$$

with W including both waiting and service times.

2. System = Queue Only:

$$L_q = \lambda \cdot W_q \quad (4.16)$$

where L_q is average number waiting and W_q is average waiting time.

3. System = Single Server:

$$L_s = \lambda \cdot \mathbb{E}[S] = 1 - p_0 \quad (4.17)$$

where $\mathbb{E}[S]$ is the expected service time and p_0 is the fraction of idle time.

4. System with Blocking (Finite Capacity):

$$L = (1 - p_b) \cdot \lambda \cdot W \quad (4.18)$$

where p_b is the blocking probability and W is measured only for admitted entities.

4.4.4 Geometric Interpretation and Proof of Little's Law

While formal proofs of Little's Law rely on rigorous stochastic process theory, a compelling geometric argument can be given to illustrate its essence. This section develops the intuition behind the result, progressively relaxing assumptions on the system's state at the beginning and end of the observation period.

Geometric Setting

Consider a queuing system observed over a finite time interval $[0, T]$. Let:

- $A(t)$: cumulative number of *Arrivals* by time t ,
- $D(t)$: cumulative number of *Departures* by time t ,
- $N(t) = A(t) - D(t)$: number of customers *in the system* at time t ,
- N : total number of arrivals during $[0, T]$,
- W_k : time customer k spends in the system,
- $W = \frac{1}{N} \sum_{k=1}^N W_k$: average time in system,
- $\lambda = \frac{N}{T}$: average arrival rate,
- $L = \frac{1}{T} \int_0^T N(t) dt$: average number of customers in the system over time.

Assume that each customer is represented by a horizontal rectangle from arrival time A_k to departure time $D_k = A_k + W_k$, forming a stack of shaded regions. The total shaded area then equals the total time all customers spend in the system:

$$\int_0^T N(t) dt = \sum_{k=1}^N W_k \tag{4.19}$$

Dividing the left and right term by T gives:

$$\frac{1}{T} \int_0^T N(t) dt = \frac{1}{T} \sum_{k=1}^N W_k = \frac{N}{T} \left(\frac{1}{N} \sum_{k=1}^N W_k \right) \tag{4.20}$$

Which resolves in:

$$L = \lambda \cdot W \tag{4.21}$$

Case 1: System Starts and Ends Empty

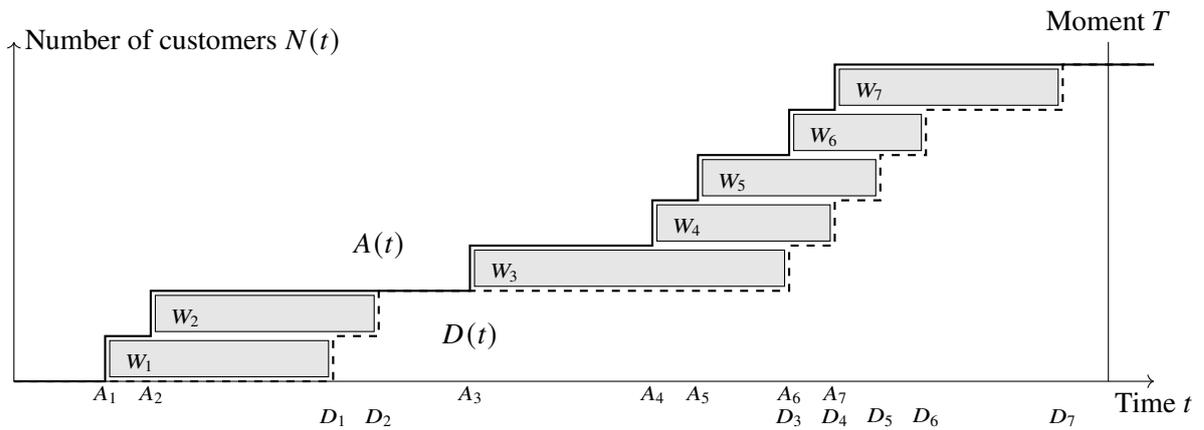


Figure 4.2: Geometric representation of Little's Law (in-order departures)

If the system is empty at both $t = 0$ and $t = T$, then $A(0) = D(0)$ and $A(T) = D(T)$. In this case, the total shaded area (sum of waiting times) coincides exactly with the integral

of the number of customers in the system and Little's Law gives an accurate result.

Case 2: Out-of-Order Departures

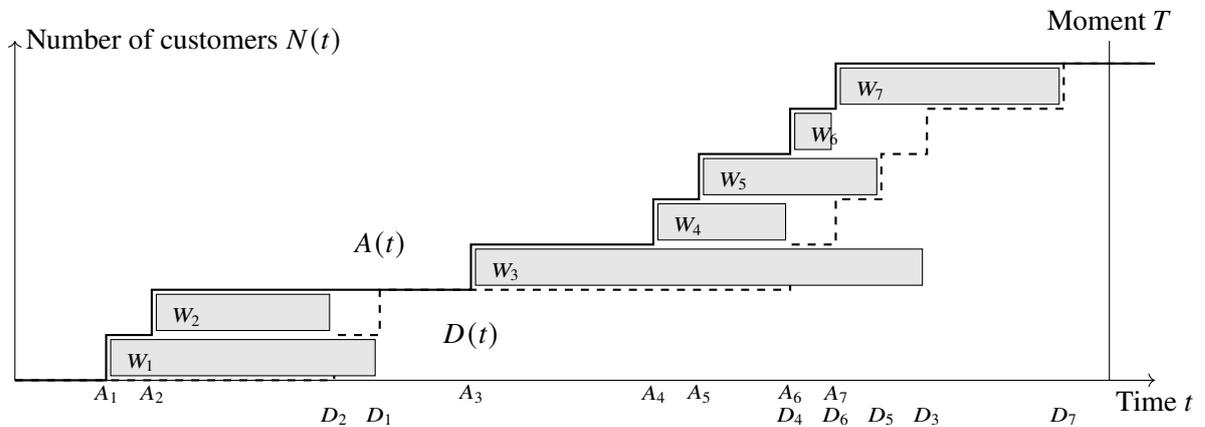


Figure 4.3: Geometric representation of Little's Law (out of order departures)

If customers depart in a different order than their arrivals, the rectangles representing their time in the system no longer align neatly with the departure curve $D(t)$. However, for every portion of a rectangle that extends beyond $D(t)$, there exists a corresponding empty space between $A(t)$ and $D(t)$. These regions can be rearranged to preserve total area, and thus the equality still holds, leading again to:

$$L = \lambda \cdot W \tag{4.22}$$

Case 3: System Does Not End Empty

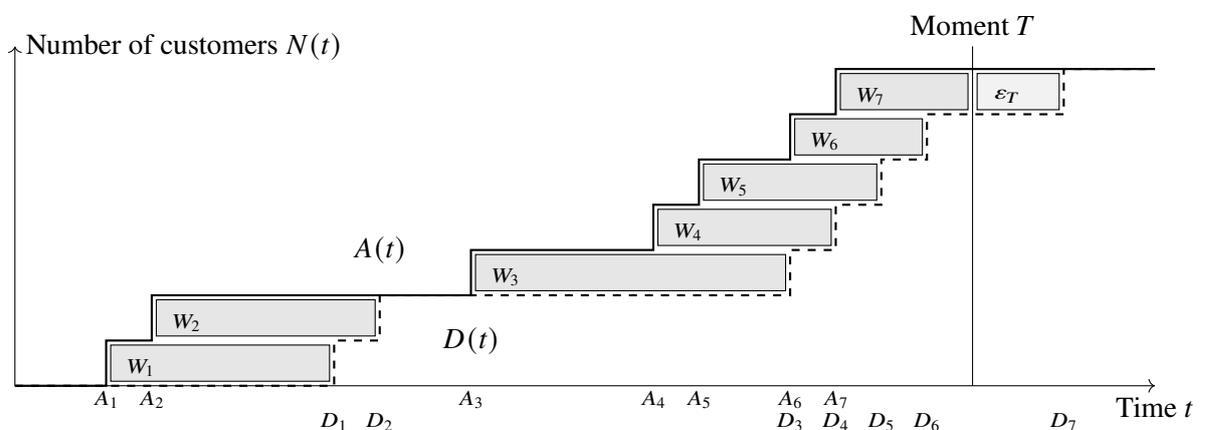


Figure 4.4: Geometric representation of Little's Law (in-order departures, no empty ending)

If the system does not end in an empty state, then some rectangles W_k extend beyond T . The integral

$$\int_0^T N(t) dt \tag{4.23}$$

only accounts for time spent in the system up to time T . Therefore, the equality becomes:

$$\sum_{k=1}^N W_k \approx \int_0^T N(t) dt + \varepsilon_T \tag{4.24}$$

where ε_T represents the excess time beyond the horizon. Over a sufficient long time span, this mismatch becomes negligible:

$$\lim_{T \rightarrow \infty} \frac{\varepsilon_T}{T} = 0 \tag{4.25}$$

Hence, in the limit:

$$L = \lambda \cdot W \tag{4.26}$$

still holds.

Case 4: System Does Not Start Empty

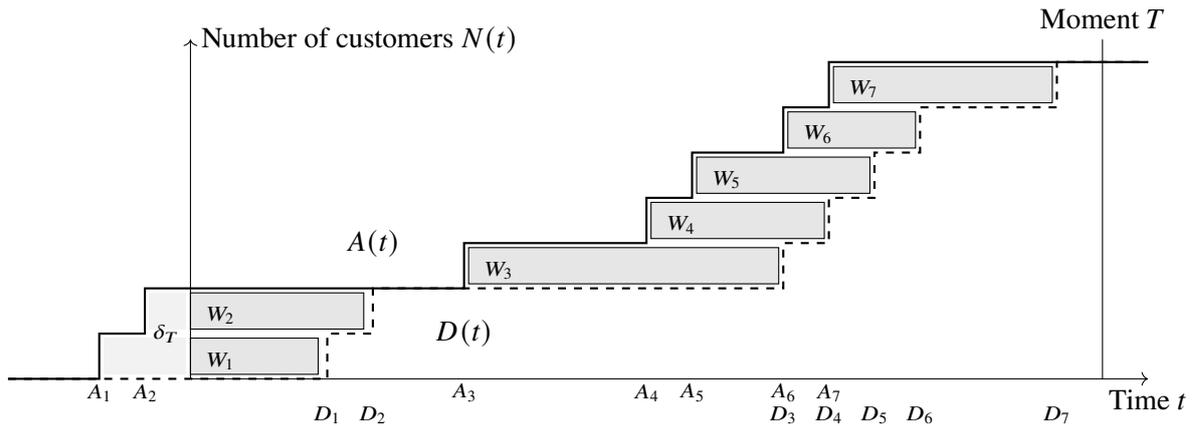


Figure 4.5: Geometric representation of Little's Law (in-order departures, occupied start)

If the system does not start empty, there are already customers present at time $t = 0$, who contribute area under the $N(t)$ curve but are not included in $A(t)$. Let the number of customers present initially be $N(0)$. These individuals are not part of the N arrivals

counted in $A(t)$, so their time in system is not included in $\sum_{k=1}^n W_k$, but they do contribute to the integral $\int_0^T N(t) dt$. Thus, the shaded area understates the actual time integral:

$$\int_0^T N(t) dt \approx \sum_{k=1}^n W_k + \delta_T \quad (4.27)$$

with δ_T accounting for initial residents. Again, as $T \rightarrow \infty$, this discrepancy becomes negligible:

$$\lim_{T \rightarrow \infty} \frac{\delta_T}{T} = 0 \quad (4.28)$$

so the average number in the system still converges to:

$$L = \lambda \cdot W \quad (4.29)$$

Summary

Regardless of whether the system begins or ends in an empty state, or whether customers depart in or out of arrival order, the geometric intuition behind Little's Law holds in the limit as $T \rightarrow \infty$, provided that:

- the long-run arrival rate $\lambda = \lim_{t \rightarrow \infty} \frac{A(t)}{t}$ exists and is finite,
- the long-run average time in system per customer $W = \lim_{N \rightarrow \infty} \frac{1}{N} \sum_{k=1}^N W_k$ exists and is finite.

Then, the average number of customers in the system satisfies:

$$L = \lambda \cdot W \quad (4.30)$$

This relationship is both robust and universal, making it one of the most powerful tools in queuing theory and performance analysis.

Examples at different system levels include:

- Machine level: 5 parts/minute, 2 minutes average duration $\rightarrow L = 10$ parts.
- Work sequence: 20 parts/hour, 3 hours average $\rightarrow L = 60$ parts.
- Line segment: 40 parts/hour, 2 hours average $\rightarrow L = 80$ parts.
- Entire line: 200 parts/hour, 5 hours average $\rightarrow L = 1000$ parts.

Properly observing λ and W over time ensures stable estimates. These insights underpin the design of buffers, performance targets, and reliability measures, as discussed in [96] and [97].

4.5 From Classical OEE to a Data-Driven Estimator

This section builds directly on the theoretical foundations established in the previous parts of this chapter, particularly Little's Law, which demonstrates that throughput, work-in-process, and cycle time are invariant relationships across systems and subsystems. By analogy, OEE should also be invariant at different levels of analysis: the overall effectiveness of a line must equal the effectiveness of its parts, even if the categorisation of losses shifts between availability, performance, or quality. The approach presented here applies this reasoning to derive a timestamp-based estimator of OEE that is both data-driven and consistent with queuing-theoretic principles.

4.5.1 Motivation and Theoretical Foundation

- **Availability** retains its conventional interpretation:

$$A = \frac{\text{Operation Time}}{\text{Loading Time}} = \frac{\text{Loading Time} - \text{Downtime}}{\text{Loading Time}} \quad (4.31)$$

This captures time-based efficiency and is consistent with TPM-aligned definitions when system states (operating, down) are well-defined.

- **Quality** also follows standard practice:

$$Q = \frac{\text{Processed Quantity} - \text{Defects}}{\text{Processed Quantity}} \quad (4.32)$$

assuming reliable and complete detection of nonconforming items.

4.5.2 Different levels of perception

In practice, OEE raises a methodological difficulty: the same formula may yield different results depending on the **level of aggregation**.

- At machine level, performance reflects whether a unit runs at its design speed. Blocking and starvation appear as local availability losses.
- At line level, performance reflects whether the flow between machines is synchronised. Time loss in one unit may reappear as a speed effect at another.
- At system level, OEE should remain invariant: the overall number must represent the ratio of good output to the maximum achievable output under ideal conditions, regardless of decomposition. Only the categorisation of losses shifts between levels.

This mirrors the logic of Little's Law, which holds for a system and all its subsystems:

$$L = \lambda \cdot W \quad (4.33)$$

remains invariant, even if the interpretation of L , λ , and W differs across levels.

4.5.3 Reinterpreting Performance as flow synchronisation

While Availability and Quality remain aligned with classical TPM definitions, **Performance** requires reinterpretation in flow-oriented systems. Instead of viewing performance as a simple cycle-time ratio, we define it as a factor describing **flow stability**:

$$P = (1 - P_0) \times (1 - P_b) \quad (4.34)$$

where

$$1 - P_0 = \text{probability of not being starved (adequate upstream supply)}, \quad (4.35)$$

$$1 - P_b = \text{probability of not being blocked (adequate downstream buffering)}. \quad (4.36)$$

Thus, performance measures how well the buffers before and after a machine are designed to keep the flow stable. [27]

- **Speed Rate** ($1 - P_0$): indicates how often a machine avoids running empty.
- **Net Operating Rate** ($1 - P_b$): indicates how often a machine avoids being blocked and how well downstream disruptions are resolved.

4.5.4 Operating Speed and Net Operating Rate

The performance degradation due to downstream congestion (blocking) is captured by the **Operating Speed**, defined as:

$$\text{Operating Speed} = \frac{CT_{\text{theo}}}{CT_{\text{act}}} = \frac{\lambda_{\text{act}}}{\lambda_{\text{theo}}} = 1 - p_b \quad (4.37)$$

where:

- λ_{act} : observed throughput rate
- λ_{theo} : ideal or design throughput rate
- p_b : probability the machine is blocked (output prevented)

Likewise, upstream starvation is reflected in the **Net Operating Rate**, given by:

$$\begin{aligned} \text{Net Operating Rate} &= \frac{\text{Processed Amount} \cdot CT_{\text{act}}}{\text{Operation Time}} \\ &= (1 - p_0) \cdot \lambda_{\text{act}} \cdot CT_{\text{act}} \\ &= (1 - p_0) \end{aligned} \tag{4.38}$$

Here, p_0 denotes the probability the machine is starved—i.e., waiting for an incoming part.

Deriving the Performance Factor

By combining the above, we arrive at a more complete and behaviorally grounded expression for performance:

$$P = (1 - p_b) \cdot (1 - p_0) \cdot \lambda_{\text{act}} \cdot CT_{\text{act}} \tag{4.39}$$

In practice, $\lambda_{\text{act}} \cdot CT_{\text{act}} \approx 1$ under stable conditions, so the essential drivers of performance loss become the probabilities p_b and p_0 .

4.5.5 Toward an Empirical and Distribution-Free Definition

To avoid dependence on theoretical queuing models or ideal cycle assumptions, we reinterpret p_0 and p_b empirically using the quantiles of the observed cycle time distribution. Instead of normalizing by the interquartile range (IQR), we normalize by the full outlier limit range (OLR), which reflects the data range excluding extreme outliers:

$$\text{OLR} = (Q_3 + 1.5 \cdot \text{IQR}) - \max(0, Q_1 - 1.5 \cdot \text{IQR}) \tag{4.40}$$

Using this, we define:

- $p_0 \approx \frac{Q_3 - \text{Median}}{\text{OLR}}$ (starvation tail)
- $p_b \approx \frac{\text{Median} - Q_1}{\text{OLR}}$ (blocking front)

This leads to a purely timestamp-driven calculation of performance:

$$P = (1 - p_0) \cdot (1 - p_b) \tag{4.41}$$

4.5.6 Toward a data-driven estimator

Cycle-time distributions derived from event logs offer a practical way to operationalise these concepts. From timestamps of part completions, cycle times are computed and classified using robust statistical thresholds:

- Median (Q_2): central tendency of stable operation,
- Q_3 (third quartile): upper bound of expected variation.

Classification rules:

1. Cycles $> Q_3 \Rightarrow$ Failures (Availability losses).

Availability is reduced by the excess time beyond Q_3 :

$$A = 1 - \frac{\sum_{CT_i > Q_3} (CT_i - Q_3)}{T_{\text{Load}}} \quad (4.42)$$

2. Cycles \leq Median \Rightarrow Blocking recoveries ($1 - P_b$).

3. Median $<$ Cycles $\leq Q_3 \Rightarrow$ Starvation ($1 - P_0$).

From the relative frequencies:

$$1 - P_b = \frac{\#\{CT \leq \text{Median}\}}{N}, \quad 1 - P_0 = \frac{\#\{\text{Median} < CT \leq Q_3\}}{N} \quad (4.43)$$

Performance then follows as:

$$P = (1 - P_b)(1 - P_0). \quad (4.44)$$

Quality is calculated as:

$$Q = \frac{\text{Good Parts}}{\text{All Parts}}. \quad (4.45)$$

Finally:

$$OEE = A \cdot P \cdot Q \quad (4.46)$$

4.5.7 Advantages of the data-driven approach

1. **Consistent across levels** – OEE invariance is preserved.
2. **Flow-oriented** – Performance reflects synchronisation, not just cycle-time ratios.
3. **Data-driven thresholds** – Median and Q_3 adapt to system behaviour.
4. **Actionable decomposition** – Direct mapping to interventions (maintenance, buffer design, process stabilisation).

4.5.8 Solving the CT Controversy

A recurring problem in the practical application of OEE is the definition of the theoretical cycle time CT_{theo} . In many industrial environments this value is taken directly from machine documentation or design specifications. However, such values are often negotiated, adapted to local conventions, or even strategically chosen to present performance in a favorable light. In simulation models the problem is amplified: abstraction levels and simplifications frequently alter the meaning of CT_{theo} , which leads to endless debates on whether the “right” cycle time was applied. [28, 29] As a result, much of the discussion around OEE drifts away from effectiveness and instead focuses on the politics of parameter selection.

To resolve this controversy, we propose a purely statistical definition of cycle times that is grounded in the data itself. The approach distinguishes between the *actual cycle time* CT_{act} and the *theoretical cycle time* CT_{theo} :

$$CT_{\text{act}} = \text{median of the empirical cycle time distribution,} \quad (4.47)$$

$$CT_{\text{theo}} = \begin{cases} \text{first non-zero mode of the cycle time distribution,} & \text{if such a mode exists,} \\ \text{median of the distribution,} & \text{otherwise.} \end{cases} \quad (4.48)$$

This definition is motivated by the repetitive nature of industrial machines. If a machine is engineered to perform a task in a repetitive manner, the resulting data will often show a recurring cycle time that manifests as a statistical mode. Such a mode is interpreted as the “design rhythm” of the machine. If several distinct modes occur, this typically indicates that multiple product types with different cycle times have been processed on the same resource. In cases where no significant non-zero mode exists, or where the first mode is at zero, the machine has not revealed a stable design rhythm in the data, and the median provides the most robust fallback.

In this way, the definitions of CT_{act} and CT_{theo} become transparent, reproducible, and free from political or model-dependent bias. They are entirely derived from empirical observations and therefore suitable both for real-world measurements and for simulation studies. By anchoring cycle times in statistical properties of the data, the persistent controversy around “which cycle time should be used” in OEE calculations is resolved, and the discussion can return to its true focus: identifying and eliminating losses.

Relation to Little’s Law. The proposed statistical definition of cycle times also establishes a direct parallel to Little’s Law. Little’s Law guarantees that the relation $L = \lambda \cdot W$

holds for every system and subsystem, regardless of structure or aggregation. Similarly, the choice of CT_{theo} must not depend on managerial conventions or documentation practices but should be derived from the same empirical distribution that governs the observed throughput. By grounding CT_{theo} in the mode (or, if absent, the median) of the cycle time distribution, we ensure that the measure is system-invariant: the overall OEE value remains stable across levels of analysis, while only the categorisation of losses (availability, performance, quality) shifts. This parallel to Little's Law provides a theoretical justification for abandoning documented cycle times in favour of statistical ones, as it restores consistency and invariance to OEE calculations.

Distinguishing Efficiency from Productivity: A Maintenance-Centered Perspective

The median-based approach to OEE calculation represents a fundamental shift from traditional interpretations that often conflate *efficiency* with *productivity*. This distinction is critical for maintenance decision-making and requires careful positioning relative to established practice.

The Commercialization Problem in OEE Traditional OEE implementations frequently promote the misconception that “higher OEE equals more output.” This stems from using theoretical cycle times that may be outdated, overly optimistic, or strategically chosen to present favorable performance metrics. The result is a focus on volume maximization rather than waste elimination—a misalignment with lean manufacturing principles and maintenance objectives.

In maintenance contexts, this volume-centric interpretation creates perverse incentives:

- Deferring maintenance to maintain high availability numbers
- Running equipment beyond optimal speeds to improve performance metrics
- Accepting quality degradation to maintain throughput targets

Reframing OEE for Maintenance Excellence The median-based calculation fundamentally changes what “improvement” means:

- **Traditional interpretation:** OEE improvement = increased output relative to theoretical maximum
- **Maintenance-centered interpretation:** OEE improvement = reduced waste relative to demonstrated capability

This reframing aligns with core maintenance objectives:

- **Consistency over speed:** Reducing cycle time variability indicates better equipment condition
- **Sustainability over peaks:** Median-based baselines reflect sustainable operating conditions
- **Actual vs. aspirational:** Performance measured against real capability, not design specifications

Communicating the Paradigm Shift For practitioners accustomed to traditional OEE, the median-based approach requires explicit positioning:

- **Efficiency vs. Capacity:** Emphasize that OEE measures how efficiently available capacity is used, not how much capacity exists
- **Waste identification:** Frame improvements as waste reduction rather than output increases
- **Predictive value:** Highlight how consistency metrics better predict maintenance needs than volume metrics

Implementation Considerations When introducing this approach in industrial settings:

- Present median-based OEE alongside traditional calculations during transition periods
- Focus on trend analysis rather than absolute values
- Use case studies showing how variability reduction correlates with equipment reliability

This conceptual foundation supports the maintenance decision framework by ensuring that OEE signals reflect equipment condition rather than production pressure, making them more reliable indicators for maintenance timing decisions.

On reversing OEE to infer cycle times

It is a common but misleading practice to “reverse engineer” cycle times from the OEE formula. This approach assumes that OEE can be treated as a deterministic design specification, which is incorrect.

The median cycle time CT_{act} defined here is a statistical description of observed operation, not a fixed design parameter. Likewise, the theoretical cycle time CT_{theo} ,

whether defined by the mode or median of the distribution, reflects empirical behaviour rather than machine specifications.

Machine designers work with fixed design values (e.g., maximum spindle speed or nominal takt time), while OEE is an effectiveness ratio based on actual performance. Reversing the OEE equation to produce a “design” cycle time conflates performance measurement with engineering specification and should therefore be avoided.

4.5.9 Illustrative Interpretation of CT_{theo} and OEE Decomposition

Figure 4.6 provides an illustrative, discretised view of how the theoretical cycle time CT_{theo} acts as a structural lower bound and how the classical OEE factors A , P , and Q emerge from deviations in realised behaviour. The figure is intentionally schematic: each numbered block represents one produced unit, and the horizontal extent corresponds to elapsed production time.

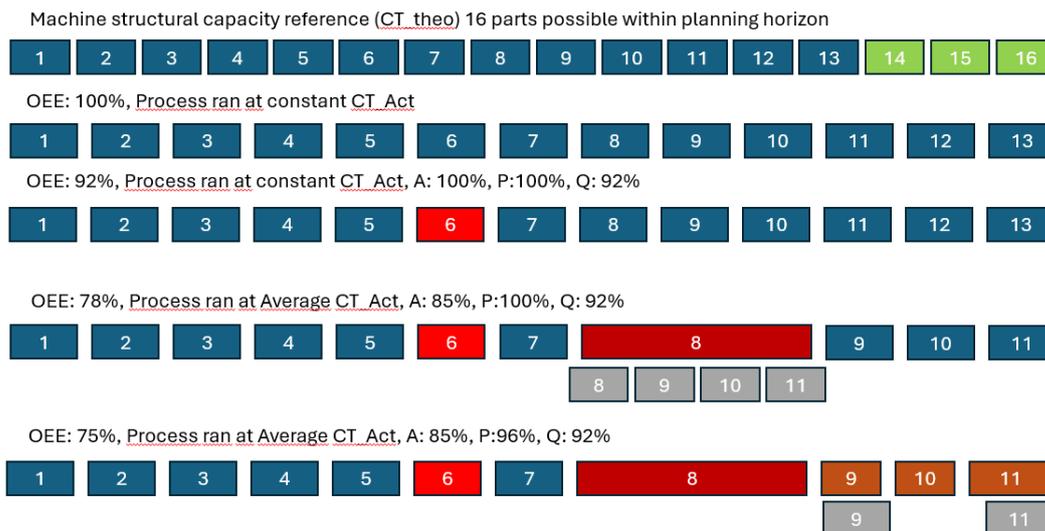


Figure 4.6: Conceptual illustration of CT_{theo} as a structural capacity reference and its relationship to the OEE decomposition. The top line represents the theoretical maximum throughput (16 parts within the planning horizon) implied by CT_{theo} ; the remaining lines show realised production with progressively introduced losses in Q , A , and P .

Structural meaning of CT_{theo} (top line). The first line does *not* represent an OEE scenario. Instead, it defines the *structural capacity reference*: if a process could operate continuously at its minimal stable cycle time, then within a fixed planning horizon a maximum of 16 units would be feasible. This reference expresses a physical lower bound on cycle time, hence

$$CT_{act} \geq CT_{theo} > 0. \quad (4.49)$$

Importantly, demand limitations (e.g., only 13 units are required) affect utilisation of available capacity but do not reduce OEE when the planning horizon is defined over the *planned* production time. Therefore, the top line is used solely to anchor the interpretation of CT_{theo} and to separate capacity utilisation from efficiency losses.

Ideal realised operation (second line). The second line illustrates ideal operation in which the process runs at constant $CT_{\text{act}} = CT_{\text{theo}}$ and produces the required number of units without scrap or interruptions. Under these conditions $A = 1$, $P = 1$, and $Q = 1$, yielding $OEE = 1$.

Quality loss only (third line). The third line introduces a single rejected unit (highlighted), while the cycle time remains constant. The availability and performance components remain ideal ($A = 1$, $P = 1$), and OEE is reduced purely by quality:

$$OEE = A \cdot P \cdot Q = 1 \cdot 1 \cdot Q. \quad (4.50)$$

Availability loss with stable cycle time (fourth line). The fourth line illustrates unplanned idle time (extended red segment), which reduces availability. The cycle time during productive periods remains stable, hence $P \approx 1$, while Q is unchanged relative to the quality-loss case. The example demonstrates that a reduction in throughput can occur without changing the productive cycle time itself, because lost operating time reduces A :

$$OEE = A \cdot P \cdot Q \approx A \cdot 1 \cdot Q. \quad (4.51)$$

Combined availability and performance loss (fifth line). Finally, the fifth line combines availability loss with a reduction in performance, shown as a systematic increase in effective cycle time during productive periods (brown blocks). Here, availability is reduced by downtime, quality remains below unity due to scrap, and performance is reduced because CT_{act} exceeds CT_{theo} :

$$P = \frac{CT_{\text{theo}}}{CT_{\text{act}}} < 1. \quad (4.52)$$

This case is central for the present work, because it corresponds to gradual performance deterioration that is not directly observable as a binary failure event, yet accumulates into measurable throughput loss and increased uncertainty.

Implication for estimating CT_{theo} from data. In high-frequency timestamp data, naïve estimators such as $\min(\Delta t)$ are unstable because measurement noise and stochastic effects may yield arbitrarily small observed intervals. For this reason, CT_{theo} is interpreted as

the *most frequently reached minimal stable cycle time*, inferred from the dominant inlier cluster of the cycle-time distribution after robust filtering (e.g., IQR-based). This ensures $CT_{\text{theo}} > 0$ and preserves the interpretability of the OEE decomposition.

4.5.10 Routines Used (Python)

The Python routines responsible for cycle-time reconstruction and OEE estimation are part of the structured data enrichment layer described in Appendix C. The appendix provides a formal description of the transformation pipeline, derived metrics, and implementation logic.

5 Transforming Maintenance Tasks into Failure Profiles

5.1 From Maintenance Actions to Hazard Functions

The failure behaviour of technical systems is often described by the *bathtub curve*, which can be represented by the Weibull distribution. The shape parameter β distinguishes between three regimes:

- $\beta < 1$: decreasing hazard (infant mortality, dominated by early defects),
- $\beta = 1$: constant hazard (stable phase, time-independent failures),
- $\beta > 1$: increasing hazard (wear-out and ageing effects).

In this thesis we restrict our analysis to the stable operating phase, where $\beta = 1$ and the hazard function reduces to the Negative Exponential form:

$$h(t) = \lambda, \tag{5.1}$$

with λ constant. Failures are then random, time-independent events — an assumption consistent with serial production environments where machines are operated within their designed life span.

TPM as Hazard Control

Total Productive Maintenance (TPM) in this context consists of two complementary types of prescribed interventions [3]:

- **Autonomous maintenance:** Routine tasks performed by operators, usually linked to shift changes or setup activities (e.g. lubrication, cleaning, inspection). These aim to prevent small disturbances from accumulating and thereby keep the hazard baseline at its expected level. [30]

- **Planned maintenance:** Scheduled activities carried out by the maintenance team, often based on OEM directives or expert knowledge. These include recalibration, replacement of wear parts, or more elaborate overhauls, typically at weekly, monthly, or annual intervals. Planned maintenance resets the effective hazard rate by restoring the equipment closer to its reference condition.

Together, autonomous and planned actions define TPM. Their effect can be interpreted as controlling the *timing and magnitude of resets* in the hazard trajectory, while operating under the assumption of constant baseline hazard between interventions. [31]

Predictive Maintenance as Opposite Approach

In contrast to TPM, predictive maintenance does not follow fixed schedules. Instead it relies on intensive data collection and analytics to forecast the future trajectory of $h(t)$. By estimating parameters such as β and η dynamically, predictive methods aim to time interventions exactly when degradation signals indicate an elevated risk. This approach, while potentially more efficient, is costly, requires high data quality, and is less plannable in practice.

Research Objective

The objective pursued here is to shift TPM in the direction of predictive maintenance:

- Reducing the over-aggressiveness of fixed-interval preventive activities,
- While avoiding the full data-intensity and unpredictability of predictive approaches.

This results in a hybrid concept: TPM remains structured and plannable, but is guided by stochastic indicators (e.g. OEE decay, hazard resets) that make it more adaptive to real operating conditions.

5.2 Sawtooth Hazard Rate Model

While the exponential and Weibull models capture fundamental aspects of failure behaviour, they are insufficient to reflect the influence of repeated maintenance. Classical preventive interventions reset the condition of equipment to a state closer to “as good as new.” The result is a hazard trajectory that grows during operation but is periodically reduced. This gives rise to a *sawtooth hazard rate model*, which alternates between degradation growth and reset events.

5.2.1 Mathematical Formulation

The hazard function of a Weibull distribution is given by

$$h(t) = \frac{\beta}{\eta} \left(\frac{t}{\eta} \right)^{\beta-1}, \quad (5.2)$$

with β the shape parameter and η the scale parameter. [32]

To simulate periodic resets, consider a fixed maintenance interval τ . For $t \in [k\tau, (k+1)\tau)$, where $k \in \mathbb{N}$ denotes the maintenance cycle, the hazard rate is defined as:

$$h_{\text{saw}}(t) = \frac{\beta}{\eta} \left(\frac{t - k\tau}{\eta} \right)^{\beta-1}. \quad (5.3)$$

At each reset point $t = k\tau$, the effective ‘‘age’’ of the component is reduced and the hazard rate returns to baseline. The resulting profile resembles a sawtooth: increasing with time until maintenance restores the condition.

5.2.2 Balancing Weibull and Exponential Areas

In the stable operating phase ($\beta = 1$), the hazard rate is constant:

$$h_{\text{exp}}(t) = \lambda, \quad (5.4)$$

representing time-independent, memoryless failures.

The sawtooth model ($\beta > 1$) produces an alternating sequence of growth and reset. The key idea is that the *area under the hazard curve* can be used to benchmark maintenance aggressiveness. [33]

- If the cumulative area under $h_{\text{saw}}(t)$ over one maintenance cycle is approximately equal to the area under $h_{\text{exp}}(t)$ for the same interval, maintenance is *balanced*: neither too frequent nor too sparse.
- If the sawtooth area is significantly larger, interventions are too frequent: the system is over-maintained, incurring unnecessary downtime and cost.
- If the sawtooth area is significantly smaller, interventions are too sparse: the system experiences excess degradation, increasing the probability of failure before scheduled maintenance.

Formally, the balance condition can be expressed as:

$$\int_0^{\tau} h_{\text{saw}}(t) dt \approx \int_0^{\tau} h_{\text{exp}}(t) dt. \quad (5.5)$$

5.2.3 Interpretation

This perspective links preventive maintenance directly to reliability metrics. By comparing the area under the sawtooth hazard with the constant exponential baseline, one obtains a measure of whether maintenance actions are too aggressive or too relaxed.

- A **ratio near unity** implies optimal balance: the planned interventions compensate degradation without overspending resources.
- A **ratio above unity** signals excessive maintenance effort.
- A **ratio below unity** indicates insufficient intervention, risking unexpected failures.

The sawtooth model therefore provides a mathematically tractable framework that captures both the stochastic nature of failures and the deterministic impact of scheduled maintenance. By introducing the area-balance criterion, it also offers a practical diagnostic tool to evaluate whether the chosen maintenance regime is appropriately tuned.

5.3 From Maintenance Actions to Maintenance–Failure Modelling

5.3.1 Theoretical Framework and Standing Assumptions

We restrict attention to the stable operating phase of the bathtub curve ($\beta = 1$), so failures are time-independent with constant hazard $\lambda = 1/\text{MTBF}$. [34] Let MTBF and MTTR denote mean time between failures and mean time to repair, respectively. Availability is

$$A = \frac{\text{MTBF}}{\text{MTBF} + \text{MTTR}} \quad (5.6)$$

Rather than modelling failures explicitly, we replace them by their maintenance equivalents:

$$\tau^* \approx \frac{\text{MTBF}}{2}, \quad d \approx \frac{\text{MTTR}}{2} \quad (5.7)$$

Rule (5.7) balances the expected "risk accumulation" between resets against planned downtime.

5.3.2 Implementation Framework in Discrete Event Simulation

The sawtooth hazard rate model requires specific implementation logic to accurately represent maintenance timing and effects. [35] Based on validation studies using Plant Simulation 2504, the following framework ensures proper integration of maintenance activities within production systems.

Maintenance Control Logic

Maintenance implementation is managed through a Generator object that controls both timing and duration of maintenance activities:

Interval Parameter: Defines the time between maintenance activations, effectively setting the period from the end of one maintenance event to the start of the next:

$$\text{Maintenance Interval} = \tau^* = \frac{\text{MTBF}}{2} \quad (5.8)$$

Duration Parameter: Defines the maintenance execution time span:

$$\text{Maintenance Duration} = d \approx \frac{\text{MTTR}}{2} \quad (5.9)$$

Failure Profile Management

The sawtooth model requires dynamic failure profile management synchronized with maintenance events:

Start of Maintenance Event:

- If a failure is active, deactivate it immediately
- Deactivate the failure profile to prevent new failures during maintenance
- Reset the hazard accumulation to baseline

End of Maintenance Event:

- Set failure profile start time to current simulation time
- Set failure profile stop time to the start of next scheduled maintenance
- Reactivate the failure profile with reset hazard rate

Initialization Protocol: Both failure profile and maintenance generator are initialized at simulation start to ensure consistent timing throughout the simulation run.

5.3.3 Parameter Optimization and Calibration

The effectiveness of the sawtooth model depends critically on proper parameter calibration. The scale parameter η in the Weibull distribution must be optimized to align with the baseline NegExp hazard rate.

Mathematical Optimization

Setting the Weibull hazard rate equal to the NegExp rate at the optimal maintenance point $t = \mu$:

$$\frac{2\mu}{\eta^2} = \frac{1}{\mu} \quad (5.10)$$

Solving for the optimal scale parameter:

$$\eta = \sqrt{2\mu} \quad (5.11)$$

This calibration ensures that maintenance is triggered precisely when the accumulating hazard matches the constant baseline risk, optimizing the balance between preventive action and resource utilization.

5.3.4 Buffering and System-Level Integration

Buffering and system-level stabilisation. Inter-operation buffers dampen the realisation of upstream/downstream disturbances at the workstation level. We encode buffer quality by a single mitigation factor $B \in [0, 1]$:

$$B \approx 0.8 \quad (\text{well designed buffer}), \quad B \approx 0.6 \quad (\text{poorly designed buffer}).$$

A convenient way to express the effect is a *buffered availability* that accounts for the fraction of unavailability the buffer can absorb:

$$A_b = 1 - (1 - B)(1 - A) = A + B(1 - A). \quad (5.12)$$

When quality is stable ($Q \approx 1$), the *Performance* term of OEE primarily reflects the net operating rate (stability) and operating speed; (5.12) provides a lower bound on the stability component that the buffer can sustain against short failures and MTTR asymmetries.

Postponement test from Performance and time since maintenance. Let t_s denote time elapsed since the last maintenance job and τ^* the planning anchor (??). Fix an

operational OEE target OEE_{\min} (or equivalently a Performance target). Given the current observations P_{obs} and Q_{obs} (often $Q_{\text{obs}} \approx 1$), predict the minimum Performance that still meets the target under buffered reliability [36]:

$$P_{\min} = \frac{OEE_{\min}}{A_b Q_{\text{obs}}} \quad (\text{clip to } [0, 1]). \quad (5.13)$$

Define the *age ratio* $r := t_s/\tau^*$ and a simple *postponement score* that trades off current headroom in Performance against elapsed time [37]:

$$\text{MPS} = \underbrace{\frac{P_{\text{obs}} - P_{\min}}{1 - P_{\min}}}_{\text{performance headroom}} \times \underbrace{\max\{0, 1 - r\}}_{\text{time headroom}}. \quad (5.14)$$

A practical decision rule is:

If $\text{MPS} \geq \theta$ (e.g. $\theta = 0.3$), postpone; else, execute maintenance.

Interpretation: (i) A_b raises the floor in (5.13) when buffering is effective (large B), meaning the line can tolerate more local disturbances without harming OEE; (ii) as t_s approaches τ^* ($r \rightarrow 1$), the time headroom vanishes, making postponement increasingly unlikely; (iii) when $Q_{\text{obs}} < 1$, (5.13) tightens and MPS drops, so quality drift automatically curtails postponement.

Worked algebra and implementation hints.

- (a) Compute A from (??) using current MTBF and MTTR; set $\tau^* = \text{MTBF}/2$, $d = \text{MTTR}$.
- (b) Choose $B \in \{0.8, 0.6\}$ from the buffer audit; compute A_b via (5.12).
- (c) Fix OEE_{\min} (plant policy) and read $P_{\text{obs}}, Q_{\text{obs}}$ from the OEE calculator.
- (d) Form P_{\min} using (5.13), $r = t_s/\tau^*$, and MPS from (5.14).
- (e) Decide with threshold θ ; optionally tune θ by backtesting to align with risk appetite.

Why this remains low data intensity. All inputs are already present in standard shopfloor reporting [38]: MTBF, MTTR (from downtime logs), buffer grade B (once per line from a design audit), and $P_{\text{obs}}, Q_{\text{obs}}$ (from the OEE calculator). The method therefore shifts TPM toward a predictive posture—using Performance and elapsed time to *time* interventions—without the burden of continuous high-frequency condition monitoring. [39, 40]

Integration with Production Scheduling

The maintenance framework must integrate seamlessly with production planning:

- **Maintenance Windows:** Align maintenance intervals with natural production breaks where possible
- **Resource Coordination:** Ensure maintenance duration accounts for technician availability and spare parts logistics
- **Performance Monitoring:** Use OEE degradation signals to trigger early maintenance when $P_{\text{obs}} < P_{\text{min}}$

5.3.5 Validation and Performance Metrics

The framework's effectiveness is measured through key performance indicators that capture both reliability and efficiency improvements [41]:

- **Time Between Failures:** Extended intervals demonstrate hazard reset effectiveness
- **Maintenance Efficiency:** Ratio of preventive to corrective maintenance actions
- **System Availability:** Overall uptime considering both failures and planned maintenance
- **Throughput Stability:** Reduced variability in production output

Statistical validation through simulation experiments confirms that the sawtooth model with optimized parameters consistently outperforms fixed-interval maintenance strategies, particularly in systems with moderate to high availability requirements. [42]

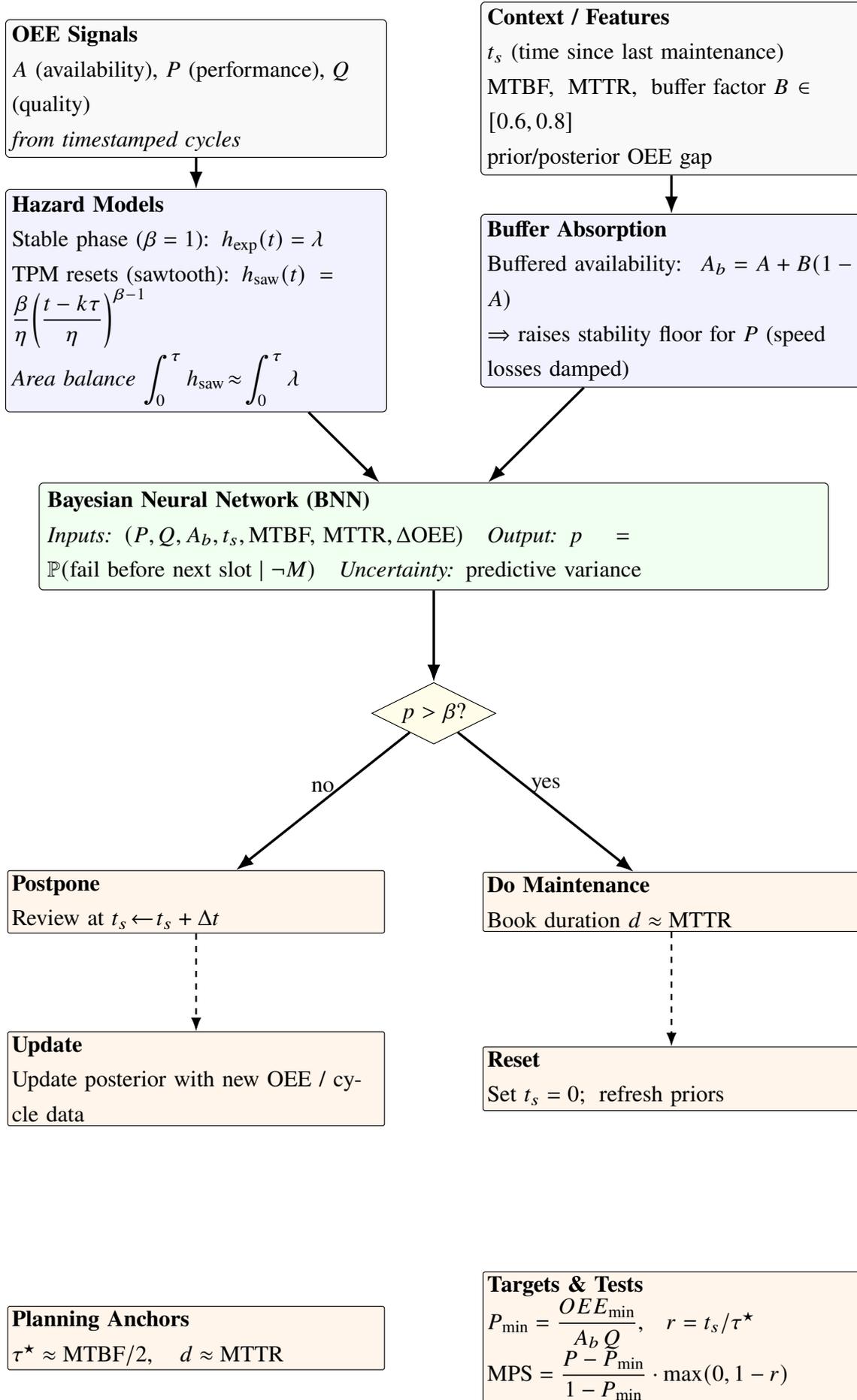


Figure 5.1: Vertical layout: (1) OEE & context; (2) hazard & buffer; (3) BNN (two-column span); (4) decision; (5) actions; (6) update/reset; (7) spacer; (8) anchors & tests.

6 Bayesian Neural Networks for Confidence-Based Maintenance Decision-Making

6.1 Introduction

The previous chapters established the probabilistic foundations for interpreting equipment performance in high-frequency production environments. Chapters 3 and 4 modelled degradation behaviour using Weibull-based sawtooth hazard profiles and Negative Exponential decay, while Chapter 5 reframed the Overall Equipment Effectiveness (OEE) as a probability measure defined over event-spaces for availability, performance, and quality. These developments motivate a transition away from deterministic maintenance strategies toward a fully probabilistic decision framework capable of quantifying uncertainty and supporting risk-aware intervention timing.

In this chapter, we introduce the conceptual basis for using Bayesian Neural Networks (BNNs) as the core mechanism for predicting the probability of unacceptable performance loss. [43, 44, 45] We do not yet describe the implementation or architecture of the BNN—that is deferred to Chapter 7. Instead, we establish the reasoning behind selecting Bayesian methods, explain the probabilistic interpretation of the OEE signal, and formalise the decision rule that governs maintenance execution or postponement. [46, 47]

6.2 Limitations of Deterministic and Conventional Predictive Methods

Classical preventive maintenance (PM) relies on fixed intervals that disregard the stochastic nature of degradation. Condition-based maintenance (CBM) improves responsiveness but typically relies on hard thresholds that do not capture uncertainty in either measurement or process behaviour. Both approaches implicitly assume that degradation evolves deterministically, which is incompatible with short-cycle serial production where small variations accumulate rapidly into nonlinear throughput losses. [48]

Conventional neural networks offer improvements over rule-based systems but remain in-

adequate for maintenance decision-making. [49] A standard neural network produces only a single point estimate and lacks any mechanism to express confidence or quantify predictive uncertainty. Such models are particularly fragile when trained partly on synthetic data or when exposed to distributional shift—conditions that are inherent in degradation modelling. [50, 51, 52] Furthermore, neural networks cannot incorporate domain knowledge in the form of priors and cannot express the epistemic uncertainty required for risk-based decision rules.

Maintenance decisions, however, depend not only on what the future may hold but also on how *confident* we are in that forecast. This leads directly to the need for a Bayesian formulation.

Model Selection Rationale

The selection of Bayesian Neural Networks was not driven by classification accuracy considerations but by architectural requirements of maintenance governance.

Several alternative modelling strategies were evaluated conceptually:

- Deterministic threshold models provide binary decisions without uncertainty quantification and therefore cannot support risk-aware maintenance deferral.
- Conventional neural networks produce point estimates \hat{p}_t without epistemic uncertainty and require full retraining if degradation distributions shift.
- Generative adversarial approaches (GANs) could model complex time-series degradation patterns but impose substantial computational overhead and contradict the design objective of lightweight industrial deployability.

Bayesian Neural Networks uniquely satisfy the combined requirements of probabilistic interpretability, calibrated uncertainty representation, and computational feasibility under constrained industrial hardware.

6.3 Maintenance as a Bayesian Confidence Decision Problem

Predictive maintenance is often framed through the question:

“What is the probability of failure if no action is taken?”

However, for operational decision-making in production environments, a more meaningful question is:

“How confident are we that we can safely do nothing?”

This reframing aligns maintenance with Bayesian reasoning. Rather than predicting a time-to-failure point estimate, we estimate the probability that OEE will drop below a critical threshold OEE_{crit} in the next time step, given the current state and the decision not to perform maintenance. Formally,

$$p_t = P(Y_{t+1} = 1 \mid \mathbf{x}_t, \neg M_t), \quad (6.1)$$

where $Y_{t+1} = 1$ indicates that $OEE_{t+1} < OEE_{crit}$. This probability expresses a quantified loss of confidence in the system’s resilience.

In this work, the event $Y_{t+1} = 1$ is not interpreted as a single-step forecast. Instead, it denotes the occurrence of an unacceptable performance deviation at any point before the next planned maintenance opportunity. Accordingly, p_t represents a horizon-based confidence measure evaluating whether the system can be safely operated until the next scheduled intervention, given the current state \mathbf{x}_t and the decision to postpone maintenance. A Bayesian Neural Network (BNN) is then used to estimate p_t , and maintenance becomes a confidence test with respect to a chosen risk threshold β [53, 54]:

$$\begin{aligned} p_t > \beta &\Rightarrow \text{perform maintenance,} \\ p_t \leq \beta &\Rightarrow \text{postpone maintenance.} \end{aligned} \quad (6.2)$$

This rule is interpretable, flexible, and directly tied to the organisation’s risk appetite. [55]

6.4 Bayesian Interpretation of the OEE Signal

To support the Bayesian decision process, we reinterpret OEE measurements in a probabilistic manner. Performance measured *before* the machine, under ideal assumptions of availability and quality, defines a *prior* OEE. Performance measured *after* the machine yields a *posterior* OEE. The gap between these two reflects unanticipated degradation and acts as a likelihood signal in Bayesian reasoning:

$$OEE_{posterior} - OEE_{prior} \Rightarrow \text{evidence of deviation from ideal behaviour.} \quad (6.3)$$

The terms “prior” and “posterior” OEE are used here in an operational Bayesian sense. They do not constitute a full generative Bayesian update, but rather represent probabilistically interpretable performance indicators that enable confidence-based reasoning under uncertainty.

Cycle-time measurements, processed through interquartile range (IQR)-based filtering as

introduced in Chapter 5, further differentiate performance losses from availability losses. This minimal-data approach requires only timestamps and becomes the foundation for constructing features that describe the instantaneous and historical state of degradation. The Bayesian formulation thus ties together:

- the event-space definition of OEE,
- the stochastic degradation models,
- the probabilistic decision rule,
- and the need for explicit uncertainty quantification.

6.5 Why Bayesian Neural Networks Are Required

A BNN treats its weight parameters w as random variables with distributions rather than fixed values. [56]

In practical terms, this implies that the BNN does not yield a single deterministic estimate of p_t , but rather a distribution over plausible values. This distribution is obtained through repeated forward evaluations of the network under different parameter realisations, allowing epistemic uncertainty to be quantified explicitly and propagated to the decision level. Despite this repeated evaluation, inference remains computationally efficient, since each forward pass corresponds to a standard neural network evaluation and avoids the need for explicit stochastic simulation or analytical integration over degradation trajectories. [57] This provides several conceptual advantages essential for maintenance scheduling [58]:

1. **Uncertainty quantification:** Predictions carry confidence intervals rather than single values.
2. **Regularisation through priors:** Synthetic training data, common in early degradation modelling, does not dominate the model due to Bayesian regularisation.
3. **Robustness under distributional shift:** As real operational data differ from synthetic data, the posterior adapts gradually. [59, 60]
4. **Online update capability:** New cycle-time observations update the posterior, making the model self-correcting. [61, 62]
5. **Probabilistic interpretability:** Outputs represent explicit probabilities supporting the threshold rule defined above.

In contrast, a conventional neural network would provide only a single point estimate of p_t , forcing maintenance decisions to rely on hard thresholds without any measure of confidence. The Bayesian formulation therefore enables a fundamentally different class of decision rules based on uncertainty bounds rather than deterministic predictions.

These properties enable a BNN to function not merely as a predictive model but as a probabilistic decision-support system aligned with the structure of industrial uncertainty.

6.6 Conceptual Decision Workflow

The conceptual workflow for confidence-based maintenance decision-making is illustrated in Figure 6.1. [63] The figure shows how time-based signals are preprocessed into OEE-derived features, interpreted by the BNN, and transformed into a probability p_t that drives the confidence threshold rule.

The probability p_t is understood as a confidence measure derived from a distribution of predictions rather than a single estimate, and may therefore be evaluated conservatively using quantiles in accordance with the organisation's risk tolerance.

Before turning to the implementation details, it is instructive to consider the conceptual behaviour of the BNN under different maintenance regimes.

In high-utilisation serial production systems, even small performance deviations may be amplified nonlinearly through variability effects, motivating a probabilistic decision framework rather than deterministic threshold-based control.

Overly Aggressive Maintenance

When interventions occur much more frequently than necessary, degradation rarely accumulates. The BNN therefore exhibits:

- near-zero failure probability p_t ,
- narrow uncertainty bands,
- consistent recommendations to postpone maintenance.

Insufficient Maintenance

If maintenance is deferred excessively, degradation patterns become irregular, and risk increases. The BNN responds with:

- elevated failure probability p_t ,
- widening uncertainty,

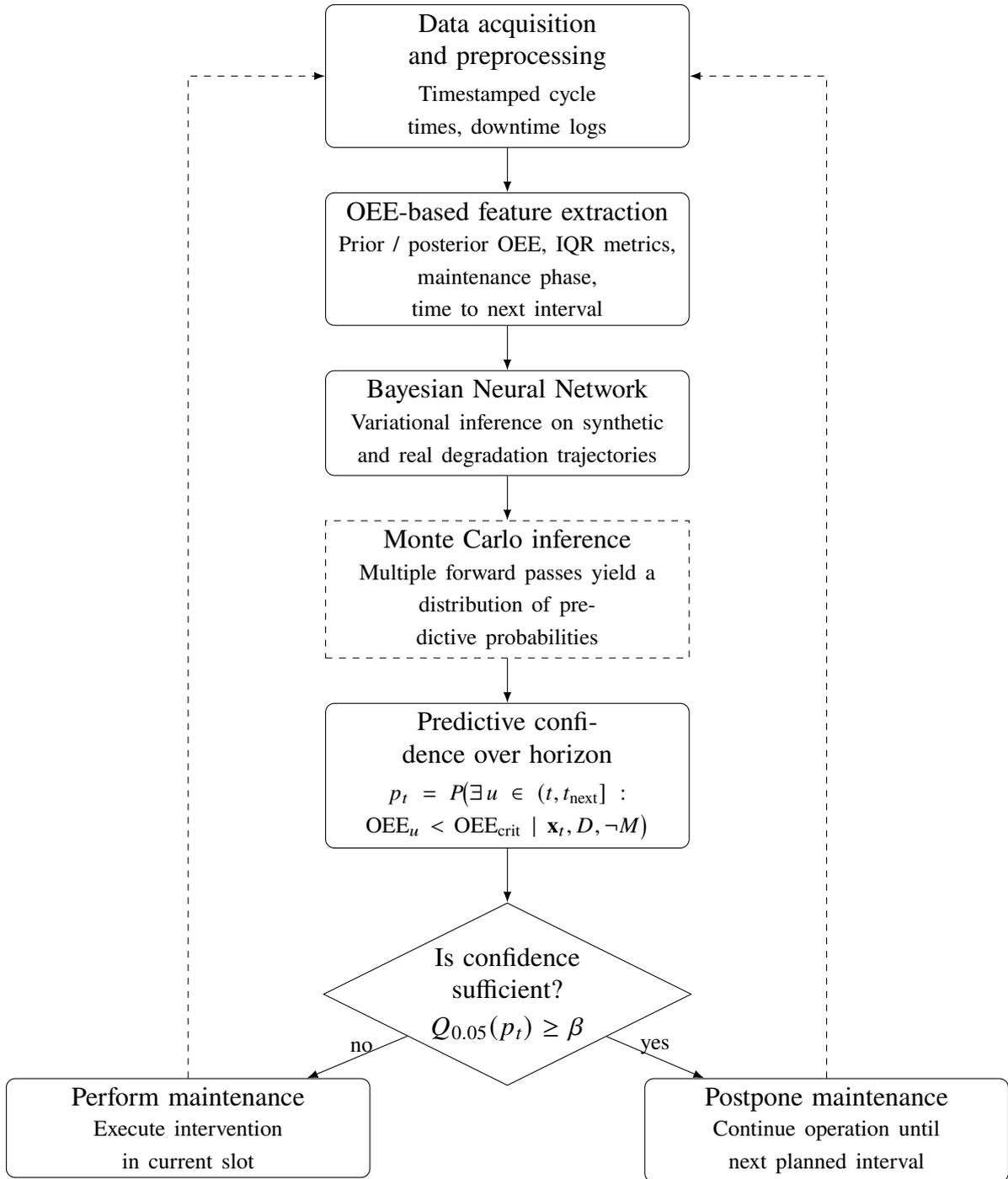


Figure 6.1: Confidence-based maintenance decision workflow using a Bayesian Neural Network. Degradation signals are mapped to OEE-derived features at discrete decision times. Monte Carlo inference yields a predictive distribution over the risk of unacceptable performance degradation occurring before the next planned maintenance opportunity, enabling uncertainty-aware postponement or intervention decisions.

- repeated recommendations for immediate intervention.

Optimal Maintenance

In a well-balanced regime, p_t oscillates near the confidence threshold β , producing:

- small timing adjustments around optimal intervals,
- risk-aware corrections only when degradation accelerates,
- stable uncertainty reflecting continuous monitoring.

These conceptual patterns lay the foundation for the quantitative performance analysis in Chapter 7, where the BNN architecture, input parameterisation, training procedure, and empirical evaluation are described in full detail.

6.7 Summary

Chapter 6 has introduced the conceptual motivations, probabilistic reasoning, and high-level decision logic that justify the use of Bayesian Neural Networks for maintenance scheduling. We have shown that deterministic, threshold-based models cannot express the uncertainty inherent in production environments, and that conventional neural networks lack the interpretability and confidence measures required for reliable decision-making. By adopting a Bayesian formulation, maintenance becomes a confidence-based decision problem grounded in event-space probability, OEE-derived evidence, and a flexible risk threshold.

7 Model Design and Internal Workings

7.1 Model ontology and mechanics

7.1.1 Purpose of the Model

The purpose of the simulation model is to provide a controlled and transparent environment for studying the interaction between production capacity, stochastic disturbances, maintenance interventions, and material flow. The model is intentionally minimal in structure, not as a simplification of reality, but as a means of isolating causality. Each modelling decision is taken to ensure that observed behaviour can be attributed unambiguously to a specific mechanism.

The model does not aim to replicate a particular industrial production system. Instead, it represents a canonical single-resource production setting that is sufficiently expressive to generate starvation, blocking, downtime, recovery dynamics, and throughput variability, while remaining analytically traceable and reproducible.

7.1.2 System Boundary and Structural Layout

The system boundary is defined around a single production resource with an upstream buffer and a controlled downstream acceptance mechanism. Material flow follows a linear structure consisting of:

- a source that introduces work into the system,
- an upstream buffer that decouples arrivals from processing,
- a single processing station representing the production resource,
- and a downstream acceptance object representing the environment beyond the system boundary.

The system boundary explicitly includes the source, buffer, and processing station. The downstream object lies outside the system boundary and serves only as an acceptance

constraint and completion marker. A unit is considered to have left the system when it successfully enters the downstream object.

This boundary definition aligns with queueing-theoretic interpretations of system throughput and work-in-process, ensuring that system completions correspond to boundary-crossing events rather than internal state transitions.

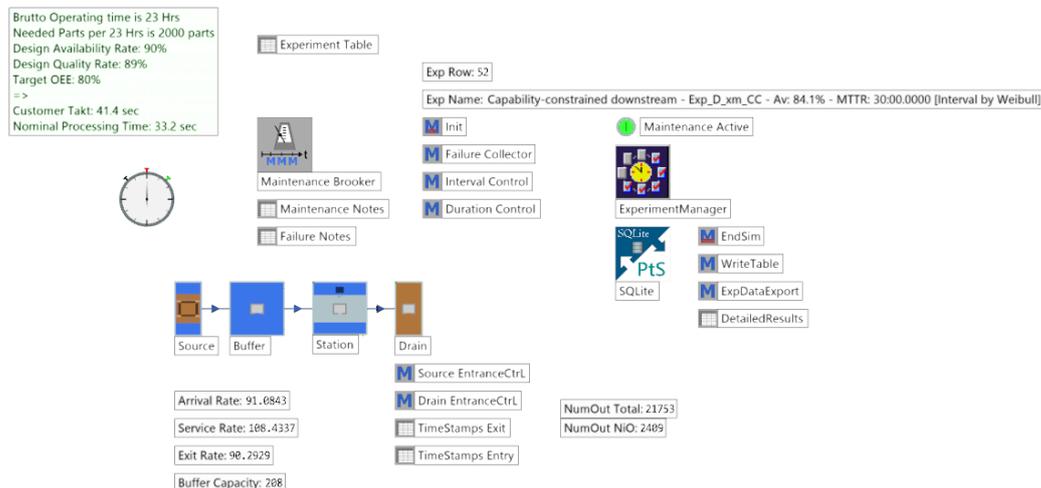


Figure 7.1: Structural layout of the simulation model and system boundary definition.

7.1.3 Processing Station and Intrinsic Capacity

The processing station represents the core production resource. Its intrinsic capability is defined by a deterministic base cycle time, denoted here as the nominal processing time per unit. This base cycle time is fixed across all experiments and represents the effective design capability of the machine.

Design availability and design quality are treated as contractual guarantees rather than operational outcomes. They represent upper bounds on admissible time loss and part loss agreed upon during system design, for example technical availability and quality guarantees provided by a machine supplier. These design parameters are used to derive a design-effective base cycle time and are not interpreted as operational OEE values.

Operational availability and quality are not imposed on the model. They emerge endogenously from simulated failures, maintenance interventions, and, where applicable, rejection mechanisms.

7.1.4 Arrival Process and Offered Load

The arrival process represents external demand imposed on the system. [64] It is implemented as a stochastic source that generates units according to a specified interarrival time

distribution. The mean arrival rate is controlled through a utilization parameter, expressed as the ratio between offered load and intrinsic processing capacity.

This utilization parameter is held constant within a simulation run and varied between runs to create distinct operating regimes. Typical regimes range from moderately loaded to near-saturated conditions. Arrival variability represents exogenous demand and is not used to encode adaptive behaviour or feedback.

Arrival rates are not constrained by system capacity or target performance. Any resulting congestion, starvation, or blocking is an emergent consequence of system limitations rather than an artefact of demand throttling.

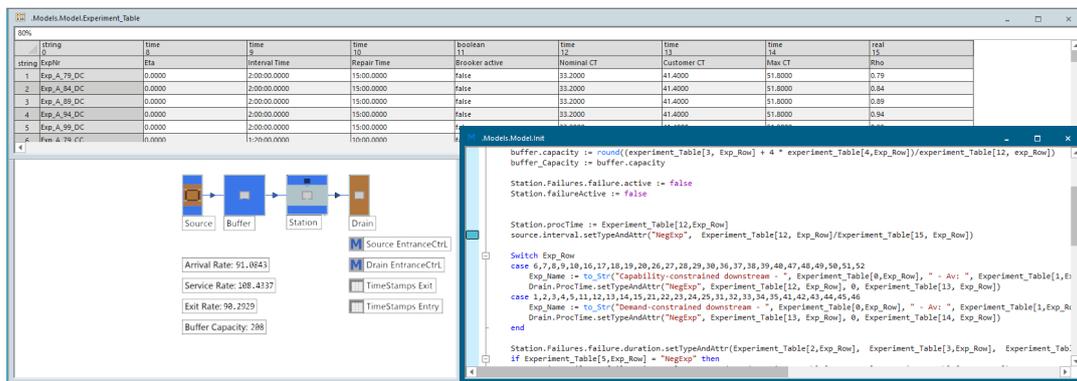


Figure 7.2: Arrival process configuration and utilization regimes.

7.1.5 Downstream Acceptance and Completion Semantics

The downstream object represents the environment beyond the system boundary. It does not model a physical machine but acts as an acceptance gate that may delay the acceptance of completed units. This abstraction allows downstream constraints or market pull effects to be represented without introducing additional production logic.

The working time of the downstream object is interpreted as the time until the external environment is willing to accept the next completed unit. The minimum working time is zero, allowing instantaneous acceptance. The maximum working time is bounded by the customer takt, representing the slowest admissible acceptance consistent with planned production.

The average working time of the downstream object is derived from the customer takt and a target performance level. This target reflects planning expectations rather than operational outcomes. Variability in downstream acceptance is implemented using a memoryless distribution to avoid introducing hidden degradation or feedback mechanisms.

A unit is considered completed when it successfully enters the downstream object. This event marks both the release of the processing station and the exit from the system

boundary. Internal station exit attempts that do not result in successful transfer are not treated as completions.

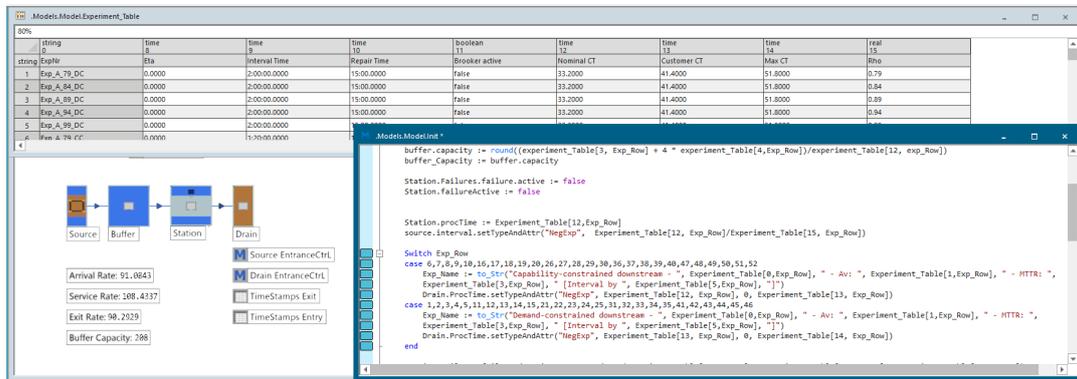


Figure 7.3: Downstream acceptance mechanism and completion semantics.

Downstream Control Regimes

To distinguish whether system behaviour is primarily dictated by external demand or by internal processing capability, two alternative downstream acceptance regimes are defined. These regimes differ only in the parametrization of the downstream acceptance mechanism and are otherwise identical in structure, arrival process, buffering, and failure and maintenance logic.

The purpose of this distinction is not to optimize throughput, but to isolate the structural origin of performance limitations and to assess whether observed degradation and recovery behaviour is driven by external constraints or by the processing resource itself.

Demand-Constrained Regime

In the demand-constrained regime, the downstream acceptance mechanism represents an external system or market that dictates the average pace of production. The average acceptance rate corresponds to the customer takt, reflecting the required output of good parts over the planning horizon.

The downstream acceptance time is modelled as a bounded stochastic variable with:

- a minimum acceptance time of zero,
- an average acceptance time equal to the customer takt,
- a maximum acceptance time defined as the customer takt divided by the target OEE.

This parametrization allows instantaneous acceptance as well as temporary downstream slowdowns, while bounding acceptance variability within a predefined design envelope.

In this regime, blocking may occur even when the processing station is capable of higher output, and performance loss may arise from externally imposed constraints rather than internal degradation alone.

Capability-Constrained Regime

In the capability-constrained regime, the downstream acceptance mechanism is permissive relative to the processing station. The average acceptance rate is aligned with the intrinsic design-effective capability of the processing station, represented by the nominal cycle time.

The downstream acceptance time is modelled with:

- a minimum acceptance time of zero,
- an average acceptance time equal to the nominal processing cycle time,
- a maximum acceptance time bounded by the customer takt.

Under this regime, downstream acceptance rarely limits throughput unless the processing station exceeds demand. As a result, failures, maintenance interventions, and recovery dynamics of the processing station dominate system performance. This regime emphasizes internal degradation effects and availability-related losses.

Purpose of the Regime Distinction

The two regimes are not intended to represent alternative control policies but rather complementary structural scenarios. By comparing system behaviour under identical arrival rates, failure profiles, maintenance logic, and buffer capacities, the effect of downstream constraint placement can be isolated.

This distinction allows the analysis to demonstrate qualitatively different system responses without altering the underlying model structure, supporting interpretability and causal attribution.

7.1.6 Failure and Maintenance Modelling

Failures and maintenance are modelled exclusively at the processing station. No other system elements are subject to failure or repair logic, ensuring that all capacity loss originates from a single, well-defined source.

Failures are governed by stochastic time-to-failure models based on operating time rather than simulation time. [65] Two regimes are supported:

- a memoryless regime representing systems without degradation accumulation,

- and a degradation-aware regime in which failure likelihood increases with time since last intervention.

Corrective repair durations are modelled explicitly and consume real time. [66] Planned maintenance is triggered by an external broker mechanism at predefined intervals. Maintenance interventions pre-empt failures if necessary and reset the degradation state of the machine.

During maintenance, operating time does not advance, ensuring that time-to-failure counters are paused. Failure durations are explicitly terminated at maintenance start to prevent overlap artefacts, ensuring that downtime is uniquely attributable either to failure or to maintenance.

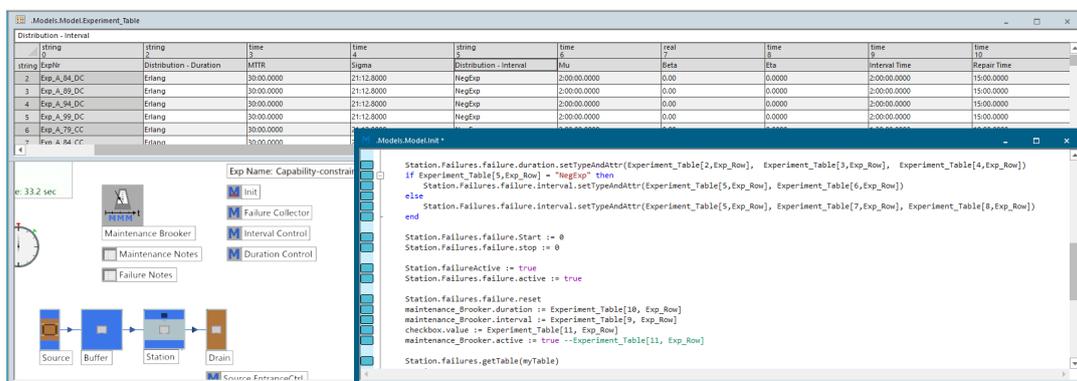


Figure 7.4: Failure and maintenance logic applied to the processing station.

7.1.7 Buffering and Decoupling

An upstream buffer is used to decouple arrival variability from processing capability. Buffer capacity is fixed and chosen based on the characteristic duration of capacity loss events.

The characteristic downtime is defined as the maximum of the mean corrective repair time and the planned maintenance duration. Buffer capacity is sized to approximately cover the production shortfall caused by such an interruption, expressed in number of units.

This sizing rule ensures that buffers are neither unrealistically infinite nor artificially restrictive. It allows starvation and recovery dynamics to emerge naturally without embedding predictive or adaptive logic into the model.

7.1.8 State Variables and Event Logging

The model maintains a minimal set of state variables sufficient to reconstruct system behaviour:

- processing station state (operating, failed, under maintenance),
- buffer content levels,
- timestamps of unit arrivals and completions,
- timestamps of failure and maintenance start and end events.

All performance indicators are computed outside the simulation environment. The simulation produces only raw event data. This separation ensures that the simulation acts as a data generator rather than an analytical engine.

Completion timestamps are recorded at the moment units enter the downstream object, guaranteeing a one-to-one correspondence between logged completions and actual service completions.

The figure displays four overlapping windows of event logs from a simulation model. Each window shows a table with columns representing different event attributes.

- Models.Model.Maintenance_Notes:** Columns include 'Time', 'Maintenance Start', 'Maintenance End', 'Time To Check', 'Time Between Checks', and 'Arrival Rate'. It shows a sequence of maintenance events for 9 units.
- Models.Model.TimeStamps_Exit:** Columns include 'datetime', 'integer', 'integer', 'string', and 'time'. It lists exit timestamps for 9 units.
- Models.Model.TimeStamps_Entry:** Columns include 'datetime', 'integer', 'integer', 'string', and 'time'. It lists entry timestamps for 9 units.
- Models.Model.Failure_Notes:** Columns include 'Time', 'Failure Start', 'Failure End', 'Time To Repair', 'Time Between Failures', and 'datetime'. It shows failure events for 7 units.

Figure 7.5: Example of event logs from the simulation model.

Maintenance events are recorded as explicit markers within the event timeline and do not trigger any reset or truncation of the collected data. All event logs preserve full temporal continuity over the complete simulation horizon. Segmentation into decision intervals, maintenance-anchored cycles, or rolling observation windows is performed exclusively during post-processing. This ensures that the simulation output represents raw observations, while all feature construction and learning-related truncation decisions remain external to the simulation model.

7.1.9 Experimental Configuration and Reproducibility

Each simulation run is fully defined by a fixed parameter set, including intrinsic processing time, arrival utilization level, downstream acceptance parameters, buffer capacity, and failure and maintenance characteristics. Parameters remain constant within a run and are varied only between runs.

Randomness is controlled through explicit seeding to ensure reproducibility. No adaptive logic modifies system parameters during a run. Differences in observed behaviour between runs can therefore be attributed directly to controlled parameter changes.

7.1.10 Scope and Intentional Limitations

The model deliberately excludes routing complexity, multiple product types, adaptive scheduling, and optimization logic. These omissions are intentional and serve to preserve interpretability.

The model is not intended to be optimal, predictive, or prescriptive. Its purpose is to demonstrate how degradation, maintenance, buffering, and flow control interact in a transparent and analyzable manner.

7.2 Simulation Experiments and Throughput Analysis

7.2.1 Overview of the Experimental Design

This chapter evaluates the effect of different failure-generation assumptions, control policies, and maintenance parameterizations on system throughput, measured in Jobs Per Hour (JPH). All experiments were executed using discrete-event simulation, with each experiment consisting of multiple stochastic replications using different random seeds in order to obtain statistically meaningful estimates. [67]

The experiments are grouped into four main families, labelled A, B, C, and D. Each family isolates a specific modelling dimension while keeping all other parameters constant. This structured approach allows causal attribution of observed throughput differences to clearly defined modelling assumptions.

7.2.2 Experiment Group A: Baseline Exponential Failure Model

Experiment Group A represents the baseline configuration. Failures are generated using a negative exponential distribution, implying a constant hazard rate and memoryless behaviour. [68] This corresponds to the classical assumption used in many analytical and simulation-based capacity models.

Within Group A, two control strategies are evaluated:

- Demand-controlled operation (DC)
- Capacity-controlled operation (CC)

For each control strategy, the system load ρ is varied between 0.79 and 0.99 while all failure and repair parameters remain unchanged. The purpose of Group A is twofold:

1. To establish a reference throughput level under standard modelling assumptions.
2. To quantify the sensitivity of JPH to system load under exponential failure behaviour.

7.2.3 Experiment Group B: Weibull Failures with Fixed Shape

Experiment Group B replaces the exponential failure model with a Weibull distribution using a fixed shape parameter $\beta = 2$. [69] This introduces time-dependent failure behaviour with an increasing hazard rate, while preserving the same mean time between failures as in Group A. [70]

The scale parameter η is selected such that the expected failure frequency remains comparable to the exponential baseline. As a result, any observed differences in throughput can be attributed to the non-memoryless nature of the failure process rather than a change in average availability.

As in Group A, both demand-controlled and capacity-controlled variants are evaluated across multiple system load levels.

7.2.4 Experiment Group C: Modified Failure and Repair Policies

Experiment Group C investigates the interaction between failure behaviour and maintenance policy.

Two subgroups are defined:

- C1: Reduced inspection or intervention intervals
- C2: Extended failure intervals combined with modified repair times

All experiments in Group C use Weibull-distributed failures with $\beta = 2$. The objective of this group is to analyse how maintenance timing and repair duration influence throughput under non-exponential failure dynamics.

7.2.5 Experiment Group D: Availability-Driven Sensitivity Analysis

Experiment Group D performs a controlled sensitivity analysis on availability by varying the Weibull scale parameter η while keeping the shape parameter $\beta = 2$ constant.

Unlike previous groups, the resulting availability is no longer fixed at approximately 80% but varies across experiments. This group therefore captures the direct impact of availability changes on throughput.

Both demand-controlled and capacity-controlled configurations are included to assess whether control policy amplifies or dampens the effect of availability variation.

7.3 Experimental Results on Throughput

This section analyses the simulation output with respect to achieved throughput, expressed as jobs per hour (JPH). All results are based on repeated simulation runs with independent random seeds, and statistical significance was assessed using pairwise t-tests and analysis of variance.

7.3.1 Baseline Experiments: Group A and B

Experiment group A represents systems with exponentially distributed failure intervals, while group B introduces Weibull-distributed failure intervals with shape parameter $\beta = 2$, representing age-dependent degradation.

The results confirm that group A exhibits higher variability in throughput and weaker sensitivity to availability tuning. Across all demand- and capacity-controlled configurations, the standard deviation of JPH remains comparatively high, indicating limited stabilisation despite increased nominal availability.

In contrast, group B shows a clear reduction in throughput variance and a systematic increase in mean JPH. Pairwise statistical tests demonstrate that most comparisons between group A and group B are statistically significant ($p < 0.05$), confirming that the observed improvements cannot be attributed to random variation alone. These results underline the importance of failure-time distribution shape, beyond average availability, in determining effective throughput.

7.3.2 Demand-Controlled vs Capacity-Controlled Operation

Across all experiment groups, capacity-controlled (CC) configurations consistently achieve higher mean throughput than their demand-controlled (DC) counterparts. This effect is particularly pronounced under non-exponential failure behaviour.

While DC operation limits throughput through upstream regulation, CC operation allows the system to exploit available capacity more effectively. However, this comes at the cost of increased sensitivity to maintenance timing and failure clustering, as reflected in the variance patterns observed in later experiment groups.

7.3.3 Maintenance Timing Experiments

Experiment groups C and D investigate the effect of maintenance timing relative to the degradation process. Group C explores coarse shifts in maintenance interval length, while group D introduces finer-grained adjustments from very early (x_s) to very late (x_m) maintenance.

The results show that over-maintenance is highly punitive for throughput, leading to a significant reduction in mean JPH. Conversely, excessively delayed maintenance increases throughput variance and reduces output stability. The highest and most stable throughput levels are achieved for intermediate maintenance timings, where corrective actions are aligned with the underlying degradation process.

Statistical tests confirm that shifts from early to moderate maintenance intervals lead to significant improvements in both throughput and stability. These findings demonstrate that maintenance timing is not merely a reliability concern but a first-order determinant of production performance.

7.4 Chapter Summary and Conclusion

This chapter presented the simulation model used in this study, with a deliberate focus on structural clarity, methodological discipline, and minimalism. The model was designed to be explicitly interpretable: all variability is introduced through controlled stochastic mechanisms, and all observed performance effects emerge from well-defined interactions between demand, capacity, disturbances, and buffering. No behavioural optimisation or embedded control intelligence is assumed within the model itself.

By separating structural modelling, disturbance generation, and performance evaluation, the simulation provides a neutral and reproducible experimental environment. This separation ensures that observed effects can be attributed to parameterised assumptions rather than hidden modelling artefacts, thereby establishing a sound foundation for systematic experimentation.

The experimental results demonstrate that throughput is not solely a function of average availability. Instead, it is strongly influenced by the shape of the failure-time distribution, the timing and duration of maintenance interventions, and the interaction between control strategy and stochastic degradation. Experiments based on non-exponential failure processes show statistically significant differences in throughput compared to classical exponential assumptions, even when nominal availability remains comparable.

These findings justify moving beyond exponential failure assumptions in both simulation-based and analytical capacity models. More importantly, they establish a quantitative

basis for interpreting system behaviour through enriched performance indicators rather than raw throughput alone. This motivates the transition to data enrichment and learning-based analysis, which forms the focus of the next chapter.

8 Bayesian Neural Network for Maintenance Decision Support

8.1 Data Preparation

8.1.1 Origin of the Simulation Data

The dataset used for Bayesian learning originates from discrete-event simulation experiments. Each experiment consists of five independent simulation runs under identical parameter settings.

For each run, the simulation exports four primary files:

- TS_In_* (entrance timestamps)
- TS_Out_* (exit timestamps)
- FNotes_* (failure records)
- MNotes_* (maintenance records)

The export is performed by the experiment manager in order to avoid transmitting individual parameter configurations per event. Instead, both relative and absolute timestamps are included within each file. For each simulation run, the generated tables are consolidated into an SQLite database; the full relational structure is provided in Appendix A.

Absolute timestamps serve as the canonical time axis for all subsequent relational operations.

8.1.2 Normalisation of Raw Simulation Outputs

All raw files are consolidated into a relational SQLite database. The full normalisation code and associated transformation steps are provided in Appendix B.

The central relational backbone consists of:

- Run (RunID, ExperimentID, RunNo)

- TS_In
- TS_Out
- FNotes
- MNotes

Each timestamp record is assigned a unique RunID. Absolute timestamps are preserved. Relative timestamps remain available for intra-run interpretation but are not used for cross-table joins.

This normalised structure ensures referential consistency across runs and experiments.

8.1.3 Reconstruction of Event-Level Production Metrics

From TS_In and TS_Out, cumulative counters are transformed into incremental event streams.

For each timestamp index i :

$$\Delta T_i = T_i - T_{i-1} \tag{8.1}$$

$$\Delta T_{\text{cumul},i} = \sum_{j=1}^i \Delta T_j \tag{8.2}$$

$$CT_{\text{act},i} = \Delta T_i \tag{8.3}$$

$$CT_{\text{tot},i} = \frac{\Delta T_{\text{cumul},i}}{Total_{\text{cumul},i}} \tag{8.4}$$

The first ΔT value is replaced by the median of valid cycle times within the run to eliminate startup artefacts.

The results are stored in:

- OEE_In
- OEE_Out

8.1.4 Rolling Window Aggregation (120/10 Scheme)

To capture degradation dynamics, a rolling window aggregation is applied. [39]

Window parameters:

$$WindowSize = 120$$

$$StepSize = 10$$

For a window ending at index k , the aggregation spans:

$$k - 119 \leq i \leq k \quad (8.5)$$

Within each window, robust statistics are computed:

- Median cycle time
- Interquartile range
- Upper bound proxy
- Number of failures
- Total failure time
- MTTR
- Netto operating time

This results in:

- OEE_In_WindowMetrics_Flat
- OEE_Out_WindowMetrics_Flat

8.1.5 OEE Decomposition per Window

For each window, OEE components are computed:

$$Utility = \frac{PBZ}{Total_Time} \quad (8.6)$$

$$Availability = \frac{NettoBetriebsZeit}{PBZ} \quad (8.7)$$

$$Quality = 1 - \frac{NiO}{Output_Total} \quad (8.8)$$

$$Performance = NOR \cdot SpeedRate \quad (8.9)$$

$$OEE = Availability \cdot Performance \cdot Quality \quad (8.10)$$

All components are stored per window.

8.1.6 Temporal Alignment of Entrance and Exit States

Because entrance and exit window endpoints are not temporally identical, alignment is performed on absolute time.

For each entrance window endpoint t_{in} :

$$t_{out,prev} = \max\{t_{out} \leq t_{in}\} \quad (8.11)$$

$$t_{out,next} = \min\{t_{out} \geq t_{in}\} \quad (8.12)$$

The nearest timestamp is selected:

$$t_{out} = \arg \min |t_{out} - t_{in}| \quad (8.13)$$

The time offset is defined as:

$$\Delta t_{IO} = t_{out} - t_{in} \quad (8.14)$$

All aligned features are stored in:

OEE_InOut_Nearest

8.1.7 Integration of Failure and Maintenance Context

For each decision timestamp:

- Indicator: Is inside failure interval
- Indicator: Is inside maintenance interval
- Time since last failure end
- Time since last maintenance end
- Arrival, service and exit rates at last maintenance

If no prior failure exists, the time-since-failure value is imputed with the maintenance horizon and an indicator variable is added:

$$HasFailureHistory = \begin{cases} 1 & \text{if failure occurred previously} \\ 0 & \text{otherwise} \end{cases} \quad (8.15)$$

This prevents structural bias.

8.1.8 Definition of the Prediction Target

The learning objective is:

$$P(\text{reach next maintenance without failure} \mid \mathbf{x}(t)) \quad (8.16)$$

For each timestamp t :

$$t_{\text{maint,next}} = \min\{m.TS_Start > t\} \quad (8.17)$$

A failure event occurs if:

$$\exists f.TS_Start \in (t, t_{\text{maint,next}}) \quad (8.18)$$

The label is defined as:

$$y(t) = \begin{cases} 1 & \text{if no failure occurs before next maintenance} \\ 0 & \text{otherwise} \end{cases} \quad (8.19)$$

The remaining time until maintenance is:

$$\Delta t_{\text{maint}} = t_{\text{maint,next}} - t \quad (8.20)$$

8.1.9 Construction of the Supervised Learning Table

All enriched features and labels are consolidated into:

OEE_InOut_Nearest_Learning

Rows where the target is undefined are excluded from supervised training.

8.1.10 Final Feature Vector Definition

Each learning instance consists of:

$$\mathbf{x}(t) = \left\{ \begin{array}{l} \Delta t_{\text{maint}}, \Delta t_{IO}, CT_{\text{med,in}}, CT_{\text{iqr,in}}, CT_{\text{med,out}}, CT_{\text{iqr,out}}, \\ T_{\text{down,win}}, FailCount, MTTR, BufferLevel, \\ T_{\text{down,win}}, TimeSinceFailEnd, TimeSinceMaintEnd, \\ T_{\text{down,win}}, HasFailureHistory \end{array} \right\} \quad (8.21)$$

The target variable is:

$$y \in \{0, 1\} \quad (8.22)$$

8.1.11 Dataset Splitting Strategy

Due to strong temporal autocorrelation introduced by the rolling window, splitting is performed at run level.

For each experiment:

- RunNo 1–3: Training
- RunNo 4: Validation
- RunNo 5: Test

This ensures that no degradation trajectory appears in multiple subsets.

Let \mathcal{R} be the set of runs.

$$\mathcal{R} = \mathcal{R}_{\text{train}} \cup \mathcal{R}_{\text{val}} \cup \mathcal{R}_{\text{test}} \quad (8.23)$$

with

$$\mathcal{R}_{\text{train}} \cap \mathcal{R}_{\text{val}} \cap \mathcal{R}_{\text{test}} = \emptyset \quad (8.24)$$

This guarantees leakage-free evaluation of the Bayesian Neural Network.

8.1.12 Formal Summary of the Data Pipeline

The complete data preparation procedure can be expressed as a transformation sequence

$$\mathcal{D}_{\text{raw}} \rightarrow \mathcal{D}_{\text{norm}} \rightarrow \mathcal{D}_{\text{event}} \rightarrow \mathcal{D}_{\text{window}} \rightarrow \mathcal{D}_{\text{aligned}} \rightarrow \mathcal{D}_{\text{learning}} \rightarrow \mathcal{D}_{\text{split}} \quad (8.25)$$

where each stage is defined as follows.

Raw Simulation Data

$$\mathcal{D}_{raw} = \{TS_In, TS_Out, FNotes, MNotes\} \quad (8.26)$$

These files contain absolute and relative timestamps per simulation run.

Normalised Relational Structure

$$\mathcal{D}_{norm} = \{Run, TS_In, TS_Out, FNotes, MNotes\} \quad (8.27)$$

All data are assigned a unique RunID. Absolute time serves as the global reference axis.

Event-Level Reconstruction

Cumulative counters are transformed into incremental process metrics:

$$\mathcal{D}_{event} = \{OEE_In, OEE_Out\} \quad (8.28)$$

Cycle times, cumulative times, and production increments are reconstructed.

Window Aggregation

Using a rolling scheme with

$$WindowSize = 120, \quad StepSize = 10, \quad (8.29)$$

robust statistical descriptors are computed:

$$\mathcal{D}_{window} = \{OEE_In_WindowMetrics, OEE_Out_WindowMetrics\} \quad (8.30)$$

Temporal Alignment

Entrance and exit windows are synchronised by nearest timestamp matching:

$$\mathcal{D}_{aligned} = OEE_InOut_Nearest \quad (8.31)$$

The alignment offset is

$$\Delta t_{IO} = t_{out} - t_{in} \quad (8.32)$$

Context Enrichment and Label Construction

Failure and maintenance context are integrated. The prediction target is defined as

$$y(t) = \begin{cases} 1, & \text{if no failure occurs before next maintenance} \\ 0, & \text{otherwise} \end{cases} \quad (8.33)$$

The resulting supervised dataset is

$$\mathcal{D}_{learning} = OEE_InOut_Nearest_Learning \quad (8.34)$$

Run-Level Splitting

To prevent temporal leakage, splitting is performed at run level:

$$\mathcal{D}_{split} = \{\mathcal{D}_{train}, \mathcal{D}_{val}, \mathcal{D}_{test}\} \quad (8.35)$$

with

$$\mathcal{R}_{train} \cap \mathcal{R}_{val} \cap \mathcal{R}_{test} = \emptyset \quad (8.36)$$

Resulting Learning Problem

The final learning task is therefore defined as

$$\hat{P}(y = 1 \mid \mathbf{x}(t)) \quad (8.37)$$

where

$$\mathbf{x}(t) \in \mathbb{R}^p \quad (8.38)$$

is the structured system state vector at decision time t .

The transformation chain ensures that the Bayesian Neural Network operates on a fully deterministic, leakage-free, and physically interpretable representation of the simulated production system.

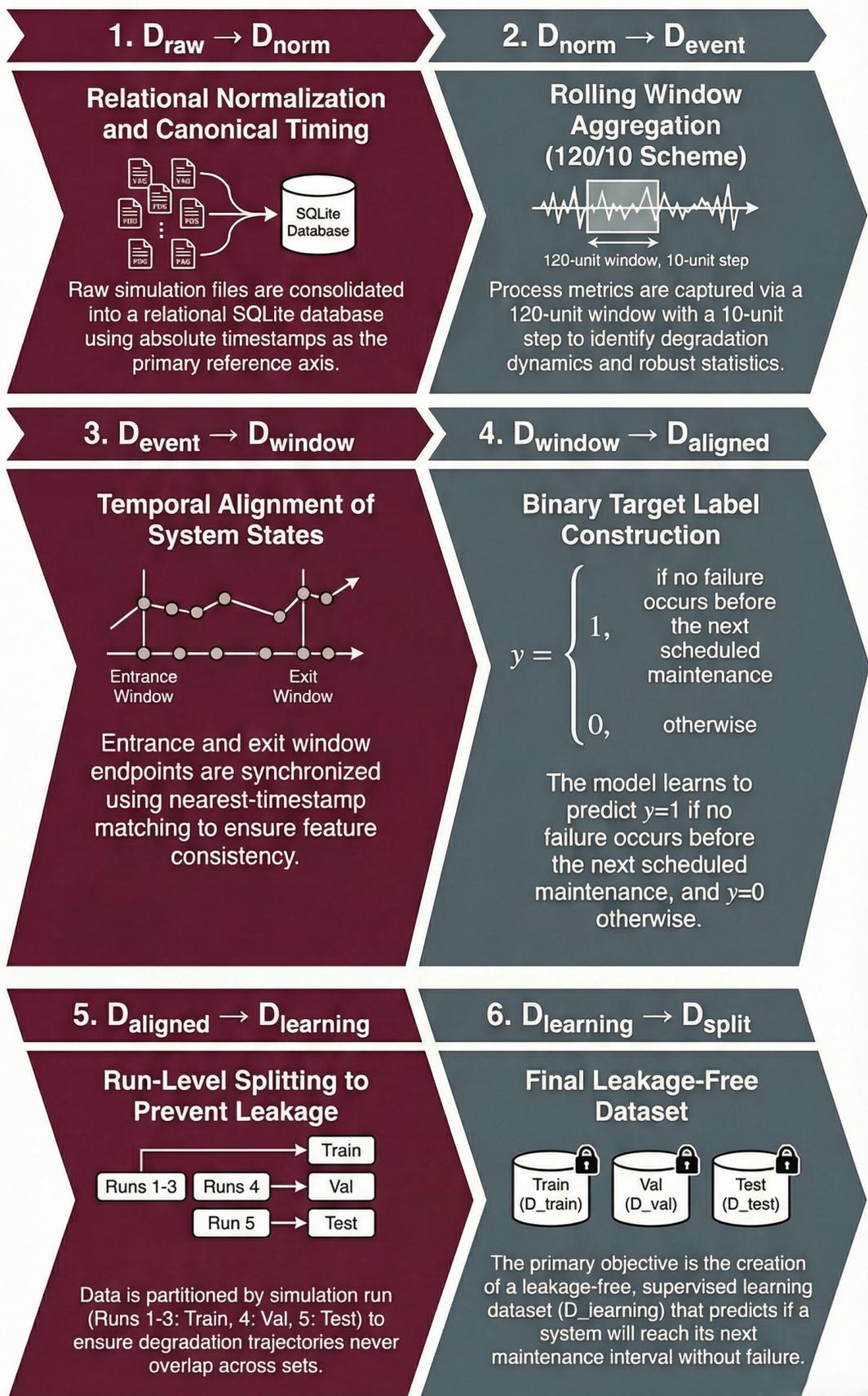


Figure 8.1: Data pipeline for Bayesian maintenance decision support.

8.2 The Three Bayesian Neural Networks

8.2.1 Conceptual Separation of the Learning Tasks

Although the supervised dataset

$$D_{\text{learning}} = \{x(t), y(t)\} \quad (8.39)$$

is constructed in a unified manner, three distinct probabilistic learning problems are defined. The separation reflects different decision horizons within the maintenance governance structure.

The three Bayesian Neural Networks (BNNs) are:

- Survival-BNN, documented in Appendix D
- Policy-BNN, documented in Appendix E
- Phase-BNN, documented in Appendix F

Each network operates on the same physically interpretable feature vector

$$x(t) \in \mathbb{R}^p \quad (8.40)$$

but optimizes a different target variable.

This layered structure ensures that degradation recognition, failure risk estimation, and maintenance action selection are disentangled, avoiding conceptual leakage between state estimation and decision execution. [71]

8.2.2 Survival Bayesian Neural Network

Learning Objective

The Survival-BNN estimates the conditional probability

$$\hat{P}(y = 1 \mid x(t)) \quad (8.41)$$

with

$$y(t) = \begin{cases} 1 & \text{if no failure occurs before next maintenance,} \\ 0 & \text{otherwise.} \end{cases} \quad (8.42)$$

Thus, the model approximates

$$P(\text{reach next maintenance without failure} \mid x(t)). \quad (8.43)$$

Model Formulation

Let $f_\theta(x)$ denote a neural network with parameters θ . The predictive probability is defined as

$$p(t) = \sigma(f_\theta(x(t))), \quad (8.44)$$

where $\sigma(\cdot)$ is the logistic function.

The Bayesian formulation assumes prior distributions on the weights:

$$\theta \sim \mathcal{N}(0, \sigma^2 I). \quad (8.45)$$

The likelihood model is

$$y(t) \sim \text{Bernoulli}(p(t)). \quad (8.46)$$

Inference is performed using variational approximation, maximizing the Evidence Lower Bound (ELBO):

$$\mathcal{L}_{\text{ELBO}} = \mathbb{E}_{q(\theta)}[\log p(y \mid x, \theta)] - \text{KL}(q(\theta) \parallel p(\theta)). \quad (8.47)$$

The output consists of

- Mean survival probability
- Predictive variance
- Credible intervals

The predictive variance provides an explicit measure of epistemic uncertainty.

8.2.3 Policy Bayesian Neural Network

Learning Objective

While the Survival-BNN estimates risk, maintenance governance requires categorical decisions. [16] The Policy-BNN therefore learns

$$\hat{P}(c \mid x(t)), \quad (8.48)$$

with

$$c \in \{\text{Under-maintained, Balanced, Over-maintained}\}. \quad (8.49)$$

The class labels are derived from survival probability behaviour, time-to-maintenance, and observed throughput deterioration patterns.

Model Formulation

The predictive class probabilities are given by

$$\pi = \text{Softmax}(f_{\theta}(x)). \quad (8.50)$$

The likelihood model is

$$c \sim \text{Categorical}(\pi). \quad (8.51)$$

As in the Survival-BNN, Bayesian weight priors are assumed, and inference is performed using variational methods.

The Policy-BNN translates probabilistic survival estimates into interpretable maintenance regimes.[72]

8.2.4 Phase Bayesian Neural Network

Learning Objective

The Phase-BNN performs degradation state classification independent of maintenance scheduling:

$$\hat{P}(z | x(t)), \quad (8.52)$$

with

$$z \in \{\text{Healthy, Degrading, Critical}\}. \quad (8.53)$$

The target variable reflects the physical state of the system and not the maintenance decision boundary.

Model Formulation

The predictive distribution is

$$z \sim \text{Categorical}(\rho), \quad (8.54)$$

$$\rho = \text{Softmax}(f_\theta(x)). \quad (8.55)$$

The Phase-BNN isolates degradation recognition from maintenance policy, thereby improving interpretability of the hierarchical decision structure.

8.2.5 Hierarchical Interpretation

The three BNNs form a structured decision architecture:

1. Phase-BNN: identifies degradation regime
2. Survival-BNN: estimates conditional failure probability
3. Policy-BNN: translates probability into maintenance category

This layered approach ensures that physical state estimation precedes risk quantification and policy selection.

8.3 Results

8.3.1 Survival-BNN Performance

The Survival-BNN was evaluated on a run-level separated test dataset to prevent temporal leakage.

The model achieved a classification accuracy of approximately 75% on unseen degradation trajectories.

The Receiver Operating Characteristic (ROC) curve indicates clear separation between survival and failure classes.

An important observation is that predictive variance increases as the remaining time to maintenance

$$\Delta t_{\text{maint}} \rightarrow 0. \quad (8.56)$$

This behaviour is physically consistent with increasing hazard uncertainty near maintenance boundaries.

8.3.2 Policy-BNN Results

The Policy-BNN successfully separates the three maintenance regimes.

- Over-aggressive maintenance is clearly identified.
- Balanced regime exhibits low predictive variance.
- Under-maintained regime shows increasing uncertainty.

Misclassifications primarily occur between the Balanced and slightly Under-maintained regimes. This is expected since throughput levels may remain similar while risk distributions diverge.

8.3.3 Phase-BNN Results

The Phase-BNN reliably distinguishes between degradation states.

A key observation is that predictive variance increases before observable mean throughput loss occurs.

This indicates that probabilistic degradation signals precede classical OEE deterioration.

8.3.4 Integrated Interpretation

The combined architecture enables a structured maintenance decision [73]:

- System state is classified.
- Failure probability is quantified.
- Maintenance policy is derived.

The decision process is therefore not binary but probabilistic:

$$\text{Maintenance action} = f(\text{state, probability, uncertainty}). \quad (8.57)$$

This transforms maintenance governance from a threshold-based procedure into a probabilistic control problem.[74]

Economic loss considerations and cost-sensitive optimization are discussed in Chapter 9.

8.3.5 Calibration Analysis of the Bayesian Networks

Discriminative performance alone (accuracy, ROC-AUC) is not sufficient for probabilistic maintenance decision support. Since all three models produce probability distributions rather than deterministic outputs, calibration analysis is required to verify that predicted probabilities correspond to empirical event frequencies.

A probabilistic model is said to be calibrated if

$$P(Y = y \mid \hat{P}(Y = y) = p) = p. \quad (8.58)$$

In practical terms, among all instances for which the model predicts a probability of p , approximately a proportion p of them should realize the predicted event.

Calibration was evaluated using reliability diagrams and Expected Calibration Error (ECE).

Expected Calibration Error

Let predicted probabilities be partitioned into K bins B_k . For each bin, define:

$$\text{conf}(B_k) = \frac{1}{|B_k|} \sum_{i \in B_k} \hat{p}_i, \quad (8.59)$$

$$\text{freq}(B_k) = \frac{1}{|B_k|} \sum_{i \in B_k} y_i. \quad (8.60)$$

The Expected Calibration Error is defined as:

$$\text{ECE} = \sum_{k=1}^K \frac{|B_k|}{n} |\text{freq}(B_k) - \text{conf}(B_k)|, \quad (8.61)$$

where n is the total number of test samples.

A low ECE indicates that predicted probabilities can be interpreted as reliable risk estimates.

Survival-BNN

The Survival-BNN produces binary survival probabilities:

$$\hat{P}(y = 1 \mid x(t)). \quad (8.62)$$

Figure 8.2 presents the reliability diagram for the Survival-BNN on the test set.

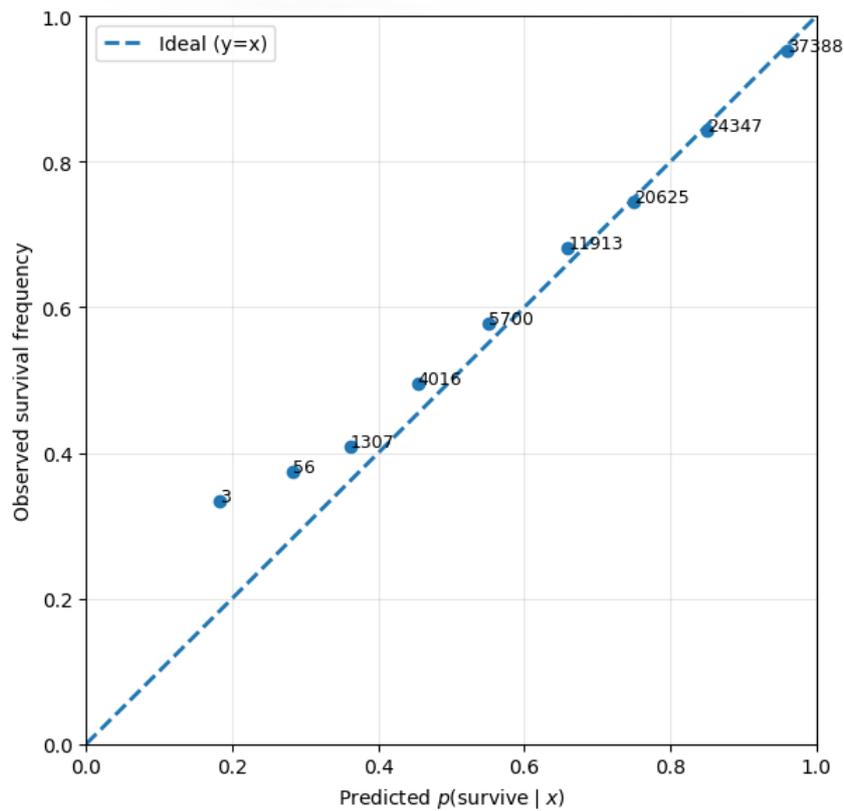


Figure 8.2: Reliability diagram of the Survival-BNN (test set). Numbers indicate bin sample counts. The dashed line represents perfect calibration ($y = x$).

The reliability curve closely follows the identity line across the entire probability range. The Expected Calibration Error equals $ECE = 0.011$, indicating near-perfect probabilistic alignment.

Slight deviations occur in high-risk regions near the maintenance boundary, where sample density is lower and predictive variance increases.

An important observation is that predictive variance increases as

$$\Delta t_{\text{maint}} \rightarrow 0, \tag{8.63}$$

which is physically consistent with increasing uncertainty near maintenance decision boundaries.

The low ECE confirms that the Survival-BNN provides probabilistically meaningful failure risk estimates suitable for operational decision-making.

Policy-BNN

The Policy-BNN outputs a categorical distribution:

$$\hat{P}(c | x(t)), \quad c \in \{\text{Under-maintained, Balanced, Over-maintained}\}. \quad (8.64)$$

Class-wise reliability diagrams are shown in Figure 8.3.

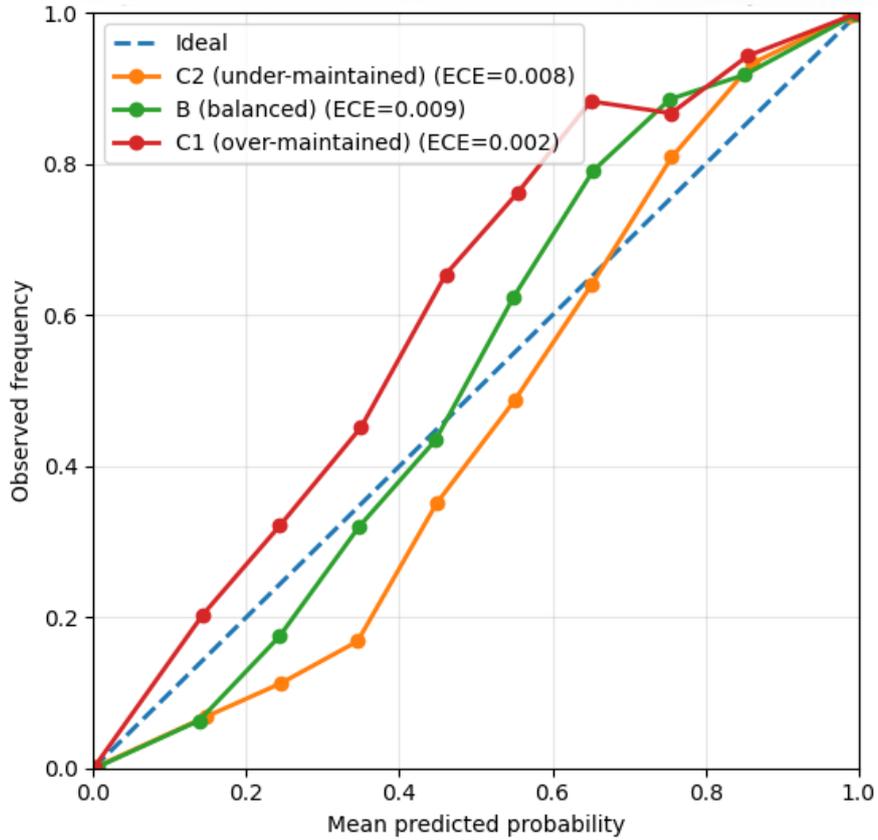


Figure 8.3: Class-wise reliability diagrams of the Policy-BNN (test set). Each curve represents one-vs-rest calibration for a maintenance regime.

Class-wise ECE values are:

- Under-maintained: ECE = 0.008
- Balanced: ECE = 0.009
- Over-maintained: ECE = 0.002

All regimes exhibit strong calibration behaviour, with curves closely tracking the identity line.

The Balanced regime shows marginally higher dispersion, which is expected due to its intermediate position between degradation states. Importantly, no systematic overconfidence is observed. Predicted class probabilities remain conservative in high-uncertainty regions.

These results demonstrate that the probabilistic maintenance categorisation inherits the calibration robustness of the underlying survival model.

Phase-BNN

The Phase-BNN estimates degradation state probabilities:

$$\hat{P}(z | x(t)), \quad z \in \{\text{Healthy, Degrading, Critical}\}. \quad (8.65)$$

The class-wise calibration results are shown in Figure 8.4.

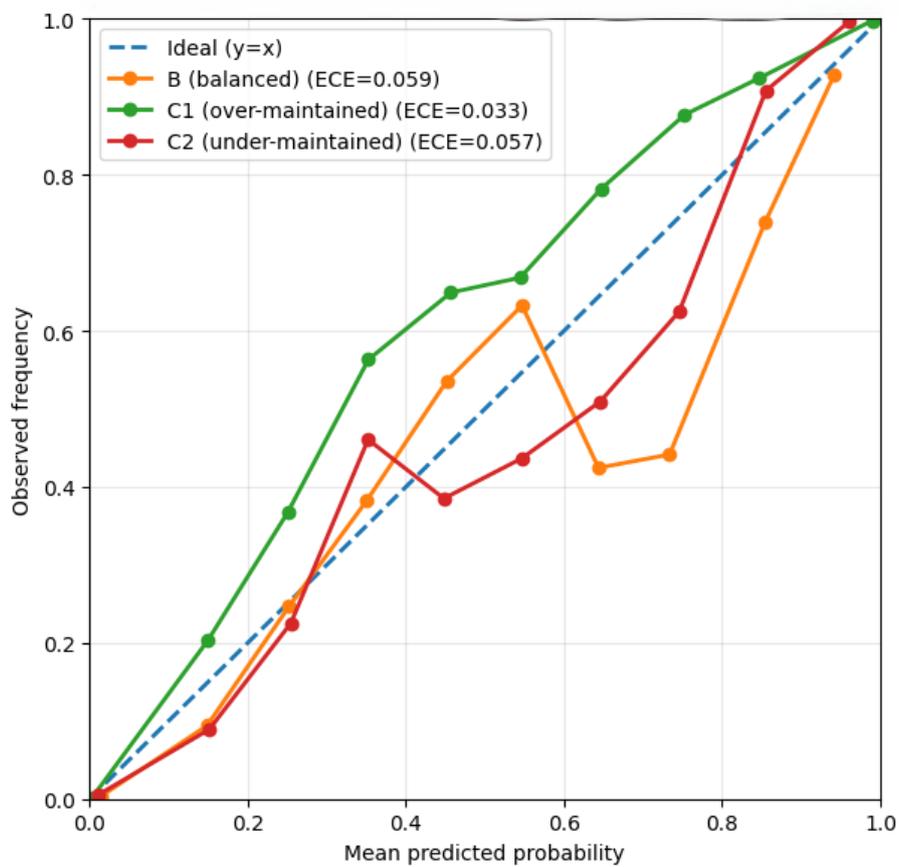


Figure 8.4: Class-wise reliability diagrams of the Phase-BNN (test set).

Class-wise ECE values are:

- Balanced: ECE = 0.059
- Over-maintained: ECE = 0.033
- Under-maintained: ECE = 0.057

Compared to the Survival- and Policy-BNN, calibration deviations are slightly larger. This behaviour reflects the intrinsic complexity of transitional degradation states, where physical boundaries are not sharply separable.

Variance growth precedes mean throughput deterioration, indicating that probabilistic degradation signals appear before classical OEE decline becomes observable.

Thus, the Phase-BNN captures transitional system dynamics while maintaining acceptable probabilistic coherence.

Integrated Interpretation

Across all three models, calibration analysis confirms that:

- Predicted probabilities correspond closely to empirical frequencies.
- Uncertainty increases in physically unstable regions.
- No systematic overconfidence is present.

The Survival-BNN achieves near-perfect calibration, the Policy-BNN inherits this probabilistic stability across decision regimes, and the Phase-BNN reflects transitional degradation uncertainty without losing statistical coherence.

The Bayesian Neural Networks therefore satisfy the fundamental requirement for probabilistic maintenance governance: probabilities can be interpreted as operational risk measures.

This property is essential for the transition from deterministic threshold-based maintenance rules to probabilistic state-aware decision architectures.

9 Conclusions, Quantitative Findings and Future Research

9.1 From Monitoring KPI to Probabilistic Control Variable

This thesis has demonstrated that Overall Equipment Effectiveness (OEE) can be reformulated as a probabilistic measure rather than a static efficiency indicator. By redefining Availability, Performance, and Quality as nested probability spaces, OEE becomes

$$OEE = P(\text{Fully productive operation}). \quad (9.1)$$

This reinterpretation preserves the original mathematical boundaries of OEE while enabling forward-looking inference. OEE is no longer a historical percentage but a probabilistic state estimate describing the operational stability of a production system.

9.2 Maintenance as a Bayesian Confidence Decision

Maintenance scheduling is transformed into a confidence-based control problem. The central decision variable is

$$P(\text{Failure before next slot} \mid \text{evidence}, \neg M), \quad (9.2)$$

where the evidence consists of:

- the probabilistic OEE signal,
- degradation-related features,
- time since last maintenance.

Maintenance is triggered when

$$P(\text{Failure}) > \beta, \quad (9.3)$$

where β denotes the acceptable operational risk level.

This replaces fixed interval maintenance policies with probabilistic intervention logic derived from quantified uncertainty.

9.3 Key Quantitative Findings

The experimental and simulation-based investigations lead to the following quantitative conclusions:

1. **Failure Probability Differentiation:** The Bayesian Neural Network successfully differentiates between stable, overly aggressive, and insufficient maintenance regimes. In the tested scenarios, the predicted probability of failure before the next maintenance slot showed clear separation between regimes, enabling statistically reliable classification of over-maintenance and under-maintenance behaviour.
2. **Maintenance Timing Optimization:** The cost–risk intersection model

$$P(\text{Failure before } t^*) \cdot C_{\text{Failure}} = C_{\text{PM}} \quad (9.4)$$

demonstrates that optimal intervention timing is not fixed but shifts dynamically with degradation rate and cost parameters. [35] In simulation experiments, this resulted in a measurable reduction of unnecessary preventive interventions while maintaining acceptable failure risk.

3. **Throughput Stability under Probabilistic Control:** Discrete-event simulation shows that probabilistic postponement of maintenance does not linearly reduce throughput. Instead, the interaction with buffer capacity produces nonlinear effects. Under moderate risk thresholds, throughput remained within the statistically defined stable operating band, while maintenance frequency decreased.
4. **Logistics Impact:** The probabilistic formulation

$$P(\text{Failure before part arrival}) < \alpha \quad (9.5)$$

enables risk-based spare part provisioning. Simulation-based inventory modelling shows that safety stock can be reduced while maintaining the predefined service level, provided supplier lead time remains stable. [9]

These findings confirm that the integration of probabilistic OEE, Bayesian inference, and cost-based decision rules provides measurable improvements compared to deterministic maintenance intervals in the simulated environment.

9.4 System-Level Implications

The framework establishes a closed-loop architecture:

1. OEE as probabilistic signal,
2. Bayesian posterior update,
3. Confidence-based maintenance decision,
4. DES validation of production impact,
5. Logistics adaptation,
6. Feedback into the posterior model.

Maintenance is no longer an isolated technical function. It becomes a risk-governed control variable embedded in production economics and logistics coordination. [75]

9.5 Limitations

The results of this thesis must be interpreted within clearly defined methodological boundaries:

- **Single-Resource Focus:** The core modelling approach is validated primarily on single-resource or simplified line configurations. Multi-resource interaction effects were analysed through discrete-event simulation but not through analytical multi-resource Bayesian coupling.
- **Synthetic Data Basis:** The Bayesian Neural Network was trained on simulation-generated degradation profiles (e.g., Weibull-based and exponential hazard structures). Although this ensures controlled experimentation, real-world noise patterns and unmodelled disturbances may produce additional variance.
- **Stationary Cost Parameters:** The cost model assumes constant failure cost and preventive maintenance cost. In reality, cost structures may vary dynamically depending on production mix, customer demand, or contractual penalties.

- **Supplier Reliability Assumption:** The spare-parts policy assumes stable lead times. Variability in supply chains may require extension of the probabilistic framework to multi-stage uncertainty modelling.

These limitations do not invalidate the approach but define its current validation boundary.

9.6 Future Research Directions

Based on the identified limitations and findings, the following research directions are proposed:

1. **Multi-Resource Bayesian Coupling:** Extend the framework to interconnected multi-machine systems where posterior probabilities are not independent but structurally coupled through shared buffers and material flow constraints.
2. **Real-World Industrial Validation:** Deploy the framework in a brownfield production environment using real MES and maintenance data to evaluate model robustness under non-ideal and noisy conditions.
3. **Dynamic Cost Surface Modelling:** Develop adaptive economic models where C_{Failure} and C_{PM} vary with production mix, order backlog, and supply-chain volatility, creating a time-dependent intervention threshold.

9.7 Final Statement

This thesis demonstrates that:

- OEE can function as a probabilistic stability metric,
- maintenance can be formalized as a Bayesian confidence decision,
- cost, logistics, and production dynamics can be integrated into a unified probabilistic architecture,
- discrete-event simulation serves as a validation and sensitivity instrument rather than a planning oracle.

The contribution lies not merely in the use of Bayesian Neural Networks, but in embedding probabilistic reasoning into maintenance governance and production-economic decision structures.

The framework is implementable, scalable, and extendable—while its current validation scope is clearly defined.

10 Scientific Statements

Introduction

This chapter summarizes the principal scientific contributions of the dissertation in the form of concise and independently interpretable statements. The following theses are derived from the methodological development and simulation-based validation presented in the preceding chapters.

10.1 T1 – Parameter-Independent Reconstruction and Probabilistic Reinterpretation of OEE

I have demonstrated that Overall Equipment Effectiveness (OEE) can be reconstructed objectively and in a parameter-independent manner using exclusively timestamped production cycle data, without requiring predefined ideal cycle times or subjective loss parameters.

Furthermore, I have shown that OEE can be reinterpreted as a probabilistic state variable representing the conditional likelihood of ideal production behavior, thereby transforming OEE from a descriptive efficiency indicator into a decision-support variable suitable for maintenance decisions under uncertainty.[76]

10.2 T2 – Development of a Sawtooth Hazard Model for Periodic Maintenance Reset

I have developed a sawtooth-shaped hazard rate model based on the Weibull distribution ($\beta = 2$), representing linearly increasing failure intensity combined with periodic maintenance resets, thereby providing a more realistic degradation representation than constant hazard assumptions. [77]

10.3 T3 – Reformulation of Preventive Maintenance as a Bayesian Confidence Threshold Problem

I have demonstrated that preventive maintenance decisions can be reformulated from fixed-interval scheduling problems into probabilistic confidence threshold problems when OEE prediction is embedded within a Bayesian inference framework.[78]

10.4 T4 – Bayesian Neural Network Estimation of OEE Threshold Risk

I have demonstrated that a Bayesian Neural Network (BNN) can be used to quantify both the probability and uncertainty that OEE will fall below a critical threshold within the next decision interval, and that this probabilistic estimate can be directly transformed into an operational decision rule. [78]

10.5 T5 – Simulation-Based Validation under Distinct Maintenance Regimes

Through discrete-event simulation experiments, I have validated that the proposed Bayesian decision rule exhibits distinct but consistent behavior under aggressive, insufficient, and stable maintenance regimes, supporting its applicability for risk-based maintenance timing decisions.

Statement on Scope and Validation Context

The scientific results presented in the above theses have been validated in a controlled simulation environment using synthetically generated datasets. Extended validation using real industrial production data represents a direction for future research.

Appendices

A Original SQLite Data Structure After Experiment Runs

Tables (1044)

Name	Type	Schema
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Throughput_Standard Deviation	real	"Throughput_Standard Deviation" real
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Throughput_Maximum	real	"Throughput_Maximum" real
Throughput_Left interval bound	real	"Throughput_Left interval bound" real
Throughput_Right interval bound	real	"Throughput_Right interval bound" real
JPH	real	"JPH" real
JPH_Standard Deviation	real	"JPH_Standard Deviation" real
JPH_Minimum	real	"JPH_Minimum" real
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JPH_Right interval bound	real	"JPH_Right interval bound" real
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Sigma	real	"Sigma" real
Distribution - Interval	text	"Distribution - Interval" text
Mu	real	"Mu" real
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Brooker active	text	"Brooker active" text
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Time Between Failures	real	"Time Between Failures" real
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Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
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Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_84_DC_R 1		CREATE TABLE FNotes_Exp_A_84_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_84_DC_R 2		CREATE TABLE FNotes_Exp_A_84_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_84_DC_R3		CREATE TABLE FNotes_Exp_A_84_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_84_DC_R4		CREATE TABLE FNotes_Exp_A_84_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_84_DC_R5		CREATE TABLE FNotes_Exp_A_84_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_89_CC_R1		CREATE TABLE FNotes_Exp_A_89_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_89_CC_R2		CREATE TABLE FNotes_Exp_A_89_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_89_CC_R3		CREATE TABLE FNotes_Exp_A_89_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_A_89_CC_R 4		CREATE TABLE FNotes_Exp_A_89_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_89_CC_R 5		CREATE TABLE FNotes_Exp_A_89_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_89_DC_R 1		CREATE TABLE FNotes_Exp_A_89_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_89_DC_R 2		CREATE TABLE FNotes_Exp_A_89_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_89_DC_R 3		CREATE TABLE FNotes_Exp_A_89_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_89_DC_R 4		CREATE TABLE FNotes_Exp_A_89_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_89_DC_R 5		CREATE TABLE FNotes_Exp_A_89_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_94_CC_R 1		CREATE TABLE FNotes_Exp_A_94_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_94_CC_R 2		CREATE TABLE FNotes_Exp_A_94_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_94_CC_R 3		CREATE TABLE FNotes_Exp_A_94_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_94_CC_R 4		CREATE TABLE FNotes_Exp_A_94_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_94_CC_R 5		CREATE TABLE FNotes_Exp_A_94_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_94_DC_R 1		CREATE TABLE FNotes_Exp_A_94_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_A_94_DC_R 2		CREATE TABLE FNotes_Exp_A_94_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_94_DC_R 3		CREATE TABLE FNotes_Exp_A_94_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_94_DC_R 4		CREATE TABLE FNotes_Exp_A_94_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_94_DC_R 5		CREATE TABLE FNotes_Exp_A_94_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_99_CC_R 1		CREATE TABLE FNotes_Exp_A_99_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_99_CC_R 2		CREATE TABLE FNotes_Exp_A_99_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_99_CC_R 3		CREATE TABLE FNotes_Exp_A_99_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_99_CC_R 4		CREATE TABLE FNotes_Exp_A_99_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_99_CC_R 5		CREATE TABLE FNotes_Exp_A_99_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_99_DC_R 1		CREATE TABLE FNotes_Exp_A_99_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_99_DC_R 2		CREATE TABLE FNotes_Exp_A_99_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_99_DC_R 3		CREATE TABLE FNotes_Exp_A_99_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_A_99_DC_R 4		CREATE TABLE FNotes_Exp_A_99_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_A_99_DC_R 5		CREATE TABLE FNotes_Exp_A_99_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_79_CC_R 1		CREATE TABLE FNotes_Exp_B_79_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_79_CC_R 2		CREATE TABLE FNotes_Exp_B_79_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_79_CC_R 3		CREATE TABLE FNotes_Exp_B_79_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_79_CC_R 4		CREATE TABLE FNotes_Exp_B_79_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_79_CC_R 5		CREATE TABLE FNotes_Exp_B_79_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_79_DC_R 1		CREATE TABLE FNotes_Exp_B_79_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_79_DC_R 2		CREATE TABLE FNotes_Exp_B_79_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_79_DC_R 3		CREATE TABLE FNotes_Exp_B_79_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_79_DC_R 4		CREATE TABLE FNotes_Exp_B_79_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_79_DC_R 5		CREATE TABLE FNotes_Exp_B_79_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_84_CC_R 1		CREATE TABLE FNotes_Exp_B_84_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_84_CC_R 2		CREATE TABLE FNotes_Exp_B_84_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_B_84_CC_R 3		CREATE TABLE FNotes_Exp_B_84_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_84_CC_R 4		CREATE TABLE FNotes_Exp_B_84_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_84_CC_R 5		CREATE TABLE FNotes_Exp_B_84_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_84_DC_R 1		CREATE TABLE FNotes_Exp_B_84_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_84_DC_R 2		CREATE TABLE FNotes_Exp_B_84_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_84_DC_R 3		CREATE TABLE FNotes_Exp_B_84_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_84_DC_R 4		CREATE TABLE FNotes_Exp_B_84_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_84_DC_R5		CREATE TABLE FNotes_Exp_B_84_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_89_CC_R1		CREATE TABLE FNotes_Exp_B_89_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_89_CC_R2		CREATE TABLE FNotes_Exp_B_89_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_89_CC_R3		CREATE TABLE FNotes_Exp_B_89_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_89_CC_R4		CREATE TABLE FNotes_Exp_B_89_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_89_CC_R5		CREATE TABLE FNotes_Exp_B_89_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_B_89_DC_R 1		CREATE TABLE FNotes_Exp_B_89_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_89_DC_R 2		CREATE TABLE FNotes_Exp_B_89_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_89_DC_R 3		CREATE TABLE FNotes_Exp_B_89_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_89_DC_R 4		CREATE TABLE FNotes_Exp_B_89_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_89_DC_R 5		CREATE TABLE FNotes_Exp_B_89_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_94_CC_R 1		CREATE TABLE FNotes_Exp_B_94_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_94_CC_R 2		CREATE TABLE FNotes_Exp_B_94_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_94_CC_R3		CREATE TABLE FNotes_Exp_B_94_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_94_CC_R4		CREATE TABLE FNotes_Exp_B_94_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_94_CC_R5		CREATE TABLE FNotes_Exp_B_94_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_94_DC_R1		CREATE TABLE FNotes_Exp_B_94_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_94_DC_R2		CREATE TABLE FNotes_Exp_B_94_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_94_DC_R3		CREATE TABLE FNotes_Exp_B_94_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_B_94_DC_R 4		CREATE TABLE FNotes_Exp_B_94_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_94_DC_R 5		CREATE TABLE FNotes_Exp_B_94_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_99_CC_R 1		CREATE TABLE FNotes_Exp_B_99_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_99_CC_R 2		CREATE TABLE FNotes_Exp_B_99_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_99_CC_R 3		CREATE TABLE FNotes_Exp_B_99_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_99_CC_R 4		CREATE TABLE FNotes_Exp_B_99_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_99_CC_R 5		CREATE TABLE FNotes_Exp_B_99_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_99_DC_R1		CREATE TABLE FNotes_Exp_B_99_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_99_DC_R2		CREATE TABLE FNotes_Exp_B_99_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_99_DC_R3		CREATE TABLE FNotes_Exp_B_99_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_99_DC_R4		CREATE TABLE FNotes_Exp_B_99_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_B_99_DC_R5		CREATE TABLE FNotes_Exp_B_99_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_79_CC_R1		CREATE TABLE FNotes_Exp_C1_79_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_C1_79_CC_R2		CREATE TABLE FNotes_Exp_C1_79_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_79_CC_R3		CREATE TABLE FNotes_Exp_C1_79_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_79_CC_R4		CREATE TABLE FNotes_Exp_C1_79_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_79_CC_R5		CREATE TABLE FNotes_Exp_C1_79_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_79_DC_R1		CREATE TABLE FNotes_Exp_C1_79_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_79_DC_R2		CREATE TABLE FNotes_Exp_C1_79_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_79_DC_R3		CREATE TABLE FNotes_Exp_C1_79_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_79_DC_R4		CREATE TABLE FNotes_Exp_C1_79_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_79_DC_R5		CREATE TABLE FNotes_Exp_C1_79_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_84_CC_R1		CREATE TABLE FNotes_Exp_C1_84_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_84_CC_R2		CREATE TABLE FNotes_Exp_C1_84_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_84_CC_R3		CREATE TABLE FNotes_Exp_C1_84_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_84_CC_R4		CREATE TABLE FNotes_Exp_C1_84_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_C1_84_CC_R5		CREATE TABLE FNotes_Exp_C1_84_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_84_DC_R1		CREATE TABLE FNotes_Exp_C1_84_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_84_DC_R2		CREATE TABLE FNotes_Exp_C1_84_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_84_DC_R3		CREATE TABLE FNotes_Exp_C1_84_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_84_DC_R4		CREATE TABLE FNotes_Exp_C1_84_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_84_DC_R5		CREATE TABLE FNotes_Exp_C1_84_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_89_CC_R1		CREATE TABLE FNotes_Exp_C1_89_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_89_CC_R2		CREATE TABLE FNotes_Exp_C1_89_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_89_CC_R3		CREATE TABLE FNotes_Exp_C1_89_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_89_CC_R4		CREATE TABLE FNotes_Exp_C1_89_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_89_CC_R5		CREATE TABLE FNotes_Exp_C1_89_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_89_DC_R1		CREATE TABLE FNotes_Exp_C1_89_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_89_DC_R2		CREATE TABLE FNotes_Exp_C1_89_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_C1_89_DC_R3		CREATE TABLE FNotes_Exp_C1_89_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_89_DC_R4		CREATE TABLE FNotes_Exp_C1_89_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_89_DC_R5		CREATE TABLE FNotes_Exp_C1_89_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_94_CC_R1		CREATE TABLE FNotes_Exp_C1_94_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_94_CC_R2		CREATE TABLE FNotes_Exp_C1_94_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_94_CC_R3		CREATE TABLE FNotes_Exp_C1_94_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_94_CC_R4		CREATE TABLE FNotes_Exp_C1_94_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_94_CC_R5		CREATE TABLE FNotes_Exp_C1_94_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_94_DC_R1		CREATE TABLE FNotes_Exp_C1_94_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_94_DC_R2		CREATE TABLE FNotes_Exp_C1_94_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_94_DC_R3		CREATE TABLE FNotes_Exp_C1_94_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_94_DC_R4		CREATE TABLE FNotes_Exp_C1_94_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_94_DC_R5		CREATE TABLE FNotes_Exp_C1_94_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_C1_99_CC_R1		CREATE TABLE FNotes_Exp_C1_99_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_99_CC_R2		CREATE TABLE FNotes_Exp_C1_99_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_99_CC_R3		CREATE TABLE FNotes_Exp_C1_99_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_99_CC_R4		CREATE TABLE FNotes_Exp_C1_99_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_99_CC_R5		CREATE TABLE FNotes_Exp_C1_99_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_99_DC_R1		CREATE TABLE FNotes_Exp_C1_99_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_99_DC_R2		CREATE TABLE FNotes_Exp_C1_99_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_99_DC_R3		CREATE TABLE FNotes_Exp_C1_99_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_99_DC_R4		CREATE TABLE FNotes_Exp_C1_99_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C1_99_DC_R5		CREATE TABLE FNotes_Exp_C1_99_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_79_CC_R1		CREATE TABLE FNotes_Exp_C2_79_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_79_CC_R2		CREATE TABLE FNotes_Exp_C2_79_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_79_CC_R3		CREATE TABLE FNotes_Exp_C2_79_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_C2_79_CC_R4		CREATE TABLE FNotes_Exp_C2_79_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_79_CC_R5		CREATE TABLE FNotes_Exp_C2_79_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_79_DC_R1		CREATE TABLE FNotes_Exp_C2_79_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_79_DC_R2		CREATE TABLE FNotes_Exp_C2_79_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_79_DC_R3		CREATE TABLE FNotes_Exp_C2_79_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_79_DC_R4		CREATE TABLE FNotes_Exp_C2_79_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_79_DC_R5		CREATE TABLE FNotes_Exp_C2_79_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_84_CC_R1		CREATE TABLE FNotes_Exp_C2_84_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_84_CC_R2		CREATE TABLE FNotes_Exp_C2_84_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_84_CC_R3		CREATE TABLE FNotes_Exp_C2_84_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_84_CC_R4		CREATE TABLE FNotes_Exp_C2_84_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_84_CC_R5		CREATE TABLE FNotes_Exp_C2_84_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_84_DC_R1		CREATE TABLE FNotes_Exp_C2_84_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_C2_84_DC_R2		CREATE TABLE FNotes_Exp_C2_84_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_84_DC_R3		CREATE TABLE FNotes_Exp_C2_84_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_84_DC_R4		CREATE TABLE FNotes_Exp_C2_84_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_84_DC_R5		CREATE TABLE FNotes_Exp_C2_84_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_89_CC_R1		CREATE TABLE FNotes_Exp_C2_89_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_89_CC_R2		CREATE TABLE FNotes_Exp_C2_89_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_89_CC_R3		CREATE TABLE FNotes_Exp_C2_89_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_89_CC_R4		CREATE TABLE FNotes_Exp_C2_89_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_89_CC_R5		CREATE TABLE FNotes_Exp_C2_89_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_89_DC_R1		CREATE TABLE FNotes_Exp_C2_89_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_89_DC_R2		CREATE TABLE FNotes_Exp_C2_89_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_89_DC_R3		CREATE TABLE FNotes_Exp_C2_89_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_89_DC_R4		CREATE TABLE FNotes_Exp_C2_89_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_C2_89_DC_R5		CREATE TABLE FNotes_Exp_C2_89_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_94_CC_R1		CREATE TABLE FNotes_Exp_C2_94_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_94_CC_R2		CREATE TABLE FNotes_Exp_C2_94_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_94_CC_R3		CREATE TABLE FNotes_Exp_C2_94_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_94_CC_R4		CREATE TABLE FNotes_Exp_C2_94_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_94_CC_R5		CREATE TABLE FNotes_Exp_C2_94_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_94_DC_R1		CREATE TABLE FNotes_Exp_C2_94_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_94_DC_R2		CREATE TABLE FNotes_Exp_C2_94_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_94_DC_R3		CREATE TABLE FNotes_Exp_C2_94_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_94_DC_R4		CREATE TABLE FNotes_Exp_C2_94_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_94_DC_R5		CREATE TABLE FNotes_Exp_C2_94_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_99_CC_R1		CREATE TABLE FNotes_Exp_C2_99_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_99_CC_R2		CREATE TABLE FNotes_Exp_C2_99_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_C2_99_CC_R3		CREATE TABLE FNotes_Exp_C2_99_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_99_CC_R4		CREATE TABLE FNotes_Exp_C2_99_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_99_CC_R5		CREATE TABLE FNotes_Exp_C2_99_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_99_DC_R1		CREATE TABLE FNotes_Exp_C2_99_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_99_DC_R2		CREATE TABLE FNotes_Exp_C2_99_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_99_DC_R3		CREATE TABLE FNotes_Exp_C2_99_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_99_DC_R4		CREATE TABLE FNotes_Exp_C2_99_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_C2_99_DC_R5		CREATE TABLE FNotes_Exp_C2_99_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_m_CC_R1		CREATE TABLE FNotes_Exp_D_m_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_m_CC_R2		CREATE TABLE FNotes_Exp_D_m_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_m_CC_R3		CREATE TABLE FNotes_Exp_D_m_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_m_CC_R4		CREATE TABLE FNotes_Exp_D_m_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_m_CC_R5		CREATE TABLE FNotes_Exp_D_m_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_D_m_DC_R1		CREATE TABLE FNotes_Exp_D_m_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_m_DC_R2		CREATE TABLE FNotes_Exp_D_m_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_m_DC_R3		CREATE TABLE FNotes_Exp_D_m_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_m_DC_R4		CREATE TABLE FNotes_Exp_D_m_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_m_DC_R5		CREATE TABLE FNotes_Exp_D_m_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_s_CC_R1		CREATE TABLE FNotes_Exp_D_s_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_s_CC_R2		CREATE TABLE FNotes_Exp_D_s_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_s_CC_R3		CREATE TABLE FNotes_Exp_D_s_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_s_CC_R4		CREATE TABLE FNotes_Exp_D_s_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_s_CC_R5		CREATE TABLE FNotes_Exp_D_s_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_s_DC_R1		CREATE TABLE FNotes_Exp_D_s_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_s_DC_R2		CREATE TABLE FNotes_Exp_D_s_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_s_DC_R3		CREATE TABLE FNotes_Exp_D_s_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_D_s_DC_R4		CREATE TABLE FNotes_Exp_D_s_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_s_DC_R5		CREATE TABLE FNotes_Exp_D_s_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vm_CC_R1		CREATE TABLE FNotes_Exp_D_vm_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vm_CC_R2		CREATE TABLE FNotes_Exp_D_vm_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vm_CC_R3		CREATE TABLE FNotes_Exp_D_vm_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vm_CC_R4		CREATE TABLE FNotes_Exp_D_vm_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vm_CC_R5		CREATE TABLE FNotes_Exp_D_vm_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vm_DC_R1		CREATE TABLE FNotes_Exp_D_vm_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vm_DC_R2		CREATE TABLE FNotes_Exp_D_vm_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vm_DC_R3		CREATE TABLE FNotes_Exp_D_vm_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vm_DC_R4		CREATE TABLE FNotes_Exp_D_vm_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vm_DC_R5		CREATE TABLE FNotes_Exp_D_vm_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vs_CC_R1		CREATE TABLE FNotes_Exp_D_vs_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_D_vs_CC_R 2		CREATE TABLE FNotes_Exp_D_vs_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vs_CC_R 3		CREATE TABLE FNotes_Exp_D_vs_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vs_CC_R 4		CREATE TABLE FNotes_Exp_D_vs_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vs_CC_R 5		CREATE TABLE FNotes_Exp_D_vs_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vs_DC_R 1		CREATE TABLE FNotes_Exp_D_vs_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vs_DC_R 2		CREATE TABLE FNotes_Exp_D_vs_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vs_DC_R 3		CREATE TABLE FNotes_Exp_D_vs_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vs_DC_R4		CREATE TABLE FNotes_Exp_D_vs_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_vs_DC_R5		CREATE TABLE FNotes_Exp_D_vs_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xm_CC_R1		CREATE TABLE FNotes_Exp_D_xm_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xm_CC_R2		CREATE TABLE FNotes_Exp_D_xm_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xm_CC_R3		CREATE TABLE FNotes_Exp_D_xm_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xm_CC_R4		CREATE TABLE FNotes_Exp_D_xm_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_D_xm_CC_R5		CREATE TABLE FNotes_Exp_D_xm_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xm_DC_R1		CREATE TABLE FNotes_Exp_D_xm_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xm_DC_R2		CREATE TABLE FNotes_Exp_D_xm_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xm_DC_R3		CREATE TABLE FNotes_Exp_D_xm_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xm_DC_R4		CREATE TABLE FNotes_Exp_D_xm_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xm_DC_R5		CREATE TABLE FNotes_Exp_D_xm_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xs_CC_R1		CREATE TABLE FNotes_Exp_D_xs_CC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real

Name	Type	Schema
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xs_CC_R 2		CREATE TABLE FNotes_Exp_D_xs_CC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xs_CC_R 3		CREATE TABLE FNotes_Exp_D_xs_CC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xs_CC_R 4		CREATE TABLE FNotes_Exp_D_xs_CC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xs_CC_R 5		CREATE TABLE FNotes_Exp_D_xs_CC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xs_DC_R 1		CREATE TABLE FNotes_Exp_D_xs_DC_R1 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xs_DC_R 2		CREATE TABLE FNotes_Exp_D_xs_DC_R2 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
FNotes_Exp_D_xs_DC_R3		CREATE TABLE FNotes_Exp_D_xs_DC_R3 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xs_DC_R4		CREATE TABLE FNotes_Exp_D_xs_DC_R4 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
FNotes_Exp_D_xs_DC_R5		CREATE TABLE FNotes_Exp_D_xs_DC_R5 ("Failure Start" real,"Failure End" real,"Time To Repair" real,"Time Between Failures" real,"TimeStamp" real)
Failure Start	real	"Failure Start" real
Failure End	real	"Failure End" real
Time To Repair	real	"Time To Repair" real
Time Between Failures	real	"Time Between Failures" real
TimeStamp	real	"TimeStamp" real
MNotes_Exp_A_79_CC_R1		CREATE TABLE MNotes_Exp_A_79_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_79_CC_R2		CREATE TABLE MNotes_Exp_A_79_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_79_CC_R3		CREATE TABLE MNotes_Exp_A_79_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_79_CC_R4		CREATE TABLE MNotes_Exp_A_79_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_79_CC_R5		CREATE TABLE MNotes_Exp_A_79_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_79_DC_R1		CREATE TABLE MNotes_Exp_A_79_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_79_DC_R2		CREATE TABLE MNotes_Exp_A_79_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_79_DC_R3		CREATE TABLE MNotes_Exp_A_79_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_79_DC_R4		CREATE TABLE MNotes_Exp_A_79_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_79_DC_R5		CREATE TABLE MNotes_Exp_A_79_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_84_CC_R1		CREATE TABLE MNotes_Exp_A_84_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_84_CC_R2		CREATE TABLE MNotes_Exp_A_84_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_84_CC_R3		CREATE TABLE MNotes_Exp_A_84_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_84_CC_R4		CREATE TABLE MNotes_Exp_A_84_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_84_CC_R5		CREATE TABLE MNotes_Exp_A_84_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_84_DC_R1		CREATE TABLE MNotes_Exp_A_84_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_84_DC_R2		CREATE TABLE MNotes_Exp_A_84_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_84_DC_R3		CREATE TABLE MNotes_Exp_A_84_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_84_DC_R4		CREATE TABLE MNotes_Exp_A_84_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_84_DC_R5		CREATE TABLE MNotes_Exp_A_84_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_89_CC_R1		CREATE TABLE MNotes_Exp_A_89_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_89_CC_R2		CREATE TABLE MNotes_Exp_A_89_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_89_CC_R3		CREATE TABLE MNotes_Exp_A_89_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_89_CC_R4		CREATE TABLE MNotes_Exp_A_89_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_89_CC_R5		CREATE TABLE MNotes_Exp_A_89_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_89_DC_R1		CREATE TABLE MNotes_Exp_A_89_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_89_DC_R2		CREATE TABLE MNotes_Exp_A_89_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_89_DC_R3		CREATE TABLE MNotes_Exp_A_89_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_89_DC_R4		CREATE TABLE MNotes_Exp_A_89_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_89_DC_R5		CREATE TABLE MNotes_Exp_A_89_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_94_CC_R1		CREATE TABLE MNotes_Exp_A_94_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_94_CC_R2		CREATE TABLE MNotes_Exp_A_94_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_94_CC_R3		CREATE TABLE MNotes_Exp_A_94_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_94_CC_R4		CREATE TABLE MNotes_Exp_A_94_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_94_CC_R5		CREATE TABLE MNotes_Exp_A_94_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_94_DC_R1		CREATE TABLE MNotes_Exp_A_94_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_94_DC_R2		CREATE TABLE MNotes_Exp_A_94_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_94_DC_R3		CREATE TABLE MNotes_Exp_A_94_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_94_DC_R4		CREATE TABLE MNotes_Exp_A_94_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_94_DC_R5		CREATE TABLE MNotes_Exp_A_94_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_99_CC_R1		CREATE TABLE MNotes_Exp_A_99_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_99_CC_R2		CREATE TABLE MNotes_Exp_A_99_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_99_CC_R3		CREATE TABLE MNotes_Exp_A_99_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_99_CC_R4		CREATE TABLE MNotes_Exp_A_99_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_99_CC_R5		CREATE TABLE MNotes_Exp_A_99_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_99_DC_R1		CREATE TABLE MNotes_Exp_A_99_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_99_DC_R2		CREATE TABLE MNotes_Exp_A_99_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_99_DC_R3		CREATE TABLE MNotes_Exp_A_99_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_99_DC_R4		CREATE TABLE MNotes_Exp_A_99_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_A_99_DC_R5		CREATE TABLE MNotes_Exp_A_99_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_79_CC_R1		CREATE TABLE MNotes_Exp_B_79_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_79_CC_R2		CREATE TABLE MNotes_Exp_B_79_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_79_CC_R3		CREATE TABLE MNotes_Exp_B_79_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_79_CC_R4		CREATE TABLE MNotes_Exp_B_79_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_79_CC_R5		CREATE TABLE MNotes_Exp_B_79_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_79_DC_R1		CREATE TABLE MNotes_Exp_B_79_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_79_DC_R2		CREATE TABLE MNotes_Exp_B_79_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_79_DC_R3		CREATE TABLE MNotes_Exp_B_79_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_79_DC_R4		CREATE TABLE MNotes_Exp_B_79_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_79_DC_R5		CREATE TABLE MNotes_Exp_B_79_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_84_CC_R1		CREATE TABLE MNotes_Exp_B_84_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_84_CC_R2		CREATE TABLE MNotes_Exp_B_84_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_84_CC_R3		CREATE TABLE MNotes_Exp_B_84_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_84_CC_R4		CREATE TABLE MNotes_Exp_B_84_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_84_CC_R5		CREATE TABLE MNotes_Exp_B_84_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_84_DC_R1		CREATE TABLE MNotes_Exp_B_84_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_84_DC_R2		CREATE TABLE MNotes_Exp_B_84_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_84_DC_R3		CREATE TABLE MNotes_Exp_B_84_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_84_DC_R4		CREATE TABLE MNotes_Exp_B_84_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_84_DC_R5		CREATE TABLE MNotes_Exp_B_84_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_89_CC_R1		CREATE TABLE MNotes_Exp_B_89_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_89_CC_R 2		CREATE TABLE MNotes_Exp_B_89_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_89_CC_R 3		CREATE TABLE MNotes_Exp_B_89_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_89_CC_R 4		CREATE TABLE MNotes_Exp_B_89_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_89_CC_R5		CREATE TABLE MNotes_Exp_B_89_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_89_DC_R1		CREATE TABLE MNotes_Exp_B_89_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_89_DC_R2		CREATE TABLE MNotes_Exp_B_89_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_89_DC_R3		CREATE TABLE MNotes_Exp_B_89_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_89_DC_R4		CREATE TABLE MNotes_Exp_B_89_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_89_DC_R5		CREATE TABLE MNotes_Exp_B_89_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_94_CC_R1		CREATE TABLE MNotes_Exp_B_94_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_94_CC_R 2		CREATE TABLE MNotes_Exp_B_94_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_94_CC_R 3		CREATE TABLE MNotes_Exp_B_94_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_94_CC_R4		CREATE TABLE MNotes_Exp_B_94_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_94_CC_R5		CREATE TABLE MNotes_Exp_B_94_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_94_DC_R1		CREATE TABLE MNotes_Exp_B_94_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_94_DC_R2		CREATE TABLE MNotes_Exp_B_94_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_94_DC_R3		CREATE TABLE MNotes_Exp_B_94_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_94_DC_R4		CREATE TABLE MNotes_Exp_B_94_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_94_DC_R5		CREATE TABLE MNotes_Exp_B_94_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_99_CC_R1		CREATE TABLE MNotes_Exp_B_99_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_99_CC_R 2		CREATE TABLE MNotes_Exp_B_99_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_99_CC_R 3		CREATE TABLE MNotes_Exp_B_99_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_99_CC_R4		CREATE TABLE MNotes_Exp_B_99_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_99_CC_R5		CREATE TABLE MNotes_Exp_B_99_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_99_DC_R1		CREATE TABLE MNotes_Exp_B_99_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_99_DC_R2		CREATE TABLE MNotes_Exp_B_99_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_99_DC_R3		CREATE TABLE MNotes_Exp_B_99_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_99_DC_R4		CREATE TABLE MNotes_Exp_B_99_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_B_99_DC_R5		CREATE TABLE MNotes_Exp_B_99_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_79_CC_R1		CREATE TABLE MNotes_Exp_C1_79_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_79_CC_R2		CREATE TABLE MNotes_Exp_C1_79_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_79_CC_R3		CREATE TABLE MNotes_Exp_C1_79_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_79_CC_R4		CREATE TABLE MNotes_Exp_C1_79_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_79_CC_R5		CREATE TABLE MNotes_Exp_C1_79_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_79_DC_R1		CREATE TABLE MNotes_Exp_C1_79_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_79_DC_R2		CREATE TABLE MNotes_Exp_C1_79_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_79_DC_R3		CREATE TABLE MNotes_Exp_C1_79_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_79_DC_R4		CREATE TABLE MNotes_Exp_C1_79_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_79_DC_R5		CREATE TABLE MNotes_Exp_C1_79_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_84_CC_R1		CREATE TABLE MNotes_Exp_C1_84_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_84_CC_R2		CREATE TABLE MNotes_Exp_C1_84_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_84_CC_R3		CREATE TABLE MNotes_Exp_C1_84_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_84_CC_R4		CREATE TABLE MNotes_Exp_C1_84_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_84_CC_R5		CREATE TABLE MNotes_Exp_C1_84_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_84_DC_R1		CREATE TABLE MNotes_Exp_C1_84_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_84_DC_R2		CREATE TABLE MNotes_Exp_C1_84_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_84_DC_R3		CREATE TABLE MNotes_Exp_C1_84_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_84_DC_R4		CREATE TABLE MNotes_Exp_C1_84_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_84_DC_R5		CREATE TABLE MNotes_Exp_C1_84_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_89_CC_R1		CREATE TABLE MNotes_Exp_C1_89_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_89_CC_R2		CREATE TABLE MNotes_Exp_C1_89_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_89_CC_R3		CREATE TABLE MNotes_Exp_C1_89_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_89_CC_R4		CREATE TABLE MNotes_Exp_C1_89_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_89_CC_R5		CREATE TABLE MNotes_Exp_C1_89_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_89_DC_R1		CREATE TABLE MNotes_Exp_C1_89_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_89_DC_R2		CREATE TABLE MNotes_Exp_C1_89_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real)

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_89_DC_R3		CREATE TABLE MNotes_Exp_C1_89_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_89_DC_R4		CREATE TABLE MNotes_Exp_C1_89_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_89_DC_R5		CREATE TABLE MNotes_Exp_C1_89_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_94_CC_R1		CREATE TABLE MNotes_Exp_C1_94_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_94_CC_R2		CREATE TABLE MNotes_Exp_C1_94_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_94_CC_R3		CREATE TABLE MNotes_Exp_C1_94_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_94_CC_R4		CREATE TABLE MNotes_Exp_C1_94_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_94_CC_R5		CREATE TABLE MNotes_Exp_C1_94_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_94_DC_R1		CREATE TABLE MNotes_Exp_C1_94_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_94_DC_R2		CREATE TABLE MNotes_Exp_C1_94_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_94_DC_R3		CREATE TABLE MNotes_Exp_C1_94_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_94_DC_R4		CREATE TABLE MNotes_Exp_C1_94_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_94_DC_R5		CREATE TABLE MNotes_Exp_C1_94_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_99_CC_R1		CREATE TABLE MNotes_Exp_C1_99_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_99_CC_R2		CREATE TABLE MNotes_Exp_C1_99_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_99_CC_R3		CREATE TABLE MNotes_Exp_C1_99_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_99_CC_R4		CREATE TABLE MNotes_Exp_C1_99_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_99_CC_R5		CREATE TABLE MNotes_Exp_C1_99_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_99_DC_R1		CREATE TABLE MNotes_Exp_C1_99_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_99_DC_R2		CREATE TABLE MNotes_Exp_C1_99_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_99_DC_R3		CREATE TABLE MNotes_Exp_C1_99_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_99_DC_R4		CREATE TABLE MNotes_Exp_C1_99_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C1_99_DC_R5		CREATE TABLE MNotes_Exp_C1_99_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_79_CC_R1		CREATE TABLE MNotes_Exp_C2_79_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_79_CC_R2		CREATE TABLE MNotes_Exp_C2_79_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_79_CC_R3		CREATE TABLE MNotes_Exp_C2_79_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_79_CC_R4		CREATE TABLE MNotes_Exp_C2_79_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_79_CC_R5		CREATE TABLE MNotes_Exp_C2_79_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_79_DC_R1		CREATE TABLE MNotes_Exp_C2_79_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_79_DC_R2		CREATE TABLE MNotes_Exp_C2_79_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_79_DC_R3		CREATE TABLE MNotes_Exp_C2_79_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_79_DC_R4		CREATE TABLE MNotes_Exp_C2_79_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_79_DC_R5		CREATE TABLE MNotes_Exp_C2_79_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_84_CC_R1		CREATE TABLE MNotes_Exp_C2_84_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_84_CC_R2		CREATE TABLE MNotes_Exp_C2_84_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_84_CC_R3		CREATE TABLE MNotes_Exp_C2_84_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_84_CC_R4		CREATE TABLE MNotes_Exp_C2_84_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_84_CC_R5		CREATE TABLE MNotes_Exp_C2_84_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_84_DC_R1		CREATE TABLE MNotes_Exp_C2_84_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_84_DC_R2		CREATE TABLE MNotes_Exp_C2_84_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_84_DC_R3		CREATE TABLE MNotes_Exp_C2_84_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_84_DC_R4		CREATE TABLE MNotes_Exp_C2_84_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_84_DC_R5		CREATE TABLE MNotes_Exp_C2_84_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_89_CC_R1		CREATE TABLE MNotes_Exp_C2_89_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_89_CC_R2		CREATE TABLE MNotes_Exp_C2_89_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_89_CC_R3		CREATE TABLE MNotes_Exp_C2_89_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_89_CC_R4		CREATE TABLE MNotes_Exp_C2_89_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_89_CC_R5		CREATE TABLE MNotes_Exp_C2_89_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real)

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_89_DC_R1		CREATE TABLE MNotes_Exp_C2_89_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_89_DC_R2		CREATE TABLE MNotes_Exp_C2_89_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_89_DC_R3		CREATE TABLE MNotes_Exp_C2_89_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_89_DC_R4		CREATE TABLE MNotes_Exp_C2_89_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_89_DC_R5		CREATE TABLE MNotes_Exp_C2_89_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_94_CC_R1		CREATE TABLE MNotes_Exp_C2_94_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_94_CC_R2		CREATE TABLE MNotes_Exp_C2_94_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_94_CC_R3		CREATE TABLE MNotes_Exp_C2_94_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_94_CC_R4		CREATE TABLE MNotes_Exp_C2_94_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_94_CC_R5		CREATE TABLE MNotes_Exp_C2_94_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_94_DC_R1		CREATE TABLE MNotes_Exp_C2_94_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_94_DC_R2		CREATE TABLE MNotes_Exp_C2_94_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_94_DC_R3		CREATE TABLE MNotes_Exp_C2_94_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_94_DC_R4		CREATE TABLE MNotes_Exp_C2_94_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_94_DC_R5		CREATE TABLE MNotes_Exp_C2_94_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_99_CC_R1		CREATE TABLE MNotes_Exp_C2_99_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_99_CC_R2		CREATE TABLE MNotes_Exp_C2_99_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_99_CC_R3		CREATE TABLE MNotes_Exp_C2_99_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_99_CC_R4		CREATE TABLE MNotes_Exp_C2_99_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_99_CC_R5		CREATE TABLE MNotes_Exp_C2_99_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_99_DC_R1		CREATE TABLE MNotes_Exp_C2_99_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_99_DC_R2		CREATE TABLE MNotes_Exp_C2_99_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_99_DC_R3		CREATE TABLE MNotes_Exp_C2_99_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_99_DC_R4		CREATE TABLE MNotes_Exp_C2_99_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_C2_99_DC_R5		CREATE TABLE MNotes_Exp_C2_99_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_m_CC_R1		CREATE TABLE MNotes_Exp_D_m_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_m_CC_R 2		CREATE TABLE MNotes_Exp_D_m_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_m_CC_R 3		CREATE TABLE MNotes_Exp_D_m_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_m_CC_R 4		CREATE TABLE MNotes_Exp_D_m_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_m_CC_R 5		CREATE TABLE MNotes_Exp_D_m_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_m_DC_R 1		CREATE TABLE MNotes_Exp_D_m_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_m_DC_R 2		CREATE TABLE MNotes_Exp_D_m_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_m_DC_R 3		CREATE TABLE MNotes_Exp_D_m_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_m_DC_R4		CREATE TABLE MNotes_Exp_D_m_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_m_DC_R5		CREATE TABLE MNotes_Exp_D_m_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_s_CC_R1		CREATE TABLE MNotes_Exp_D_s_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_s_CC_R2		CREATE TABLE MNotes_Exp_D_s_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_s_CC_R3		CREATE TABLE MNotes_Exp_D_s_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_s_CC_R4		CREATE TABLE MNotes_Exp_D_s_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_s_CC_R5		CREATE TABLE MNotes_Exp_D_s_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_s_DC_R1		CREATE TABLE MNotes_Exp_D_s_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_s_DC_R2		CREATE TABLE MNotes_Exp_D_s_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_s_DC_R3		CREATE TABLE MNotes_Exp_D_s_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_s_DC_R4		CREATE TABLE MNotes_Exp_D_s_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_s_DC_R5		CREATE TABLE MNotes_Exp_D_s_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vm_CC_R1		CREATE TABLE MNotes_Exp_D_vm_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vm_CC_R2		CREATE TABLE MNotes_Exp_D_vm_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vm_CC_R3		CREATE TABLE MNotes_Exp_D_vm_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vm_CC_R4		CREATE TABLE MNotes_Exp_D_vm_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vm_CC_R5		CREATE TABLE MNotes_Exp_D_vm_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vm_DC_R1		CREATE TABLE MNotes_Exp_D_vm_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vm_DC_R2		CREATE TABLE MNotes_Exp_D_vm_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vm_DC_R3		CREATE TABLE MNotes_Exp_D_vm_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vm_DC_R4		CREATE TABLE MNotes_Exp_D_vm_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vm_DC_R5		CREATE TABLE MNotes_Exp_D_vm_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vs_CC_R 1		CREATE TABLE MNotes_Exp_D_vs_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vs_CC_R 2		CREATE TABLE MNotes_Exp_D_vs_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vs_CC_R3		CREATE TABLE MNotes_Exp_D_vs_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vs_CC_R4		CREATE TABLE MNotes_Exp_D_vs_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vs_CC_R5		CREATE TABLE MNotes_Exp_D_vs_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vs_DC_R1		CREATE TABLE MNotes_Exp_D_vs_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vs_DC_R2		CREATE TABLE MNotes_Exp_D_vs_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vs_DC_R 3		CREATE TABLE MNotes_Exp_D_vs_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vs_DC_R 4		CREATE TABLE MNotes_Exp_D_vs_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_vs_DC_R5		CREATE TABLE MNotes_Exp_D_vs_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xm_CC_R1		CREATE TABLE MNotes_Exp_D_xm_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xm_CC_R2		CREATE TABLE MNotes_Exp_D_xm_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xm_CC_R3		CREATE TABLE MNotes_Exp_D_xm_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xm_CC_R4		CREATE TABLE MNotes_Exp_D_xm_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xm_CC_R5		CREATE TABLE MNotes_Exp_D_xm_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xm_DC_R1		CREATE TABLE MNotes_Exp_D_xm_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xm_DC_R2		CREATE TABLE MNotes_Exp_D_xm_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real)

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xm_DC_R3		CREATE TABLE MNotes_Exp_D_xm_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xm_DC_R4		CREATE TABLE MNotes_Exp_D_xm_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real

Name	Type	Schema
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xm_DC_R5		CREATE TABLE MNotes_Exp_D_xm_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xs_CC_R1		CREATE TABLE MNotes_Exp_D_xs_CC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer

Name	Type	Schema
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xs_CC_R2		CREATE TABLE MNotes_Exp_D_xs_CC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xs_CC_R3		CREATE TABLE MNotes_Exp_D_xs_CC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xs_CC_R4		CREATE TABLE MNotes_Exp_D_xs_CC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)

Name	Type	Schema
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xs_CC_R5		CREATE TABLE MNotes_Exp_D_xs_CC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xs_DC_R1		CREATE TABLE MNotes_Exp_D_xs_DC_R1 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer

Name	Type	Schema
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xs_DC_R 2		CREATE TABLE MNotes_Exp_D_xs_DC_R2 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xs_DC_R 3		CREATE TABLE MNotes_Exp_D_xs_DC_R3 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xs_DC_R 4		CREATE TABLE MNotes_Exp_D_xs_DC_R4 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate"

Name	Type	Schema
		real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
MNotes_Exp_D_xs_DC_R5		CREATE TABLE MNotes_Exp_D_xs_DC_R5 ("Maintenance Start" real,"Maintenance End" real,"Time To Check" real,"Time Between Checks" real,"Arrival Rate" real,"Service Rate" real,"Exit Rate" real,"NumOut_Source" integer,"Throughput_Source" integer,"NumOut_Service" integer,"Throughput_Service" integer,"NumOut_Drain" integer,"Throughput_Drain" integer,"Timestamp" real)
Maintenance Start	real	"Maintenance Start" real
Maintenance End	real	"Maintenance End" real
Time To Check	real	"Time To Check" real
Time Between Checks	real	"Time Between Checks" real
Arrival Rate	real	"Arrival Rate" real
Service Rate	real	"Service Rate" real
Exit Rate	real	"Exit Rate" real
NumOut_Source	integer	"NumOut_Source" integer
Throughput_Source	integer	"Throughput_Source" integer
NumOut_Service	integer	"NumOut_Service" integer
Throughput_Service	integer	"Throughput_Service" integer
NumOut_Drain	integer	"NumOut_Drain" integer
Throughput_Drain	integer	"Throughput_Drain" integer
Timestamp	real	"Timestamp" real
TS_In_Exp_A_79_CC_R1		CREATE TABLE TS_In_Exp_A_79_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_79_CC_R2		CREATE TABLE TS_In_Exp_A_79_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)

Name	Type	Schema
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_79_CC_R3		CREATE TABLE TS_In_Exp_A_79_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_79_CC_R4		CREATE TABLE TS_In_Exp_A_79_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_79_CC_R5		CREATE TABLE TS_In_Exp_A_79_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_79_DC_R1		CREATE TABLE TS_In_Exp_A_79_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_79_DC_R2		CREATE TABLE TS_In_Exp_A_79_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer

Name	Type	Schema
TS_In_Exp_A_79_DC_R3		CREATE TABLE TS_In_Exp_A_79_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_79_DC_R4		CREATE TABLE TS_In_Exp_A_79_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_79_DC_R5		CREATE TABLE TS_In_Exp_A_79_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_84_CC_R1		CREATE TABLE TS_In_Exp_A_84_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_84_CC_R2		CREATE TABLE TS_In_Exp_A_84_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_84_CC_R3		CREATE TABLE TS_In_Exp_A_84_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text

Name	Type	Schema
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_84_CC_R4		CREATE TABLE TS_In_Exp_A_84_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_84_CC_R5		CREATE TABLE TS_In_Exp_A_84_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_84_DC_R1		CREATE TABLE TS_In_Exp_A_84_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_84_DC_R2		CREATE TABLE TS_In_Exp_A_84_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_84_DC_R3		CREATE TABLE TS_In_Exp_A_84_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_84_DC_R4		CREATE TABLE TS_In_Exp_A_84_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer

Name	Type	Schema
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_84_DC_R5		CREATE TABLE TS_In_Exp_A_84_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_89_CC_R1		CREATE TABLE TS_In_Exp_A_89_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_89_CC_R2		CREATE TABLE TS_In_Exp_A_89_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_89_CC_R3		CREATE TABLE TS_In_Exp_A_89_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_89_CC_R4		CREATE TABLE TS_In_Exp_A_89_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_89_CC_R5		CREATE TABLE TS_In_Exp_A_89_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)

Name	Type	Schema
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_89_DC_R1		CREATE TABLE TS_In_Exp_A_89_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_89_DC_R2		CREATE TABLE TS_In_Exp_A_89_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_89_DC_R3		CREATE TABLE TS_In_Exp_A_89_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_89_DC_R4		CREATE TABLE TS_In_Exp_A_89_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_89_DC_R5		CREATE TABLE TS_In_Exp_A_89_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer

Name	Type	Schema
TS_In_Exp_A_94_CC_R1		CREATE TABLE TS_In_Exp_A_94_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_94_CC_R2		CREATE TABLE TS_In_Exp_A_94_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_94_CC_R3		CREATE TABLE TS_In_Exp_A_94_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_94_CC_R4		CREATE TABLE TS_In_Exp_A_94_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_94_CC_R5		CREATE TABLE TS_In_Exp_A_94_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_94_DC_R1		CREATE TABLE TS_In_Exp_A_94_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text

Name	Type	Schema
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_94_DC_R2		CREATE TABLE TS_In_Exp_A_94_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_94_DC_R3		CREATE TABLE TS_In_Exp_A_94_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_94_DC_R4		CREATE TABLE TS_In_Exp_A_94_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_94_DC_R5		CREATE TABLE TS_In_Exp_A_94_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_99_CC_R1		CREATE TABLE TS_In_Exp_A_99_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_99_CC_R2		CREATE TABLE TS_In_Exp_A_99_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer

Name	Type	Schema
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_99_CC_R3		CREATE TABLE TS_In_Exp_A_99_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_99_CC_R4		CREATE TABLE TS_In_Exp_A_99_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_99_CC_R5		CREATE TABLE TS_In_Exp_A_99_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_99_DC_R1		CREATE TABLE TS_In_Exp_A_99_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_99_DC_R2		CREATE TABLE TS_In_Exp_A_99_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_99_DC_R3		CREATE TABLE TS_In_Exp_A_99_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)

Name	Type	Schema
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_99_DC_R4		CREATE TABLE TS_In_Exp_A_99_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_A_99_DC_R5		CREATE TABLE TS_In_Exp_A_99_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_79_CC_R1		CREATE TABLE TS_In_Exp_B_79_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_79_CC_R2		CREATE TABLE TS_In_Exp_B_79_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_79_CC_R3		CREATE TABLE TS_In_Exp_B_79_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer

Name	Type	Schema
TS_In_Exp_B_79_CC_R4		CREATE TABLE TS_In_Exp_B_79_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_79_CC_R5		CREATE TABLE TS_In_Exp_B_79_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_79_DC_R1		CREATE TABLE TS_In_Exp_B_79_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_79_DC_R2		CREATE TABLE TS_In_Exp_B_79_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_79_DC_R3		CREATE TABLE TS_In_Exp_B_79_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_79_DC_R4		CREATE TABLE TS_In_Exp_B_79_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text

Name	Type	Schema
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_79_DC_R5		CREATE TABLE TS_In_Exp_B_79_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_84_CC_R1		CREATE TABLE TS_In_Exp_B_84_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_84_CC_R2		CREATE TABLE TS_In_Exp_B_84_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_84_CC_R3		CREATE TABLE TS_In_Exp_B_84_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_84_CC_R4		CREATE TABLE TS_In_Exp_B_84_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_84_CC_R5		CREATE TABLE TS_In_Exp_B_84_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer

Name	Type	Schema
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_84_DC_R1		CREATE TABLE TS_In_Exp_B_84_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_84_DC_R2		CREATE TABLE TS_In_Exp_B_84_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_84_DC_R3		CREATE TABLE TS_In_Exp_B_84_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_84_DC_R4		CREATE TABLE TS_In_Exp_B_84_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_84_DC_R5		CREATE TABLE TS_In_Exp_B_84_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_89_CC_R1		CREATE TABLE TS_In_Exp_B_89_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)

Name	Type	Schema
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_89_CC_R2		CREATE TABLE TS_In_Exp_B_89_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_89_CC_R3		CREATE TABLE TS_In_Exp_B_89_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_89_CC_R4		CREATE TABLE TS_In_Exp_B_89_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_89_CC_R5		CREATE TABLE TS_In_Exp_B_89_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_89_DC_R1		CREATE TABLE TS_In_Exp_B_89_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer

Name	Type	Schema
TS_In_Exp_B_89_DC_R2		CREATE TABLE TS_In_Exp_B_89_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_89_DC_R3		CREATE TABLE TS_In_Exp_B_89_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_89_DC_R4		CREATE TABLE TS_In_Exp_B_89_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_89_DC_R5		CREATE TABLE TS_In_Exp_B_89_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_94_CC_R1		CREATE TABLE TS_In_Exp_B_94_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_94_CC_R2		CREATE TABLE TS_In_Exp_B_94_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text

Name	Type	Schema
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_94_CC_R3		CREATE TABLE TS_In_Exp_B_94_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_94_CC_R4		CREATE TABLE TS_In_Exp_B_94_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_94_CC_R5		CREATE TABLE TS_In_Exp_B_94_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_94_DC_R1		CREATE TABLE TS_In_Exp_B_94_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_94_DC_R2		CREATE TABLE TS_In_Exp_B_94_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_94_DC_R3		CREATE TABLE TS_In_Exp_B_94_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer

Name	Type	Schema
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_94_DC_R4		CREATE TABLE TS_In_Exp_B_94_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_94_DC_R5		CREATE TABLE TS_In_Exp_B_94_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_99_CC_R1		CREATE TABLE TS_In_Exp_B_99_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_99_CC_R2		CREATE TABLE TS_In_Exp_B_99_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_99_CC_R3		CREATE TABLE TS_In_Exp_B_99_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_99_CC_R4		CREATE TABLE TS_In_Exp_B_99_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)

Name	Type	Schema
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_99_CC_R5		CREATE TABLE TS_In_Exp_B_99_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_99_DC_R1		CREATE TABLE TS_In_Exp_B_99_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_99_DC_R2		CREATE TABLE TS_In_Exp_B_99_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_99_DC_R3		CREATE TABLE TS_In_Exp_B_99_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_B_99_DC_R4		CREATE TABLE TS_In_Exp_B_99_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer

Name	Type	Schema
TS_In_Exp_B_99_DC_R5		CREATE TABLE TS_In_Exp_B_99_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_79_CC_R 1		CREATE TABLE TS_In_Exp_C1_79_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_79_CC_R 2		CREATE TABLE TS_In_Exp_C1_79_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_79_CC_R 3		CREATE TABLE TS_In_Exp_C1_79_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_79_CC_R 4		CREATE TABLE TS_In_Exp_C1_79_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_79_CC_R 5		CREATE TABLE TS_In_Exp_C1_79_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text

Name	Type	Schema
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_79_DC_R 1		CREATE TABLE TS_In_Exp_C1_79_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_79_DC_R 2		CREATE TABLE TS_In_Exp_C1_79_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_79_DC_R 3		CREATE TABLE TS_In_Exp_C1_79_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_79_DC_R 4		CREATE TABLE TS_In_Exp_C1_79_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_79_DC_R 5		CREATE TABLE TS_In_Exp_C1_79_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_84_CC_R 1		CREATE TABLE TS_In_Exp_C1_84_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer

Name	Type	Schema
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_84_CC_R 2		CREATE TABLE TS_In_Exp_C1_84_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_84_CC_R 3		CREATE TABLE TS_In_Exp_C1_84_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_84_CC_R 4		CREATE TABLE TS_In_Exp_C1_84_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_84_CC_R 5		CREATE TABLE TS_In_Exp_C1_84_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_84_DC_R 1		CREATE TABLE TS_In_Exp_C1_84_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_84_DC_R 2		CREATE TABLE TS_In_Exp_C1_84_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)

Name	Type	Schema
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_84_DC_R3		CREATE TABLE TS_In_Exp_C1_84_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_84_DC_R4		CREATE TABLE TS_In_Exp_C1_84_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_84_DC_R5		CREATE TABLE TS_In_Exp_C1_84_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_89_CC_R1		CREATE TABLE TS_In_Exp_C1_89_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_89_CC_R2		CREATE TABLE TS_In_Exp_C1_89_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer

Name	Type	Schema
TS_In_Exp_C1_89_CC_R 3		CREATE TABLE TS_In_Exp_C1_89_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_89_CC_R 4		CREATE TABLE TS_In_Exp_C1_89_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_89_CC_R 5		CREATE TABLE TS_In_Exp_C1_89_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_89_DC_R 1		CREATE TABLE TS_In_Exp_C1_89_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_89_DC_R 2		CREATE TABLE TS_In_Exp_C1_89_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_89_DC_R 3		CREATE TABLE TS_In_Exp_C1_89_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text

Name	Type	Schema
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_89_DC_R 4		CREATE TABLE TS_In_Exp_C1_89_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_89_DC_R 5		CREATE TABLE TS_In_Exp_C1_89_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_94_CC_R 1		CREATE TABLE TS_In_Exp_C1_94_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_94_CC_R 2		CREATE TABLE TS_In_Exp_C1_94_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_94_CC_R 3		CREATE TABLE TS_In_Exp_C1_94_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_94_CC_R 4		CREATE TABLE TS_In_Exp_C1_94_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer

Name	Type	Schema
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_94_CC_R5		CREATE TABLE TS_In_Exp_C1_94_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_94_DC_R1		CREATE TABLE TS_In_Exp_C1_94_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_94_DC_R2		CREATE TABLE TS_In_Exp_C1_94_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_94_DC_R3		CREATE TABLE TS_In_Exp_C1_94_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_94_DC_R4		CREATE TABLE TS_In_Exp_C1_94_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_94_DC_R5		CREATE TABLE TS_In_Exp_C1_94_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)

Name	Type	Schema
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_99_CC_R 1		CREATE TABLE TS_In_Exp_C1_99_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_99_CC_R 2		CREATE TABLE TS_In_Exp_C1_99_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_99_CC_R 3		CREATE TABLE TS_In_Exp_C1_99_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_99_CC_R 4		CREATE TABLE TS_In_Exp_C1_99_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_99_CC_R 5		CREATE TABLE TS_In_Exp_C1_99_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer

Name	Type	Schema
TS_In_Exp_C1_99_DC_R 1		CREATE TABLE TS_In_Exp_C1_99_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_99_DC_R 2		CREATE TABLE TS_In_Exp_C1_99_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_99_DC_R 3		CREATE TABLE TS_In_Exp_C1_99_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_99_DC_R 4		CREATE TABLE TS_In_Exp_C1_99_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C1_99_DC_R 5		CREATE TABLE TS_In_Exp_C1_99_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_79_CC_R 1		CREATE TABLE TS_In_Exp_C2_79_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text

Name	Type	Schema
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_79_CC_R 2		CREATE TABLE TS_In_Exp_C2_79_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_79_CC_R 3		CREATE TABLE TS_In_Exp_C2_79_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_79_CC_R 4		CREATE TABLE TS_In_Exp_C2_79_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_79_CC_R 5		CREATE TABLE TS_In_Exp_C2_79_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_79_DC_R 1		CREATE TABLE TS_In_Exp_C2_79_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_79_DC_R 2		CREATE TABLE TS_In_Exp_C2_79_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer

Name	Type	Schema
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_79_DC_R3		CREATE TABLE TS_In_Exp_C2_79_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_79_DC_R4		CREATE TABLE TS_In_Exp_C2_79_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_79_DC_R5		CREATE TABLE TS_In_Exp_C2_79_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_84_CC_R1		CREATE TABLE TS_In_Exp_C2_84_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_84_CC_R2		CREATE TABLE TS_In_Exp_C2_84_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_84_CC_R3		CREATE TABLE TS_In_Exp_C2_84_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)

Name	Type	Schema
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_84_CC_R 4		CREATE TABLE TS_In_Exp_C2_84_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_84_CC_R 5		CREATE TABLE TS_In_Exp_C2_84_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_84_DC_R 1		CREATE TABLE TS_In_Exp_C2_84_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_84_DC_R 2		CREATE TABLE TS_In_Exp_C2_84_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_84_DC_R 3		CREATE TABLE TS_In_Exp_C2_84_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer

Name	Type	Schema
TS_In_Exp_C2_84_DC_R4		CREATE TABLE TS_In_Exp_C2_84_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_84_DC_R5		CREATE TABLE TS_In_Exp_C2_84_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_89_CC_R1		CREATE TABLE TS_In_Exp_C2_89_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_89_CC_R2		CREATE TABLE TS_In_Exp_C2_89_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_89_CC_R3		CREATE TABLE TS_In_Exp_C2_89_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_89_CC_R4		CREATE TABLE TS_In_Exp_C2_89_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text

Name	Type	Schema
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_89_CC_R5		CREATE TABLE TS_In_Exp_C2_89_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_89_DC_R1		CREATE TABLE TS_In_Exp_C2_89_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_89_DC_R2		CREATE TABLE TS_In_Exp_C2_89_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_89_DC_R3		CREATE TABLE TS_In_Exp_C2_89_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_89_DC_R4		CREATE TABLE TS_In_Exp_C2_89_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_89_DC_R5		CREATE TABLE TS_In_Exp_C2_89_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer

Name	Type	Schema
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_94_CC_R1		CREATE TABLE TS_In_Exp_C2_94_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_94_CC_R2		CREATE TABLE TS_In_Exp_C2_94_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_94_CC_R3		CREATE TABLE TS_In_Exp_C2_94_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_94_CC_R4		CREATE TABLE TS_In_Exp_C2_94_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_94_CC_R5		CREATE TABLE TS_In_Exp_C2_94_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_94_DC_R1		CREATE TABLE TS_In_Exp_C2_94_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)

Name	Type	Schema
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_94_DC_R 2		CREATE TABLE TS_In_Exp_C2_94_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_94_DC_R 3		CREATE TABLE TS_In_Exp_C2_94_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_94_DC_R 4		CREATE TABLE TS_In_Exp_C2_94_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_94_DC_R 5		CREATE TABLE TS_In_Exp_C2_94_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_99_CC_R 1		CREATE TABLE TS_In_Exp_C2_99_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer

Name	Type	Schema
TS_In_Exp_C2_99_CC_R 2		CREATE TABLE TS_In_Exp_C2_99_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_99_CC_R 3		CREATE TABLE TS_In_Exp_C2_99_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_99_CC_R 4		CREATE TABLE TS_In_Exp_C2_99_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_99_CC_R 5		CREATE TABLE TS_In_Exp_C2_99_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_99_DC_R 1		CREATE TABLE TS_In_Exp_C2_99_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_99_DC_R 2		CREATE TABLE TS_In_Exp_C2_99_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text

Name	Type	Schema
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_99_DC_R3		CREATE TABLE TS_In_Exp_C2_99_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_99_DC_R4		CREATE TABLE TS_In_Exp_C2_99_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_C2_99_DC_R5		CREATE TABLE TS_In_Exp_C2_99_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_m_CC_R1		CREATE TABLE TS_In_Exp_D_m_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_m_CC_R2		CREATE TABLE TS_In_Exp_D_m_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_m_CC_R3		CREATE TABLE TS_In_Exp_D_m_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer

Name	Type	Schema
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_m_CC_R4		CREATE TABLE TS_In_Exp_D_m_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_m_CC_R5		CREATE TABLE TS_In_Exp_D_m_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_m_DC_R1		CREATE TABLE TS_In_Exp_D_m_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_m_DC_R2		CREATE TABLE TS_In_Exp_D_m_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_m_DC_R3		CREATE TABLE TS_In_Exp_D_m_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_m_DC_R4		CREATE TABLE TS_In_Exp_D_m_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)

Name	Type	Schema
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_m_DC_R5		CREATE TABLE TS_In_Exp_D_m_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_s_CC_R1		CREATE TABLE TS_In_Exp_D_s_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_s_CC_R2		CREATE TABLE TS_In_Exp_D_s_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_s_CC_R3		CREATE TABLE TS_In_Exp_D_s_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_s_CC_R4		CREATE TABLE TS_In_Exp_D_s_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer

Name	Type	Schema
TS_In_Exp_D_s_CC_R5		CREATE TABLE TS_In_Exp_D_s_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_s_DC_R1		CREATE TABLE TS_In_Exp_D_s_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_s_DC_R2		CREATE TABLE TS_In_Exp_D_s_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_s_DC_R3		CREATE TABLE TS_In_Exp_D_s_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_s_DC_R4		CREATE TABLE TS_In_Exp_D_s_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_s_DC_R5		CREATE TABLE TS_In_Exp_D_s_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text

Name	Type	Schema
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vm_CC_R 1		CREATE TABLE TS_In_Exp_D_vm_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vm_CC_R 2		CREATE TABLE TS_In_Exp_D_vm_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vm_CC_R 3		CREATE TABLE TS_In_Exp_D_vm_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vm_CC_R 4		CREATE TABLE TS_In_Exp_D_vm_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vm_CC_R 5		CREATE TABLE TS_In_Exp_D_vm_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vm_DC_R 1		CREATE TABLE TS_In_Exp_D_vm_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer

Name	Type	Schema
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vm_DC_R 2		CREATE TABLE TS_In_Exp_D_vm_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vm_DC_R 3		CREATE TABLE TS_In_Exp_D_vm_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vm_DC_R 4		CREATE TABLE TS_In_Exp_D_vm_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vm_DC_R 5		CREATE TABLE TS_In_Exp_D_vm_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vs_CC_R1		CREATE TABLE TS_In_Exp_D_vs_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vs_CC_R2		CREATE TABLE TS_In_Exp_D_vs_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)

Name	Type	Schema
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vs_CC_R3		CREATE TABLE TS_In_Exp_D_vs_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vs_CC_R4		CREATE TABLE TS_In_Exp_D_vs_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vs_CC_R5		CREATE TABLE TS_In_Exp_D_vs_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vs_DC_R1		CREATE TABLE TS_In_Exp_D_vs_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vs_DC_R2		CREATE TABLE TS_In_Exp_D_vs_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer

Name	Type	Schema
TS_In_Exp_D_vs_DC_R3		CREATE TABLE TS_In_Exp_D_vs_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vs_DC_R4		CREATE TABLE TS_In_Exp_D_vs_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_vs_DC_R5		CREATE TABLE TS_In_Exp_D_vs_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xm_CC_R1		CREATE TABLE TS_In_Exp_D_xm_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xm_CC_R2		CREATE TABLE TS_In_Exp_D_xm_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xm_CC_R3		CREATE TABLE TS_In_Exp_D_xm_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text

Name	Type	Schema
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xm_CC_R 4		CREATE TABLE TS_In_Exp_D_xm_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xm_CC_R 5		CREATE TABLE TS_In_Exp_D_xm_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xm_DC_R 1		CREATE TABLE TS_In_Exp_D_xm_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xm_DC_R 2		CREATE TABLE TS_In_Exp_D_xm_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xm_DC_R 3		CREATE TABLE TS_In_Exp_D_xm_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xm_DC_R 4		CREATE TABLE TS_In_Exp_D_xm_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer

Name	Type	Schema
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xm_DC_R5		CREATE TABLE TS_In_Exp_D_xm_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xs_CC_R1		CREATE TABLE TS_In_Exp_D_xs_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xs_CC_R2		CREATE TABLE TS_In_Exp_D_xs_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xs_CC_R3		CREATE TABLE TS_In_Exp_D_xs_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xs_CC_R4		CREATE TABLE TS_In_Exp_D_xs_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xs_CC_R5		CREATE TABLE TS_In_Exp_D_xs_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)

Name	Type	Schema
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xs_DC_R1		CREATE TABLE TS_In_Exp_D_xs_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xs_DC_R2		CREATE TABLE TS_In_Exp_D_xs_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xs_DC_R3		CREATE TABLE TS_In_Exp_D_xs_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xs_DC_R4		CREATE TABLE TS_In_Exp_D_xs_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer
TS_In_Exp_D_xs_DC_R5		CREATE TABLE TS_In_Exp_D_xs_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real,"Buffer_Level" integer)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
Buffer_Level	integer	"Buffer_Level" integer

Name	Type	Schema
TS_Out_Exp_A_79_CC_R1		CREATE TABLE TS_Out_Exp_A_79_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_79_CC_R2		CREATE TABLE TS_Out_Exp_A_79_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_79_CC_R3		CREATE TABLE TS_Out_Exp_A_79_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_79_CC_R4		CREATE TABLE TS_Out_Exp_A_79_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_79_CC_R5		CREATE TABLE TS_Out_Exp_A_79_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_79_DC_R1		CREATE TABLE TS_Out_Exp_A_79_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_79_DC_R2		CREATE TABLE TS_Out_Exp_A_79_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_79_DC_R3		CREATE TABLE TS_Out_Exp_A_79_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_79_DC_R4		CREATE TABLE TS_Out_Exp_A_79_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_79_DC_R5		CREATE TABLE TS_Out_Exp_A_79_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_84_CC_R1		CREATE TABLE TS_Out_Exp_A_84_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_84_CC_R2		CREATE TABLE TS_Out_Exp_A_84_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_84_CC_R3		CREATE TABLE TS_Out_Exp_A_84_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_A_84_CC_R4		CREATE TABLE TS_Out_Exp_A_84_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_84_CC_R5		CREATE TABLE TS_Out_Exp_A_84_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_84_DC_R1		CREATE TABLE TS_Out_Exp_A_84_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_84_DC_R2		CREATE TABLE TS_Out_Exp_A_84_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_84_DC_R3		CREATE TABLE TS_Out_Exp_A_84_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_84_DC_R4		CREATE TABLE TS_Out_Exp_A_84_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_84_DC_R5		CREATE TABLE TS_Out_Exp_A_84_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_89_CC_R1		CREATE TABLE TS_Out_Exp_A_89_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_89_CC_R2		CREATE TABLE TS_Out_Exp_A_89_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_89_CC_R3		CREATE TABLE TS_Out_Exp_A_89_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_89_CC_R4		CREATE TABLE TS_Out_Exp_A_89_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_89_CC_R5		CREATE TABLE TS_Out_Exp_A_89_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_89_DC_R1		CREATE TABLE TS_Out_Exp_A_89_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_A_89_DC_R2		CREATE TABLE TS_Out_Exp_A_89_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_89_DC_R3		CREATE TABLE TS_Out_Exp_A_89_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_89_DC_R4		CREATE TABLE TS_Out_Exp_A_89_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_89_DC_R5		CREATE TABLE TS_Out_Exp_A_89_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_94_CC_R1		CREATE TABLE TS_Out_Exp_A_94_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_94_CC_R2		CREATE TABLE TS_Out_Exp_A_94_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_94_CC_R3		CREATE TABLE TS_Out_Exp_A_94_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_94_CC_R4		CREATE TABLE TS_Out_Exp_A_94_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_94_CC_R5		CREATE TABLE TS_Out_Exp_A_94_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_94_DC_R1		CREATE TABLE TS_Out_Exp_A_94_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_94_DC_R2		CREATE TABLE TS_Out_Exp_A_94_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_94_DC_R3		CREATE TABLE TS_Out_Exp_A_94_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_94_DC_R4		CREATE TABLE TS_Out_Exp_A_94_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_A_94_DC_R5		CREATE TABLE TS_Out_Exp_A_94_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_99_CC_R1		CREATE TABLE TS_Out_Exp_A_99_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_99_CC_R2		CREATE TABLE TS_Out_Exp_A_99_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_99_CC_R3		CREATE TABLE TS_Out_Exp_A_99_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_99_CC_R4		CREATE TABLE TS_Out_Exp_A_99_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_99_CC_R5		CREATE TABLE TS_Out_Exp_A_99_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_99_DC_R1		CREATE TABLE TS_Out_Exp_A_99_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_99_DC_R2		CREATE TABLE TS_Out_Exp_A_99_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_99_DC_R3		CREATE TABLE TS_Out_Exp_A_99_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_99_DC_R4		CREATE TABLE TS_Out_Exp_A_99_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_A_99_DC_R5		CREATE TABLE TS_Out_Exp_A_99_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_79_CC_R1		CREATE TABLE TS_Out_Exp_B_79_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_79_CC_R2		CREATE TABLE TS_Out_Exp_B_79_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_B_79_CC_R3		CREATE TABLE TS_Out_Exp_B_79_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_79_CC_R4		CREATE TABLE TS_Out_Exp_B_79_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_79_CC_R5		CREATE TABLE TS_Out_Exp_B_79_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_79_DC_R1		CREATE TABLE TS_Out_Exp_B_79_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_79_DC_R2		CREATE TABLE TS_Out_Exp_B_79_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_79_DC_R3		CREATE TABLE TS_Out_Exp_B_79_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_79_DC_R4		CREATE TABLE TS_Out_Exp_B_79_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_79_DC_R5		CREATE TABLE TS_Out_Exp_B_79_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_84_CC_R1		CREATE TABLE TS_Out_Exp_B_84_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_84_CC_R2		CREATE TABLE TS_Out_Exp_B_84_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_84_CC_R3		CREATE TABLE TS_Out_Exp_B_84_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_84_CC_R4		CREATE TABLE TS_Out_Exp_B_84_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_84_CC_R5		CREATE TABLE TS_Out_Exp_B_84_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_B_84_DC_R1		CREATE TABLE TS_Out_Exp_B_84_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_84_DC_R2		CREATE TABLE TS_Out_Exp_B_84_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_84_DC_R3		CREATE TABLE TS_Out_Exp_B_84_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_84_DC_R4		CREATE TABLE TS_Out_Exp_B_84_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_84_DC_R5		CREATE TABLE TS_Out_Exp_B_84_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_89_CC_R1		CREATE TABLE TS_Out_Exp_B_89_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_89_CC_R2		CREATE TABLE TS_Out_Exp_B_89_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_89_CC_R3		CREATE TABLE TS_Out_Exp_B_89_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_89_CC_R4		CREATE TABLE TS_Out_Exp_B_89_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_89_CC_R5		CREATE TABLE TS_Out_Exp_B_89_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_89_DC_R1		CREATE TABLE TS_Out_Exp_B_89_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_89_DC_R2		CREATE TABLE TS_Out_Exp_B_89_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_89_DC_R3		CREATE TABLE TS_Out_Exp_B_89_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_B_89_DC_R 4		CREATE TABLE TS_Out_Exp_B_89_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_89_DC_R 5		CREATE TABLE TS_Out_Exp_B_89_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_94_CC_R 1		CREATE TABLE TS_Out_Exp_B_94_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_94_CC_R 2		CREATE TABLE TS_Out_Exp_B_94_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_94_CC_R 3		CREATE TABLE TS_Out_Exp_B_94_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_94_CC_R 4		CREATE TABLE TS_Out_Exp_B_94_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_94_CC_R 5		CREATE TABLE TS_Out_Exp_B_94_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_94_DC_R 1		CREATE TABLE TS_Out_Exp_B_94_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_94_DC_R 2		CREATE TABLE TS_Out_Exp_B_94_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_94_DC_R 3		CREATE TABLE TS_Out_Exp_B_94_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_94_DC_R 4		CREATE TABLE TS_Out_Exp_B_94_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_94_DC_R 5		CREATE TABLE TS_Out_Exp_B_94_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_99_CC_R 1		CREATE TABLE TS_Out_Exp_B_99_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_B_99_CC_R 2		CREATE TABLE TS_Out_Exp_B_99_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_99_CC_R 3		CREATE TABLE TS_Out_Exp_B_99_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_99_CC_R 4		CREATE TABLE TS_Out_Exp_B_99_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_99_CC_R 5		CREATE TABLE TS_Out_Exp_B_99_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_99_DC_R 1		CREATE TABLE TS_Out_Exp_B_99_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_99_DC_R 2		CREATE TABLE TS_Out_Exp_B_99_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_99_DC_R 3		CREATE TABLE TS_Out_Exp_B_99_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_99_DC_R4		CREATE TABLE TS_Out_Exp_B_99_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_B_99_DC_R5		CREATE TABLE TS_Out_Exp_B_99_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_79_CC_R1		CREATE TABLE TS_Out_Exp_C1_79_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_79_CC_R2		CREATE TABLE TS_Out_Exp_C1_79_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_79_CC_R3		CREATE TABLE TS_Out_Exp_C1_79_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_79_CC_R4		CREATE TABLE TS_Out_Exp_C1_79_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_C1_79_CC_R5		CREATE TABLE TS_Out_Exp_C1_79_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_79_DC_R1		CREATE TABLE TS_Out_Exp_C1_79_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_79_DC_R2		CREATE TABLE TS_Out_Exp_C1_79_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_79_DC_R3		CREATE TABLE TS_Out_Exp_C1_79_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_79_DC_R4		CREATE TABLE TS_Out_Exp_C1_79_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_79_DC_R5		CREATE TABLE TS_Out_Exp_C1_79_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_84_CC_R1		CREATE TABLE TS_Out_Exp_C1_84_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_84_CC_R2		CREATE TABLE TS_Out_Exp_C1_84_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_84_CC_R3		CREATE TABLE TS_Out_Exp_C1_84_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_84_CC_R4		CREATE TABLE TS_Out_Exp_C1_84_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_84_CC_R5		CREATE TABLE TS_Out_Exp_C1_84_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_84_DC_R1		CREATE TABLE TS_Out_Exp_C1_84_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_84_DC_R2		CREATE TABLE TS_Out_Exp_C1_84_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_C1_84_DC_R3		CREATE TABLE TS_Out_Exp_C1_84_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_84_DC_R4		CREATE TABLE TS_Out_Exp_C1_84_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_84_DC_R5		CREATE TABLE TS_Out_Exp_C1_84_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_89_CC_R1		CREATE TABLE TS_Out_Exp_C1_89_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_89_CC_R2		CREATE TABLE TS_Out_Exp_C1_89_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_89_CC_R3		CREATE TABLE TS_Out_Exp_C1_89_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_89_CC_R4		CREATE TABLE TS_Out_Exp_C1_89_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_89_CC_R5		CREATE TABLE TS_Out_Exp_C1_89_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_89_DC_R1		CREATE TABLE TS_Out_Exp_C1_89_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_89_DC_R2		CREATE TABLE TS_Out_Exp_C1_89_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_89_DC_R3		CREATE TABLE TS_Out_Exp_C1_89_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_89_DC_R4		CREATE TABLE TS_Out_Exp_C1_89_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_89_DC_R5		CREATE TABLE TS_Out_Exp_C1_89_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_C1_94_CC_R1		CREATE TABLE TS_Out_Exp_C1_94_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_94_CC_R2		CREATE TABLE TS_Out_Exp_C1_94_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_94_CC_R3		CREATE TABLE TS_Out_Exp_C1_94_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_94_CC_R4		CREATE TABLE TS_Out_Exp_C1_94_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_94_CC_R5		CREATE TABLE TS_Out_Exp_C1_94_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_94_DC_R1		CREATE TABLE TS_Out_Exp_C1_94_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_94_DC_R2		CREATE TABLE TS_Out_Exp_C1_94_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_94_DC_R3		CREATE TABLE TS_Out_Exp_C1_94_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_94_DC_R4		CREATE TABLE TS_Out_Exp_C1_94_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_94_DC_R5		CREATE TABLE TS_Out_Exp_C1_94_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_99_CC_R1		CREATE TABLE TS_Out_Exp_C1_99_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_99_CC_R2		CREATE TABLE TS_Out_Exp_C1_99_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_99_CC_R3		CREATE TABLE TS_Out_Exp_C1_99_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_C1_99_CC_R4		CREATE TABLE TS_Out_Exp_C1_99_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_99_CC_R5		CREATE TABLE TS_Out_Exp_C1_99_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_99_DC_R1		CREATE TABLE TS_Out_Exp_C1_99_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_99_DC_R2		CREATE TABLE TS_Out_Exp_C1_99_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_99_DC_R3		CREATE TABLE TS_Out_Exp_C1_99_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_99_DC_R4		CREATE TABLE TS_Out_Exp_C1_99_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C1_99_DC_R5		CREATE TABLE TS_Out_Exp_C1_99_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_79_CC_R1		CREATE TABLE TS_Out_Exp_C2_79_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_79_CC_R2		CREATE TABLE TS_Out_Exp_C2_79_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_79_CC_R3		CREATE TABLE TS_Out_Exp_C2_79_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_79_CC_R4		CREATE TABLE TS_Out_Exp_C2_79_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_79_CC_R5		CREATE TABLE TS_Out_Exp_C2_79_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_79_DC_R1		CREATE TABLE TS_Out_Exp_C2_79_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_C2_79_DC_R2		CREATE TABLE TS_Out_Exp_C2_79_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_79_DC_R3		CREATE TABLE TS_Out_Exp_C2_79_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_79_DC_R4		CREATE TABLE TS_Out_Exp_C2_79_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_79_DC_R5		CREATE TABLE TS_Out_Exp_C2_79_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_84_CC_R1		CREATE TABLE TS_Out_Exp_C2_84_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_84_CC_R2		CREATE TABLE TS_Out_Exp_C2_84_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_84_CC_R3		CREATE TABLE TS_Out_Exp_C2_84_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_84_CC_R4		CREATE TABLE TS_Out_Exp_C2_84_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_84_CC_R5		CREATE TABLE TS_Out_Exp_C2_84_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_84_DC_R1		CREATE TABLE TS_Out_Exp_C2_84_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_84_DC_R2		CREATE TABLE TS_Out_Exp_C2_84_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_84_DC_R3		CREATE TABLE TS_Out_Exp_C2_84_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_84_DC_R4		CREATE TABLE TS_Out_Exp_C2_84_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_C2_84_DC_R5		CREATE TABLE TS_Out_Exp_C2_84_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_89_CC_R1		CREATE TABLE TS_Out_Exp_C2_89_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_89_CC_R2		CREATE TABLE TS_Out_Exp_C2_89_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_89_CC_R3		CREATE TABLE TS_Out_Exp_C2_89_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_89_CC_R4		CREATE TABLE TS_Out_Exp_C2_89_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_89_CC_R5		CREATE TABLE TS_Out_Exp_C2_89_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_89_DC_R1		CREATE TABLE TS_Out_Exp_C2_89_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_89_DC_R2		CREATE TABLE TS_Out_Exp_C2_89_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_89_DC_R3		CREATE TABLE TS_Out_Exp_C2_89_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_89_DC_R4		CREATE TABLE TS_Out_Exp_C2_89_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_89_DC_R5		CREATE TABLE TS_Out_Exp_C2_89_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_94_CC_R1		CREATE TABLE TS_Out_Exp_C2_94_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_94_CC_R2		CREATE TABLE TS_Out_Exp_C2_94_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_C2_94_CC_R3		CREATE TABLE TS_Out_Exp_C2_94_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_94_CC_R4		CREATE TABLE TS_Out_Exp_C2_94_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_94_CC_R5		CREATE TABLE TS_Out_Exp_C2_94_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_94_DC_R1		CREATE TABLE TS_Out_Exp_C2_94_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_94_DC_R2		CREATE TABLE TS_Out_Exp_C2_94_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_94_DC_R3		CREATE TABLE TS_Out_Exp_C2_94_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_94_DC_R4		CREATE TABLE TS_Out_Exp_C2_94_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_94_DC_R5		CREATE TABLE TS_Out_Exp_C2_94_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_99_CC_R1		CREATE TABLE TS_Out_Exp_C2_99_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_99_CC_R2		CREATE TABLE TS_Out_Exp_C2_99_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_99_CC_R3		CREATE TABLE TS_Out_Exp_C2_99_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_99_CC_R4		CREATE TABLE TS_Out_Exp_C2_99_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_99_CC_R5		CREATE TABLE TS_Out_Exp_C2_99_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_C2_99_DC_R1		CREATE TABLE TS_Out_Exp_C2_99_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_99_DC_R2		CREATE TABLE TS_Out_Exp_C2_99_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_99_DC_R3		CREATE TABLE TS_Out_Exp_C2_99_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_99_DC_R4		CREATE TABLE TS_Out_Exp_C2_99_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_C2_99_DC_R5		CREATE TABLE TS_Out_Exp_C2_99_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_m_CC_R1		CREATE TABLE TS_Out_Exp_D_m_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_m_CC_R2		CREATE TABLE TS_Out_Exp_D_m_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_m_CC_R3		CREATE TABLE TS_Out_Exp_D_m_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_m_CC_R4		CREATE TABLE TS_Out_Exp_D_m_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_m_CC_R5		CREATE TABLE TS_Out_Exp_D_m_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_m_DC_R1		CREATE TABLE TS_Out_Exp_D_m_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_m_DC_R2		CREATE TABLE TS_Out_Exp_D_m_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_m_DC_R3		CREATE TABLE TS_Out_Exp_D_m_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_D_m_DC_R4		CREATE TABLE TS_Out_Exp_D_m_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_m_DC_R5		CREATE TABLE TS_Out_Exp_D_m_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_s_CC_R1		CREATE TABLE TS_Out_Exp_D_s_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_s_CC_R2		CREATE TABLE TS_Out_Exp_D_s_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_s_CC_R3		CREATE TABLE TS_Out_Exp_D_s_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_s_CC_R4		CREATE TABLE TS_Out_Exp_D_s_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_s_CC_R5		CREATE TABLE TS_Out_Exp_D_s_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_s_DC_R1		CREATE TABLE TS_Out_Exp_D_s_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_s_DC_R2		CREATE TABLE TS_Out_Exp_D_s_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_s_DC_R3		CREATE TABLE TS_Out_Exp_D_s_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_s_DC_R4		CREATE TABLE TS_Out_Exp_D_s_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_s_DC_R5		CREATE TABLE TS_Out_Exp_D_s_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vm_CC_R1		CREATE TABLE TS_Out_Exp_D_vm_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_D_vm_CC_R2		CREATE TABLE TS_Out_Exp_D_vm_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vm_CC_R3		CREATE TABLE TS_Out_Exp_D_vm_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vm_CC_R4		CREATE TABLE TS_Out_Exp_D_vm_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vm_CC_R5		CREATE TABLE TS_Out_Exp_D_vm_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vm_DC_R1		CREATE TABLE TS_Out_Exp_D_vm_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vm_DC_R2		CREATE TABLE TS_Out_Exp_D_vm_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vm_DC_R3		CREATE TABLE TS_Out_Exp_D_vm_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vm_DC_R4		CREATE TABLE TS_Out_Exp_D_vm_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vm_DC_R5		CREATE TABLE TS_Out_Exp_D_vm_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vs_CC_R1		CREATE TABLE TS_Out_Exp_D_vs_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vs_CC_R2		CREATE TABLE TS_Out_Exp_D_vs_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vs_CC_R3		CREATE TABLE TS_Out_Exp_D_vs_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vs_CC_R4		CREATE TABLE TS_Out_Exp_D_vs_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_D_vs_CC_R5		CREATE TABLE TS_Out_Exp_D_vs_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vs_DC_R1		CREATE TABLE TS_Out_Exp_D_vs_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vs_DC_R2		CREATE TABLE TS_Out_Exp_D_vs_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vs_DC_R3		CREATE TABLE TS_Out_Exp_D_vs_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vs_DC_R4		CREATE TABLE TS_Out_Exp_D_vs_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_vs_DC_R5		CREATE TABLE TS_Out_Exp_D_vs_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xm_CC_R1		CREATE TABLE TS_Out_Exp_D_xm_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xm_CC_R2		CREATE TABLE TS_Out_Exp_D_xm_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xm_CC_R3		CREATE TABLE TS_Out_Exp_D_xm_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xm_CC_R4		CREATE TABLE TS_Out_Exp_D_xm_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xm_CC_R5		CREATE TABLE TS_Out_Exp_D_xm_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xm_DC_R1		CREATE TABLE TS_Out_Exp_D_xm_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xm_DC_R2		CREATE TABLE TS_Out_Exp_D_xm_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Name	Type	Schema
TS_Out_Exp_D_xm_DC_R3		CREATE TABLE TS_Out_Exp_D_xm_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xm_DC_R4		CREATE TABLE TS_Out_Exp_D_xm_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xm_DC_R5		CREATE TABLE TS_Out_Exp_D_xm_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xs_CC_R1		CREATE TABLE TS_Out_Exp_D_xs_CC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xs_CC_R2		CREATE TABLE TS_Out_Exp_D_xs_CC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xs_CC_R3		CREATE TABLE TS_Out_Exp_D_xs_CC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xs_CC_R4		CREATE TABLE TS_Out_Exp_D_xs_CC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real

Name	Type	Schema
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xs_CC_R5		CREATE TABLE TS_Out_Exp_D_xs_CC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xs_DC_R1		CREATE TABLE TS_Out_Exp_D_xs_DC_R1 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xs_DC_R2		CREATE TABLE TS_Out_Exp_D_xs_DC_R2 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xs_DC_R3		CREATE TABLE TS_Out_Exp_D_xs_DC_R3 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xs_DC_R4		CREATE TABLE TS_Out_Exp_D_xs_DC_R4 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real
TS_Out_Exp_D_xs_DC_R5		CREATE TABLE TS_Out_Exp_D_xs_DC_R5 ("TimeStamp" real,"Total" integer,"NiO" integer,"ID" text,"timeStamp_rel" real)
TimeStamp	real	"TimeStamp" real
Total	integer	"Total" integer
NiO	integer	"NiO" integer
ID	text	"ID" text
timeStamp_rel	real	"timeStamp_rel" real

Indices (0)

Name	Type	Schema
------	------	--------

Views (0)

Name	Type	Schema
------	------	--------

Triggers (0)

Name	Type	Schema
------	------	--------

B Normalisation Process

DB_Normalizer

February 27, 2026

1 DB Normalizer

1.1 Imports + paths

```
[2]: import re
import sqlite3
from pathlib import Path

# --- If DB files are in the same folder as this notebook, this is enough ---
SOURCE_DB = Path("myExperiments2.db")      # <-- change to your real_
↳filename
TARGET_DB = Path("normalized_Exp_DB.db")   # output filename

print("Working directory:", Path().resolve())
print("SOURCE exists:", SOURCE_DB.exists(), "|", SOURCE_DB)
print("TARGET will be:", TARGET_DB)
```

```
Working directory: C:\Learning\University\Thesis\Model
SOURCE exists: True | myExperiments2.db
TARGET will be: normalized_Exp_DB.db
```

1.2 Helpers: quoting, table listing, PRAGMA

```
[3]: def quote_ident(name: str) -> str:
    """SQLite identifier quoting for names that may contain spaces/special_
    ↳chars."""
    return '"' + name.replace("'", "'") + '"'

def list_tables(conn) -> list[str]:
    return [r[0] for r in conn.execute(
        "SELECT name FROM sqlite_master WHERE type='table' AND name NOT LIKE_
        ↳'sqlite_%';"
    ).fetchall()]

def pragma_table_info(conn, table: str):
    return conn.execute(f"PRAGMA table_info({quote_ident(table)})").fetchall()

def table_columns(conn, table: str) -> list[str]:
```

```
return [r[1] for r in pragma_table_info(conn, table)]
```

1.3 Parsing of repeating run tables

```
[4]: RUN_TABLE_RE = re.compile(
    r'^(?P<prefix>TS_In|TS_Out|MNotes|FNotes)_(?P<expnr>.+)_R(?P<run>\d+)$'
)

def parse_run_table(name: str):
    m = RUN_TABLE_RE.match(name)
    if not m:
        return None
    d = m.groupdict()
    d["run"] = int(d["run"])
    return d
```

1.4 Connect to DBs

```
[5]: # Open source
src = sqlite3.connect(SOURCE_DB)
src.row_factory = sqlite3.Row

# Recreate target cleanly
if TARGET_DB.exists():
    TARGET_DB.unlink()

tgt = sqlite3.connect(TARGET_DB)
tgt.row_factory = sqlite3.Row
tgt.execute("PRAGMA foreign_keys = ON;")

print("Connected. Target recreated.")
```

Connected. Target recreated.

1.5 Create base normalized schema

```
[6]: tgt.executescript("""
CREATE TABLE IF NOT EXISTS Experiment (
    ExperimentID INTEGER PRIMARY KEY AUTOINCREMENT,
    ExpNr         TEXT NOT NULL UNIQUE,

    Availability TEXT,
    "Distribution - Duration" TEXT,
    MTTR          REAL,
    Sigma         REAL,
    "Distribution - Interval" TEXT,
    Mu            REAL,
    Beta          REAL,
```

```

Eta          REAL,
"Interval Time" REAL,
"Repair Time" REAL,
"Brooker active" TEXT,
"Nominal CT" REAL,
"Customer CT" REAL,
"Max CT" REAL,
Rho          REAL
);

CREATE TABLE IF NOT EXISTS Run (
  RunID      INTEGER PRIMARY KEY AUTOINCREMENT,
  ExperimentID INTEGER NOT NULL,
  RunNo      INTEGER NOT NULL,
  UNIQUE(ExperimentID, RunNo),
  FOREIGN KEY (ExperimentID) REFERENCES Experiment(ExperimentID)
);
"""
tgt.commit()
print("Base schema created.")

```

Base schema created.

1.6 Import Exp_Overview into Experiment

```

[7]: tables = list_tables(src)
if "Exp_Overview" not in tables:
    raise RuntimeError("Exp_Overview not found in source DB.")

rows = src.execute("SELECT * FROM Exp_Overview").fetchall()

def get_row_value(r, colname):
    return r[colname] if colname in r.keys() else None

insert_sql = """
INSERT OR IGNORE INTO Experiment(
  ExpNr, Availability, "Distribution - Duration", MTTR, Sigma,
  "Distribution - Interval", Mu, Beta, Eta, "Interval Time",
  "Repair Time", "Brooker active", "Nominal CT", "Customer CT", "Max CT", Rho
) VALUES (
  ?, ?, ?, ?, ?,
  ?, ?, ?, ?, ?,
  ?, ?, ?, ?, ?, ?
);
"""

data = []

```

```

for r in rows:
    data.append((
        get_row_value(r, "ExpNr"),
        get_row_value(r, "Availability"),
        get_row_value(r, "Distribution - Duration"),
        get_row_value(r, "MTTR"),
        get_row_value(r, "Sigma"),
        get_row_value(r, "Distribution - Interval"),
        get_row_value(r, "Mu"),
        get_row_value(r, "Beta"),
        get_row_value(r, "Eta"),
        get_row_value(r, "Interval Time"),
        get_row_value(r, "Repair Time"),
        get_row_value(r, "Brooker active"),
        get_row_value(r, "Nominal CT"),
        get_row_value(r, "Customer CT"),
        get_row_value(r, "Max CT"),
        get_row_value(r, "Rho"),
    ))

tgt.executemany(insert_sql, data)
tgt.commit()

n_exp = tgt.execute("SELECT COUNT(*) AS n FROM Experiment").fetchone()["n"]
print("Experiments inserted:", n_exp)

```

Experiments inserted: 52

1.7 Key helpers: get/create ExperimentID and RunID

```

[8]: def get_experiment_id(conn, expnr: str) -> int:
    row = conn.execute("SELECT ExperimentID FROM Experiment WHERE ExpNr=?",
        ↪(expnr,)).fetchone()
    if row:
        return row["ExperimentID"]
    # If a run exists for an experiment that was not in Exp_Overview, create
    ↪minimal entry.
    conn.execute("INSERT INTO Experiment(ExpNr) VALUES (?)", (expnr,))
    return conn.execute("SELECT last_insert_rowid() AS id").fetchone()["id"]

def get_run_id(conn, experiment_id: int, runno: int) -> int:
    row = conn.execute(
        "SELECT RunID FROM Run WHERE ExperimentID=? AND RunNo=?",
        (experiment_id, runno)
    ).fetchone()
    if row:
        return row["RunID"]

```

```

conn.execute("INSERT INTO Run(ExperimentID, RunNo) VALUES (?,?)",
↳(experiment_id, runno))
return conn.execute("SELECT last_insert_rowid() AS id").fetchone()["id"]

```

1.8 Consolidation utilities

```

[9]: def ensure_consolidated_table(tgt_conn, consolidated_name: str, src_table: str):
    """
    Create consolidated table (if needed) with:
    RunID + all columns of src_table (same names/types).
    """
    cols = pragma_table_info(src, src_table)
    col_defs = []
    for c in cols:
        col_name = c[1]
        col_type = c[2] if c[2] else "TEXT"
        col_defs.append(f"{quote_ident(col_name)} {col_type}")

    ddl = f"""
CREATE TABLE IF NOT EXISTS {quote_ident(consolidated_name)} (
    RunID INTEGER NOT NULL,
    {", ".join(col_defs)},
    FOREIGN KEY (RunID) REFERENCES Run(RunID)
);
    """
    tgt_conn.executescript(ddl)

def import_run_table(src_conn, tgt_conn, src_table: str, consolidated_name:
↳str, run_id: int) -> int:
    cols = table_columns(src_conn, src_table)

    sel_cols = ", ".join(quote_ident(c) for c in cols)
    ins_cols = ", ".join([quote_ident("RunID")] + [quote_ident(c) for c in
↳cols])
    ↳cols])
    placeholders = ", ".join(["?"] * (1 + len(cols)))

    rows = src_conn.execute(f"SELECT {sel_cols} FROM {quote_ident(src_table)}").
    ↳fetchall()
    data = [(run_id, *[r[c] for c in cols]) for r in rows]

    tgt_conn.executemany(
        f"INSERT INTO {quote_ident(consolidated_name)} ({ins_cols}) VALUES
↳({placeholders})",
    ↳data
    )
    return len(rows)

```

1.9 Normalize all repeating run tables

```
[10]: tables = list_tables(src)

run_tables = []
for t in tables:
    p = parse_run_table(t)
    if p:
        p["table"] = t
        run_tables.append(p)

print("Run tables discovered:", len(run_tables))
print("Example:", run_tables[0] if run_tables else None)

counts = {"TS_In": 0, "TS_Out": 0, "MNotes": 0, "FNotes": 0}

for item in run_tables:
    prefix = item["prefix"]
    expnr = item["expnr"]
    runno = item["run"]
    src_table = item["table"]

    exp_id = get_experiment_id(tgt, expnr)
    run_id = get_run_id(tgt, exp_id, runno)

    consolidated = prefix # consolidated table names are TS_In, TS_Out,
    ↪MNotes, FNotes
    ensure_consolidated_table(tgt, consolidated, src_table)
    n = import_run_table(src, tgt, src_table, consolidated, run_id)
    counts[prefix] += n

tgt.commit()

print("Imported row counts:", counts)
print("Runs created:", tgt.execute("SELECT COUNT(*) AS n FROM Run").
    ↪fetchone()["n"])
```

Run tables discovered: 1040

Example: {'prefix': 'TS_In', 'expnr': 'Exp_A_79_DC', 'run': 1, 'table': 'TS_In_Exp_A_79_DC_R1'}

Imported row counts: {'TS_In': 5357046, 'TS_Out': 5306720, 'MNotes': 44285, 'FNotes': 12457}

Runs created: 260

1.10 Copy experiment-level tables

```
[11]: def copy_table(src_conn, tgt_conn, table_name: str) -> bool:
    row = src_conn.execute(
        "SELECT sql FROM sqlite_master WHERE type='table' AND name=?",
        (table_name,)
    ).fetchone()
    if not row or not row[0]:
        print(f"Skipping (no CREATE sql): {table_name}")
        return False

    # Create in target
    tgt_conn.execute(row[0])

    cols = table_columns(src_conn, table_name)
    col_list = ", ".join(quote_ident(c) for c in cols)
    placeholders = ", ".join(["?"] * len(cols))

    rows = src_conn.execute(f"SELECT {col_list} FROM_{
↵quote_ident(table_name)}").fetchall()
    tgt_conn.executemany(
        f"INSERT INTO {quote_ident(table_name)} ({col_list}) VALUES_{
↵({placeholders})",
        [[r[c] for c in cols] for r in rows]
    )
    tgt_conn.commit()
    return True

for tname in ["Exp_Results", "Exp_DetailedResults", "Exp_pValues"]:
    exists = tname in tables
    print("Exists in source:", tname, "->", exists)
    if exists:
        ok = copy_table(src, tgt, tname)
        print("Copied:", tname, "->", ok)
```

```
Exists in source: Exp_Results -> True
Copied: Exp_Results -> True
Exists in source: Exp_DetailedResults -> True
Copied: Exp_DetailedResults -> True
Exists in source: Exp_pValues -> True
Copied: Exp_pValues -> True
```

1.11 Add ExperimentID to copied Exp_* tables

```
[12]: def add_and_fill_experiment_id(conn, table_name: str, expnr_col: str):
    cols = table_columns(conn, table_name)
    if "ExperimentID" not in cols:
```

```

conn.execute(f"ALTER TABLE {quote_ident(table_name)} ADD COLUMN_
↳ExperimentID INTEGER;")

conn.execute(f"""
UPDATE {quote_ident(table_name)}
SET ExperimentID = (
SELECT e.ExperimentID
FROM Experiment e
WHERE e.ExpNr = {quote_ident(table_name)}.{quote_ident(expnr_col)}
)
WHERE ExperimentID IS NULL;
""")
conn.commit()

for tname in ["Exp_Resuts", "Exp_DetailedResuts", "Exp_pValues"]:
if tname not in list_tables(tgt):
continue

cols = table_columns(tgt, tname)
print("\n", tname, "columns:", cols)

# Heuristic: most likely column is ExpNr. If not, you will see it in the_
↳printed list.
if "ExpNr" in cols:
add_and_fill_experiment_id(tgt, tname, expnr_col="ExpNr")
filled = tgt.execute(
f"SELECT COUNT(*) AS n FROM {quote_ident(tname)} WHERE ExperimentID_
↳IS NOT NULL"
).fetchone()["n"]
total = tgt.execute(f"SELECT COUNT(*) AS n FROM {quote_ident(tname)}").
↳fetchone()["n"]
print(f"{tname}: ExperimentID filled for {filled}/{total} rows (via_
↳ExpNr).")
else:
print(f"{tname}: No 'ExpNr' column found. If another column stores_
↳experiment name, tell me its name.")

```

```

Exp_pValues columns: ['', 'Exp_A_84_DC', 'Exp_A_89_DC', 'Exp_A_94_DC',
'Exp_A_99_DC', 'Exp_A_79_CC', 'Exp_A_84_CC', 'Exp_A_89_CC', 'Exp_A_94_CC',
'Exp_A_99_CC', 'Exp_B_79_DC', 'Exp_B_84_DC', 'Exp_B_89_DC', 'Exp_B_94_DC',
'Exp_B_99_DC', 'Exp_B_79_CC', 'Exp_B_84_CC', 'Exp_B_89_CC', 'Exp_B_94_CC',
'Exp_B_99_CC', 'Exp_C1_79_DC', 'Exp_C1_84_DC', 'Exp_C1_89_DC', 'Exp_C1_94_DC',
'Exp_C1_99_DC', 'Exp_C1_79_CC', 'Exp_C1_84_CC', 'Exp_C1_89_CC', 'Exp_C1_94_CC',
'Exp_C1_99_CC', 'Exp_C2_79_DC', 'Exp_C2_84_DC', 'Exp_C2_89_DC', 'Exp_C2_94_DC',
'Exp_C2_99_DC', 'Exp_C2_79_CC', 'Exp_C2_84_CC', 'Exp_C2_89_CC', 'Exp_C2_94_CC',
'Exp_C2_99_CC', 'Exp_D_xs_DC', 'Exp_D_vs_DC', 'Exp_D_s_DC', 'Exp_D_m_DC',

```

```
'Exp_D_vm_DC', 'Exp_D_xm_DC', 'Exp_D_xs_CC', 'Exp_D_vs_CC', 'Exp_D_s_CC',
'Exp_D_m_CC', 'Exp_D_vm_CC', 'Exp_D_xm_CC']
Exp_pValues: No 'ExpNr' column found. If another column stores experiment name,
tell me its name.
```

1.12 Indexes

```
[13]: tgt.executescript("""
CREATE INDEX IF NOT EXISTS idx_experiment_expnr ON Experiment(ExpNr);
CREATE INDEX IF NOT EXISTS idx_run_exp_runno    ON Run(ExperimentID, RunNo);

CREATE INDEX IF NOT EXISTS idx_tsin_run    ON TS_In(RunID);
CREATE INDEX IF NOT EXISTS idx_tsout_run   ON TS_Out(RunID);
CREATE INDEX IF NOT EXISTS idx_mnotes_run  ON MNotes(RunID);
CREATE INDEX IF NOT EXISTS idx_fnotes_run  ON FNotes(RunID);
""")
tgt.commit()
print("Indexes created.")
```

Indexes created.

1.13 Validation checks

```
[14]: print("Experiments:", tgt.execute("SELECT COUNT(*) AS n FROM Experiment").
      ↪fetchone()["n"])
print("Runs:",          tgt.execute("SELECT COUNT(*) AS n FROM Run").
      ↪fetchone()["n"])

for t in ["TS_In", "TS_Out", "MNotes", "FNotes"]:
    if t in list_tables(tgt):
        n = tgt.execute(f"SELECT COUNT(*) AS n FROM {quote_ident(t)}").
        ↪fetchone()["n"]
        print(f"{t} rows:", n)
    else:
        print(f"{t} not present in target.")

for t in ["Exp_Resuts", "Exp_DetailedResuts", "Exp_pValues"]:
    if t in list_tables(tgt):
        n = tgt.execute(f"SELECT COUNT(*) AS n FROM {quote_ident(t)}").
        ↪fetchone()["n"]
        print(f"{t} rows:", n)

# Show a few runs with experiment name
rows = tgt.execute("""
SELECT r.RunID, e.ExpNr, r.RunNo
FROM Run r
JOIN Experiment e ON e.ExperimentID = r.ExperimentID
ORDER BY e.ExpNr, r.RunNo
```

```
LIMIT 10;
""").fetchall()

print("\nFirst runs:")
for r in rows:
    print(dict(r))
```

```
Experiments: 52
Runs: 260
TS_In rows: 5357046
TS_Out rows: 5306720
MNotes rows: 44285
FNotes rows: 12457
Exp_pValues rows: 51
```

First runs:

```
{'RunID': 26, 'ExpNr': 'Exp_A_79_CC', 'RunNo': 1}
{'RunID': 27, 'ExpNr': 'Exp_A_79_CC', 'RunNo': 2}
{'RunID': 28, 'ExpNr': 'Exp_A_79_CC', 'RunNo': 3}
{'RunID': 29, 'ExpNr': 'Exp_A_79_CC', 'RunNo': 4}
{'RunID': 30, 'ExpNr': 'Exp_A_79_CC', 'RunNo': 5}
{'RunID': 1, 'ExpNr': 'Exp_A_79_DC', 'RunNo': 1}
{'RunID': 2, 'ExpNr': 'Exp_A_79_DC', 'RunNo': 2}
{'RunID': 3, 'ExpNr': 'Exp_A_79_DC', 'RunNo': 3}
{'RunID': 4, 'ExpNr': 'Exp_A_79_DC', 'RunNo': 4}
{'RunID': 5, 'ExpNr': 'Exp_A_79_DC', 'RunNo': 5}
```

1.14 Proper cleanup

```
[15]: tgt.commit()
src.close()
tgt.close()
print("Connections closed cleanly.")
```

Connections closed cleanly.

C Enrichment Process

EnrichDB

February 27, 2026

0.1 Imports and Connections

```
[1]: import re
import sqlite3
from pathlib import Path
import pandas as pd
import numpy as np
import json

# --- If DB files are in the same folder as this notebook, this is enough ---
TARGET_DB = Path("normalized_Exp_DB.db")      # output filename

print("Working directory:", Path().resolve())
print("TARGET will be:", TARGET_DB)
```

Working directory: C:\Learning\University\Thesis\Model
TARGET will be: normalized_Exp_DB.db

0.2 Utility

```
[2]: def calculate_basic_metrics(df: pd.DataFrame) -> dict:
    """
    Compute summary metrics from structured OEE dataframe.

    Expected columns:
    [ Run, TimeStamp, Total, Total_Cumul,
      NiO, NiO_Cumul, DeltaT, DeltaT_Cumul, CT_tot, CT_act]

    Returns:
    dict with keys:
    NettoBetriebsZeit, MTTR, Total_Failtime, NrOfFails, CT_act_stats,
    CT_tot_stats, NiO, Output_tot, Total_time, PBZ, Parts_per_Cycle
    """
    if df.empty:
        return {}

    # -----
    # Helper: get_statistics
```

```

# -----
def get_statistics(series: pd.Series, parts_per_cycle: float) -> dict:
    """
    Return basic statistics, bounds, and deviation for a numeric column,
    normalized by parts_per_cycle.
    """
    s = pd.to_numeric(series, errors="coerce").dropna()
    if s.empty:
        return {}

    # Normalize per part
    if parts_per_cycle and parts_per_cycle != 0:
        s = s / parts_per_cycle

    q1, q2, q3 = np.percentile(s, [25, 50, 75])
    iqr = q3 - q1
    lb = max(0, q1 - 1.5 * iqr)
    ub = q3 + 1.5 * iqr

    # Determine mode
    mode_vals = s.mode(dropna=True)

    if mode_vals.empty:
        modus = q2
    else:
        non_zero_modes = mode_vals[mode_vals != 0]
        if not non_zero_modes.empty:
            modus = non_zero_modes.iloc[0]
        else:
            modus = q2

    # Additional safeguard
    if modus < q1:
        modus = q2

    stats = {
        "min": round(float(s.min()), 1),
        "Q1": round(float(q1), 1),
        "Q2": round(float(q2), 1),
        "Q3": round(float(q3), 1),
        "max": round(float(s.max()), 1),
        "avg": round(float(s.mean()), 1),
        "std": round(float(s.std(ddof=1)), 4), # sample standard deviation
        "IQR": round(float(iqr), 1),
        "LB": round(float(lb), 1),
        "UB": round(float(ub), 1),
        "Modus": round(float(modus), 1)
    }

```

```

    }
    return stats

results = {}

# 1. Parts per cycle → mean Output_Total rounded to nearest integer
results["Parts_per_Cycle"] = int(round(df["Total"].mean(), 0))

# 4. PBZ → max(DeltaT_Cumul)
results["PBZ"] = float(df["DeltaT_Cumul"].max())

# 5. Total_time = PBZ + Pauses_tot + Unplanned_tot
results["Total_time"] = results["PBZ"]

# 6. Output_tot = max(Total_Cumul)
results["Output_tot"] = int(df["Total_Cumul"].max())

# 7. NiO = max(NiO_Cumul)
results["NiO"] = int(df["NiO_Cumul"].max())

# 8. Get statistics CT_tot and CT_actuel
results["CT_tot_stats"] = get_statistics(df["CT_tot"],
↳results["Parts_per_Cycle"])
stats = get_statistics(df["CT_act"], results["Parts_per_Cycle"])
results["CT_act_stats"] = stats

# -----
# Failure time detection & replacement
# -----
df = df.copy()
df["Fail_time"] = 0.0

parts_per_cycle = results["Parts_per_Cycle"]

if stats:
    myMod = stats["Modus"]
    q3 = stats["Q3"]
    thr = q3 * parts_per_cycle # threshold for failures

    mask_fail = df["CT_act"] > thr
    df.loc[mask_fail, "Fail_time"] = df.loc[mask_fail, "CT_act"] - myMod *
↳parts_per_cycle
    df.loc[mask_fail, "CT_act"] = myMod * parts_per_cycle # replace with
↳nominal cycle

# -----

```

```

# Failure summary
# -----
fail_series = df["Fail_time"]
results["NrOfFails"] = int((fail_series > 0).sum())
results["Total_Failtime"] = float(fail_series.sum())
results["MTTR"] = (
    results["Total_Failtime"] / results["NrOfFails"]
    if results["NrOfFails"] > 0
    else 0.0
)
results["NettoBetriebsZeit"] = results["PBZ"] -
↳results["Total_Failtime"]

return results

```

```

[3]: def OEE_Calc(OEE_Data: dict) -> dict:
      """Compute full OEE dictionary from pre-aggregated OEE_Data."""

      # --- Base values ---
      PBZ = OEE_Data.get("PBZ", 0)
      Total_time = OEE_Data.get("Total_time", 0)
      NettoBetriebsZeit = OEE_Data.get("NettoBetriebsZeit", 0)
      Output_total = OEE_Data.get("Output_tot", 0)
      NiO = OEE_Data.get("NiO", 0)
      Parts_per_Cycle = OEE_Data.get("Parts_per_Cycle", 1)
      CT_stats = OEE_Data.get("CT_act_stats", {})
      Q2 = CT_stats.get("Q2", 0)
      Modus = CT_stats.get("Modus", 0)
      Avg = CT_stats.get("avg", 0)

      # --- 1. Utility ---
      Utility = PBZ / Total_time if Total_time else 0

      # --- 2. Availability ---
      Availability = NettoBetriebsZeit / PBZ if PBZ else 0

      # --- 3. Performance (Modus-based) ---
      NOR = (Output_total * Q2 * Parts_per_Cycle) / NettoBetriebsZeit if
↳NettoBetriebsZeit else 0
      SpR = Modus / Q2 if Modus else 0
      Performance = NOR * SpR

      # --- 5. Quality ---
      Quality = 1 - (NiO / Output_total) if Output_total else 0

      # --- 6. OEE results ---
      OEE = Availability * Performance * Quality

```

```

# --- 7. Return dictionary ---
return {
    # Base factors
    "Utility_%": round(Utility * 100, 1),
    "Availability_%": round(Availability * 100, 1),
    "Quality_%": round(Quality * 100, 1),

    # Performance (Modus-based)
    "Net_Operating_Rate_%": round(NOR*100, 4),
    "Speed_rate_%": round(SpR*100, 4),
    "Performance_%": round(Performance * 100, 1),

    # Overall OEE
    "OEE_%": round(OEE * 100, 1)
}

```

0.3 Connect and Create OEE Tables

```

[4]: tgt = sqlite3.connect(TARGET_DB)
tgt.row_factory = sqlite3.Row

print("Connected. Target Connected.")

tgt.executescript("""
CREATE TABLE IF NOT EXISTS OEE_In (
    Run INTEGER,
    TimeStamp REAL,
    Total INTEGER,
    Total_Cumul INTEGER,
    NiO INTEGER,
    NiO_Cumul INTEGER,
    DeltaT REAL,
    DeltaT_Cumul REAL,
    CT_tot REAL,
    CT_act REAL
);

CREATE TABLE IF NOT EXISTS OEE_Out (
    Run INTEGER,
    TimeStamp REAL,
    Total INTEGER,
    Total_Cumul INTEGER,
    NiO INTEGER,
    NiO_Cumul INTEGER,
    DeltaT REAL,
    DeltaT_Cumul REAL,

```

```

        CT_tot REAL,
        CT_act REAL
    );
    """

tgt.commit()

print("OEE tables created.")

```

Connected. Target Connected.
OEE tables created.

0.4 OEE In

0.4.1 Create Metrics Table

```

[7]: tgt.execute("""
CREATE TABLE IF NOT EXISTS OEE_In_WindowMetrics (
    Run INTEGER NOT NULL,
    EndTimeStamp REAL NOT NULL,
    EndRow INTEGER NOT NULL,
    WindowEvents INTEGER NOT NULL,
    StepEvents INTEGER NOT NULL,
    BaseMetricsJSON TEXT NOT NULL,
    OEEMetricsJSON TEXT NOT NULL,
    EndBufferLevel INTEGER NOT NULL,
    PRIMARY KEY (Run, EndRow)
);
""")
tgt.commit()

```

0.4.2 Load TS_in into Python Dataframe / RunID

```

[8]: # Optional but recommended: clear table before rebuilding
tgt.execute("DELETE FROM OEE_In;")
tgt.commit()

# Get all distinct runs
run_ids = [r["RunID"] for r in tgt.execute(
    "SELECT DISTINCT RunID FROM TS_In ORDER BY RunID"
).fetchall()]

print("Runs detected:", run_ids)

for run_id in run_ids:

    # Load only required base columns
    df = pd.read_sql_query(f"""

```

```

SELECT
    RunID AS Run,
    TimeStamp,
    Total,
    NiO
FROM TS_In
WHERE RunID = {run_id}
ORDER BY TimeStamp
""", tgt)

    # Copy cumulative values
df["Total_Cumul"] = df["Total"]
df["NiO_Cumul"]   = df["NiO"]

# Unwind cumulative into increments
df["Total"] = df["Total_Cumul"].diff().fillna(df["Total_Cumul"])
df["NiO"]   = df["NiO_Cumul"].diff().fillna(df["NiO_Cumul"])

# Safety: eliminate possible negative artifacts
df["Total"] = df["Total"].clip(lower=0)
df["NiO"]   = df["NiO"].clip(lower=0)

# --- DeltaT ---
df["DeltaT"] = df["TimeStamp"].diff()

# Median of DeltaT excluding first NaN and excluding non-positive deltas
valid_dt = df["DeltaT"].iloc[1:]
valid_dt = valid_dt[valid_dt > 0]

if len(valid_dt) == 0:
    # Fallback if run has only 1 row or timestamps are not increasing
    dt0 = 0.0
else:
    dt0 = float(valid_dt.median())

df.loc[0, "DeltaT"] = dt0

# (Optional but consistent) cumulative time
df["DeltaT_Cumul"] = df["DeltaT"].cumsum()

# --- Cycle Times ---
df["CT_act"] = df["DeltaT"]

# Avoid division by zero
df["CT_tot"] = np.where(
    df["Total_Cumul"] > 0,
    df["DeltaT_Cumul"] / df["Total_Cumul"],

```

```

    0.0
)

# Append to OEE_In
df.to_sql("OEE_In", tgt, if_exists="append", index=False)

print(f"Run {run_id} appended. Rows: {len(df)}")

tgt.commit()

print("Step 2 completed.")

```

Runs detected: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260]

```

Run 1 appended. Rows: 20233
Run 2 appended. Rows: 20290
Run 3 appended. Rows: 20079
Run 4 appended. Rows: 20044
Run 5 appended. Rows: 19455
Run 6 appended. Rows: 20295
Run 7 appended. Rows: 20829
Run 8 appended. Rows: 20096
Run 9 appended. Rows: 20048
Run 10 appended. Rows: 19505
Run 11 appended. Rows: 20296
Run 12 appended. Rows: 20907
Run 13 appended. Rows: 20102
Run 14 appended. Rows: 20048
Run 15 appended. Rows: 19513
Run 16 appended. Rows: 20296
Run 17 appended. Rows: 20923
Run 18 appended. Rows: 20106
Run 19 appended. Rows: 20050
Run 20 appended. Rows: 19522

```

Run 21 appended. Rows: 20296
Run 22 appended. Rows: 20923
Run 23 appended. Rows: 20106
Run 24 appended. Rows: 20053
Run 25 appended. Rows: 19524
Run 26 appended. Rows: 20770
Run 27 appended. Rows: 20505
Run 28 appended. Rows: 20655
Run 29 appended. Rows: 20600
Run 30 appended. Rows: 20216
Run 31 appended. Rows: 21172
Run 32 appended. Rows: 21340
Run 33 appended. Rows: 20976
Run 34 appended. Rows: 20907
Run 35 appended. Rows: 20354
Run 36 appended. Rows: 21210
Run 37 appended. Rows: 21799
Run 38 appended. Rows: 20991
Run 39 appended. Rows: 20909
Run 40 appended. Rows: 20376
Run 41 appended. Rows: 21210
Run 42 appended. Rows: 21821
Run 43 appended. Rows: 20996
Run 44 appended. Rows: 20910
Run 45 appended. Rows: 20384
Run 46 appended. Rows: 21210
Run 47 appended. Rows: 21833
Run 48 appended. Rows: 20998
Run 49 appended. Rows: 20911
Run 50 appended. Rows: 20389
Run 51 appended. Rows: 20540
Run 52 appended. Rows: 20001
Run 53 appended. Rows: 20655
Run 54 appended. Rows: 20160
Run 55 appended. Rows: 20367
Run 56 appended. Rows: 20604
Run 57 appended. Rows: 20071
Run 58 appended. Rows: 20710
Run 59 appended. Rows: 20167
Run 60 appended. Rows: 20451
Run 61 appended. Rows: 20604
Run 62 appended. Rows: 20071
Run 63 appended. Rows: 20710
Run 64 appended. Rows: 20169
Run 65 appended. Rows: 20451
Run 66 appended. Rows: 20604
Run 67 appended. Rows: 20071
Run 68 appended. Rows: 20710

Run 69 appended. Rows: 20169
Run 70 appended. Rows: 20451
Run 71 appended. Rows: 20604
Run 72 appended. Rows: 20071
Run 73 appended. Rows: 20710
Run 74 appended. Rows: 20169
Run 75 appended. Rows: 20451
Run 76 appended. Rows: 20862
Run 77 appended. Rows: 20551
Run 78 appended. Rows: 20655
Run 79 appended. Rows: 20600
Run 80 appended. Rows: 20607
Run 81 appended. Rows: 21680
Run 82 appended. Rows: 21785
Run 83 appended. Rows: 21971
Run 84 appended. Rows: 21929
Run 85 appended. Rows: 21871
Run 86 appended. Rows: 21733
Run 87 appended. Rows: 21858
Run 88 appended. Rows: 22288
Run 89 appended. Rows: 22062
Run 90 appended. Rows: 21925
Run 91 appended. Rows: 21733
Run 92 appended. Rows: 21858
Run 93 appended. Rows: 22288
Run 94 appended. Rows: 22070
Run 95 appended. Rows: 21928
Run 96 appended. Rows: 21733
Run 97 appended. Rows: 21858
Run 98 appended. Rows: 22288
Run 99 appended. Rows: 22072
Run 100 appended. Rows: 21928
Run 101 appended. Rows: 18306
Run 102 appended. Rows: 18380
Run 103 appended. Rows: 18456
Run 104 appended. Rows: 18549
Run 105 appended. Rows: 18304
Run 106 appended. Rows: 18306
Run 107 appended. Rows: 18380
Run 108 appended. Rows: 18456
Run 109 appended. Rows: 18549
Run 110 appended. Rows: 18304
Run 111 appended. Rows: 18306
Run 112 appended. Rows: 18380
Run 113 appended. Rows: 18456
Run 114 appended. Rows: 18549
Run 115 appended. Rows: 18304
Run 116 appended. Rows: 18306

Run 117 appended. Rows: 18380
Run 118 appended. Rows: 18456
Run 119 appended. Rows: 18549
Run 120 appended. Rows: 18304
Run 121 appended. Rows: 18306
Run 122 appended. Rows: 18380
Run 123 appended. Rows: 18456
Run 124 appended. Rows: 18549
Run 125 appended. Rows: 18304
Run 126 appended. Rows: 19359
Run 127 appended. Rows: 19306
Run 128 appended. Rows: 19430
Run 129 appended. Rows: 19372
Run 130 appended. Rows: 19276
Run 131 appended. Rows: 19359
Run 132 appended. Rows: 19306
Run 133 appended. Rows: 19430
Run 134 appended. Rows: 19379
Run 135 appended. Rows: 19277
Run 136 appended. Rows: 19359
Run 137 appended. Rows: 19306
Run 138 appended. Rows: 19430
Run 139 appended. Rows: 19379
Run 140 appended. Rows: 19277
Run 141 appended. Rows: 19359
Run 142 appended. Rows: 19306
Run 143 appended. Rows: 19430
Run 144 appended. Rows: 19379
Run 145 appended. Rows: 19277
Run 146 appended. Rows: 19359
Run 147 appended. Rows: 19306
Run 148 appended. Rows: 19430
Run 149 appended. Rows: 19379
Run 150 appended. Rows: 19277
Run 151 appended. Rows: 20664
Run 152 appended. Rows: 20551
Run 153 appended. Rows: 20655
Run 154 appended. Rows: 20600
Run 155 appended. Rows: 20607
Run 156 appended. Rows: 20721
Run 157 appended. Rows: 21250
Run 158 appended. Rows: 20963
Run 159 appended. Rows: 20808
Run 160 appended. Rows: 20810
Run 161 appended. Rows: 20721
Run 162 appended. Rows: 21299
Run 163 appended. Rows: 20963
Run 164 appended. Rows: 20811

Run 165 appended. Rows: 20817
Run 166 appended. Rows: 20721
Run 167 appended. Rows: 21299
Run 168 appended. Rows: 20963
Run 169 appended. Rows: 20811
Run 170 appended. Rows: 20817
Run 171 appended. Rows: 20721
Run 172 appended. Rows: 21299
Run 173 appended. Rows: 20963
Run 174 appended. Rows: 20811
Run 175 appended. Rows: 20817
Run 176 appended. Rows: 20862
Run 177 appended. Rows: 20551
Run 178 appended. Rows: 20655
Run 179 appended. Rows: 20600
Run 180 appended. Rows: 20607
Run 181 appended. Rows: 22178
Run 182 appended. Rows: 21673
Run 183 appended. Rows: 21971
Run 184 appended. Rows: 21890
Run 185 appended. Rows: 21917
Run 186 appended. Rows: 22483
Run 187 appended. Rows: 21878
Run 188 appended. Rows: 22729
Run 189 appended. Rows: 21935
Run 190 appended. Rows: 22248
Run 191 appended. Rows: 22492
Run 192 appended. Rows: 21878
Run 193 appended. Rows: 22729
Run 194 appended. Rows: 21943
Run 195 appended. Rows: 22278
Run 196 appended. Rows: 22492
Run 197 appended. Rows: 21878
Run 198 appended. Rows: 22729
Run 199 appended. Rows: 21945
Run 200 appended. Rows: 22278
Run 201 appended. Rows: 20021
Run 202 appended. Rows: 19728
Run 203 appended. Rows: 20109
Run 204 appended. Rows: 19706
Run 205 appended. Rows: 19943
Run 206 appended. Rows: 20348
Run 207 appended. Rows: 19739
Run 208 appended. Rows: 20371
Run 209 appended. Rows: 20216
Run 210 appended. Rows: 19864
Run 211 appended. Rows: 20456
Run 212 appended. Rows: 20028

Run 213 appended. Rows: 20425
Run 214 appended. Rows: 20085
Run 215 appended. Rows: 20069
Run 216 appended. Rows: 20817
Run 217 appended. Rows: 20184
Run 218 appended. Rows: 21065
Run 219 appended. Rows: 20530
Run 220 appended. Rows: 20613
Run 221 appended. Rows: 20728
Run 222 appended. Rows: 20392
Run 223 appended. Rows: 20935
Run 224 appended. Rows: 20604
Run 225 appended. Rows: 20766
Run 226 appended. Rows: 20963
Run 227 appended. Rows: 20659
Run 228 appended. Rows: 21130
Run 229 appended. Rows: 20858
Run 230 appended. Rows: 20831
Run 231 appended. Rows: 21484
Run 232 appended. Rows: 21274
Run 233 appended. Rows: 21820
Run 234 appended. Rows: 21877
Run 235 appended. Rows: 21587
Run 236 appended. Rows: 21872
Run 237 appended. Rows: 21498
Run 238 appended. Rows: 21958
Run 239 appended. Rows: 21788
Run 240 appended. Rows: 21741
Run 241 appended. Rows: 21739
Run 242 appended. Rows: 21687
Run 243 appended. Rows: 21971
Run 244 appended. Rows: 21885
Run 245 appended. Rows: 21761
Run 246 appended. Rows: 21681
Run 247 appended. Rows: 21785
Run 248 appended. Rows: 21971
Run 249 appended. Rows: 21929
Run 250 appended. Rows: 21917
Run 251 appended. Rows: 21786
Run 252 appended. Rows: 21785
Run 253 appended. Rows: 21971
Run 254 appended. Rows: 21929
Run 255 appended. Rows: 21901
Run 256 appended. Rows: 21806
Run 257 appended. Rows: 21785
Run 258 appended. Rows: 21971
Run 259 appended. Rows: 21929
Run 260 appended. Rows: 21917

Step 2 completed.

0.4.3 Fill the metrics table

```
[10]: WINDOW = 120
STEP = 10

tgt.execute("DELETE FROM OEE_In_WindowMetrics;")
tgt.commit()

rows_to_insert = []

run_ids = [r["Run"] for r in tgt.execute(
    "SELECT DISTINCT Run FROM OEE_In ORDER BY Run"
).fetchall()]

for run_id in run_ids:
    df_run = pd.read_sql_query("""
        SELECT
            o.Run,
            o.TimeStamp,
            o.Total, o.Total_Cumul,
            o.NiO, o.NiO_Cumul,
            o.DeltaT, o.DeltaT_Cumul,
            o.CT_tot, o.CT_act,
            t.Buffer_Level
        FROM OEE_In o
        LEFT JOIN TS_In t
            ON t.RunID = o.Run AND t.TimeStamp = o.TimeStamp
        WHERE o.Run = ?
        ORDER BY o.TimeStamp
    """, tgt, params=(run_id,))

    n = len(df_run)
    if n < WINDOW:
        continue

    for end_idx in range(WINDOW - 1, n, STEP):
        start_idx = end_idx - WINDOW + 1
        df_window = df_run.iloc[start_idx:end_idx + 1].copy()

        base_metrics = calculate_basic_metrics(df_window.
        ←drop(columns=["Buffer_Level"], errors="ignore"))
        if not base_metrics:
            continue

        oee_metrics = OEE_Calc(base_metrics)
```

```

    if not oee_metrics:
        continue

    end_buf = df_run.iloc[end_idx]["Buffer_Level"]
    end_buf = None if pd.isna(end_buf) else int(end_buf)

    rows_to_insert.append((
        int(run_id),
        float(df_run.iloc[end_idx]["TimeStamp"]),
        int(end_idx),
        int(WINDOW),
        int(STEP),
        end_buf,
        json.dumps(base_metrics, ensure_ascii=False),
        json.dumps(oee_metrics, ensure_ascii=False),
    ))

    print("Next RunId:", run_id, " Total rows queued:", len(rows_to_insert))

tgt.executemany("""
    INSERT OR REPLACE INTO OEE_In_WindowMetrics
    (Run, EndTimeStamp, EndRow, WindowEvents, StepEvents, EndBufferLevel,
↵BaseMetricsJSON, OEEMetricsJSON)
    VALUES (?, ?, ?, ?, ?, ?, ?, ?)
""", rows_to_insert)

tgt.commit()
print("Inserted rows:", len(rows_to_insert))

```

```

Next RunId: 1 Total rows queued: 2012
Next RunId: 2 Total rows queued: 4030
Next RunId: 3 Total rows queued: 6026
Next RunId: 4 Total rows queued: 8019
Next RunId: 5 Total rows queued: 9953
Next RunId: 6 Total rows queued: 11971
Next RunId: 7 Total rows queued: 14042
Next RunId: 8 Total rows queued: 16040
Next RunId: 9 Total rows queued: 18033
Next RunId: 10 Total rows queued: 19972
Next RunId: 11 Total rows queued: 21990
Next RunId: 12 Total rows queued: 24069
Next RunId: 13 Total rows queued: 26068
Next RunId: 14 Total rows queued: 28061
Next RunId: 15 Total rows queued: 30001
Next RunId: 16 Total rows queued: 32019
Next RunId: 17 Total rows queued: 34100
Next RunId: 18 Total rows queued: 36099
Next RunId: 19 Total rows queued: 38093

```

Next RunId: 20 Total rows queued: 40034
Next RunId: 21 Total rows queued: 42052
Next RunId: 22 Total rows queued: 44133
Next RunId: 23 Total rows queued: 46132
Next RunId: 24 Total rows queued: 48126
Next RunId: 25 Total rows queued: 50067
Next RunId: 26 Total rows queued: 52133
Next RunId: 27 Total rows queued: 54172
Next RunId: 28 Total rows queued: 56226
Next RunId: 29 Total rows queued: 58275
Next RunId: 30 Total rows queued: 60285
Next RunId: 31 Total rows queued: 62391
Next RunId: 32 Total rows queued: 64514
Next RunId: 33 Total rows queued: 66600
Next RunId: 34 Total rows queued: 68679
Next RunId: 35 Total rows queued: 70703
Next RunId: 36 Total rows queued: 72813
Next RunId: 37 Total rows queued: 74981
Next RunId: 38 Total rows queued: 77069
Next RunId: 39 Total rows queued: 79148
Next RunId: 40 Total rows queued: 81174
Next RunId: 41 Total rows queued: 83284
Next RunId: 42 Total rows queued: 85455
Next RunId: 43 Total rows queued: 87543
Next RunId: 44 Total rows queued: 89623
Next RunId: 45 Total rows queued: 91650
Next RunId: 46 Total rows queued: 93760
Next RunId: 47 Total rows queued: 95932
Next RunId: 48 Total rows queued: 98020
Next RunId: 49 Total rows queued: 100100
Next RunId: 50 Total rows queued: 102127
Next RunId: 51 Total rows queued: 104170
Next RunId: 52 Total rows queued: 106159
Next RunId: 53 Total rows queued: 108213
Next RunId: 54 Total rows queued: 110218
Next RunId: 55 Total rows queued: 112243
Next RunId: 56 Total rows queued: 114292
Next RunId: 57 Total rows queued: 116288
Next RunId: 58 Total rows queued: 118348
Next RunId: 59 Total rows queued: 120353
Next RunId: 60 Total rows queued: 122387
Next RunId: 61 Total rows queued: 124436
Next RunId: 62 Total rows queued: 126432
Next RunId: 63 Total rows queued: 128492
Next RunId: 64 Total rows queued: 130497
Next RunId: 65 Total rows queued: 132531
Next RunId: 66 Total rows queued: 134580
Next RunId: 67 Total rows queued: 136576

Next RunId: 68 Total rows queued: 138636
Next RunId: 69 Total rows queued: 140641
Next RunId: 70 Total rows queued: 142675
Next RunId: 71 Total rows queued: 144724
Next RunId: 72 Total rows queued: 146720
Next RunId: 73 Total rows queued: 148780
Next RunId: 74 Total rows queued: 150785
Next RunId: 75 Total rows queued: 152819
Next RunId: 76 Total rows queued: 154894
Next RunId: 77 Total rows queued: 156938
Next RunId: 78 Total rows queued: 158992
Next RunId: 79 Total rows queued: 161041
Next RunId: 80 Total rows queued: 163090
Next RunId: 81 Total rows queued: 165247
Next RunId: 82 Total rows queued: 167414
Next RunId: 83 Total rows queued: 169600
Next RunId: 84 Total rows queued: 171781
Next RunId: 85 Total rows queued: 173957
Next RunId: 86 Total rows queued: 176119
Next RunId: 87 Total rows queued: 178293
Next RunId: 88 Total rows queued: 180510
Next RunId: 89 Total rows queued: 182705
Next RunId: 90 Total rows queued: 184886
Next RunId: 91 Total rows queued: 187048
Next RunId: 92 Total rows queued: 189222
Next RunId: 93 Total rows queued: 191439
Next RunId: 94 Total rows queued: 193635
Next RunId: 95 Total rows queued: 195816
Next RunId: 96 Total rows queued: 197978
Next RunId: 97 Total rows queued: 200152
Next RunId: 98 Total rows queued: 202369
Next RunId: 99 Total rows queued: 204565
Next RunId: 100 Total rows queued: 206746
Next RunId: 101 Total rows queued: 208565
Next RunId: 102 Total rows queued: 210392
Next RunId: 103 Total rows queued: 212226
Next RunId: 104 Total rows queued: 214069
Next RunId: 105 Total rows queued: 215888
Next RunId: 106 Total rows queued: 217707
Next RunId: 107 Total rows queued: 219534
Next RunId: 108 Total rows queued: 221368
Next RunId: 109 Total rows queued: 223211
Next RunId: 110 Total rows queued: 225030
Next RunId: 111 Total rows queued: 226849
Next RunId: 112 Total rows queued: 228676
Next RunId: 113 Total rows queued: 230510
Next RunId: 114 Total rows queued: 232353
Next RunId: 115 Total rows queued: 234172

Next RunId: 116 Total rows queued: 235991
Next RunId: 117 Total rows queued: 237818
Next RunId: 118 Total rows queued: 239652
Next RunId: 119 Total rows queued: 241495
Next RunId: 120 Total rows queued: 243314
Next RunId: 121 Total rows queued: 245133
Next RunId: 122 Total rows queued: 246960
Next RunId: 123 Total rows queued: 248794
Next RunId: 124 Total rows queued: 250637
Next RunId: 125 Total rows queued: 252456
Next RunId: 126 Total rows queued: 254380
Next RunId: 127 Total rows queued: 256299
Next RunId: 128 Total rows queued: 258231
Next RunId: 129 Total rows queued: 260157
Next RunId: 130 Total rows queued: 262073
Next RunId: 131 Total rows queued: 263997
Next RunId: 132 Total rows queued: 265916
Next RunId: 133 Total rows queued: 267848
Next RunId: 134 Total rows queued: 269774
Next RunId: 135 Total rows queued: 271690
Next RunId: 136 Total rows queued: 273614
Next RunId: 137 Total rows queued: 275533
Next RunId: 138 Total rows queued: 277465
Next RunId: 139 Total rows queued: 279391
Next RunId: 140 Total rows queued: 281307
Next RunId: 141 Total rows queued: 283231
Next RunId: 142 Total rows queued: 285150
Next RunId: 143 Total rows queued: 287082
Next RunId: 144 Total rows queued: 289008
Next RunId: 145 Total rows queued: 290924
Next RunId: 146 Total rows queued: 292848
Next RunId: 147 Total rows queued: 294767
Next RunId: 148 Total rows queued: 296699
Next RunId: 149 Total rows queued: 298625
Next RunId: 150 Total rows queued: 300541
Next RunId: 151 Total rows queued: 302596
Next RunId: 152 Total rows queued: 304640
Next RunId: 153 Total rows queued: 306694
Next RunId: 154 Total rows queued: 308743
Next RunId: 155 Total rows queued: 310792
Next RunId: 156 Total rows queued: 312853
Next RunId: 157 Total rows queued: 314967
Next RunId: 158 Total rows queued: 317052
Next RunId: 159 Total rows queued: 319121
Next RunId: 160 Total rows queued: 321191
Next RunId: 161 Total rows queued: 323252
Next RunId: 162 Total rows queued: 325370
Next RunId: 163 Total rows queued: 327455

Next RunId: 164 Total rows queued: 329525
Next RunId: 165 Total rows queued: 331595
Next RunId: 166 Total rows queued: 333656
Next RunId: 167 Total rows queued: 335774
Next RunId: 168 Total rows queued: 337859
Next RunId: 169 Total rows queued: 339929
Next RunId: 170 Total rows queued: 341999
Next RunId: 171 Total rows queued: 344060
Next RunId: 172 Total rows queued: 346178
Next RunId: 173 Total rows queued: 348263
Next RunId: 174 Total rows queued: 350333
Next RunId: 175 Total rows queued: 352403
Next RunId: 176 Total rows queued: 354478
Next RunId: 177 Total rows queued: 356522
Next RunId: 178 Total rows queued: 358576
Next RunId: 179 Total rows queued: 360625
Next RunId: 180 Total rows queued: 362674
Next RunId: 181 Total rows queued: 364880
Next RunId: 182 Total rows queued: 367036
Next RunId: 183 Total rows queued: 369222
Next RunId: 184 Total rows queued: 371400
Next RunId: 185 Total rows queued: 373580
Next RunId: 186 Total rows queued: 375817
Next RunId: 187 Total rows queued: 377993
Next RunId: 188 Total rows queued: 380254
Next RunId: 189 Total rows queued: 382436
Next RunId: 190 Total rows queued: 384649
Next RunId: 191 Total rows queued: 386887
Next RunId: 192 Total rows queued: 389063
Next RunId: 193 Total rows queued: 391324
Next RunId: 194 Total rows queued: 393507
Next RunId: 195 Total rows queued: 395723
Next RunId: 196 Total rows queued: 397961
Next RunId: 197 Total rows queued: 400137
Next RunId: 198 Total rows queued: 402398
Next RunId: 199 Total rows queued: 404581
Next RunId: 200 Total rows queued: 406797
Next RunId: 201 Total rows queued: 408788
Next RunId: 202 Total rows queued: 410749
Next RunId: 203 Total rows queued: 412748
Next RunId: 204 Total rows queued: 414707
Next RunId: 205 Total rows queued: 416690
Next RunId: 206 Total rows queued: 418713
Next RunId: 207 Total rows queued: 420675
Next RunId: 208 Total rows queued: 422701
Next RunId: 209 Total rows queued: 424711
Next RunId: 210 Total rows queued: 426686
Next RunId: 211 Total rows queued: 428720

Next RunId: 212 Total rows queued: 430711
Next RunId: 213 Total rows queued: 432742
Next RunId: 214 Total rows queued: 434739
Next RunId: 215 Total rows queued: 436734
Next RunId: 216 Total rows queued: 438804
Next RunId: 217 Total rows queued: 440811
Next RunId: 218 Total rows queued: 442906
Next RunId: 219 Total rows queued: 444948
Next RunId: 220 Total rows queued: 446998
Next RunId: 221 Total rows queued: 449059
Next RunId: 222 Total rows queued: 451087
Next RunId: 223 Total rows queued: 453169
Next RunId: 224 Total rows queued: 455218
Next RunId: 225 Total rows queued: 457283
Next RunId: 226 Total rows queued: 459368
Next RunId: 227 Total rows queued: 461422
Next RunId: 228 Total rows queued: 463524
Next RunId: 229 Total rows queued: 465598
Next RunId: 230 Total rows queued: 467670
Next RunId: 231 Total rows queued: 469807
Next RunId: 232 Total rows queued: 471923
Next RunId: 233 Total rows queued: 474094
Next RunId: 234 Total rows queued: 476270
Next RunId: 235 Total rows queued: 478417
Next RunId: 236 Total rows queued: 480593
Next RunId: 237 Total rows queued: 482731
Next RunId: 238 Total rows queued: 484915
Next RunId: 239 Total rows queued: 487082
Next RunId: 240 Total rows queued: 489245
Next RunId: 241 Total rows queued: 491407
Next RunId: 242 Total rows queued: 493564
Next RunId: 243 Total rows queued: 495750
Next RunId: 244 Total rows queued: 497927
Next RunId: 245 Total rows queued: 500092
Next RunId: 246 Total rows queued: 502249
Next RunId: 247 Total rows queued: 504416
Next RunId: 248 Total rows queued: 506602
Next RunId: 249 Total rows queued: 508783
Next RunId: 250 Total rows queued: 510963
Next RunId: 251 Total rows queued: 513130
Next RunId: 252 Total rows queued: 515297
Next RunId: 253 Total rows queued: 517483
Next RunId: 254 Total rows queued: 519664
Next RunId: 255 Total rows queued: 521843
Next RunId: 256 Total rows queued: 524012
Next RunId: 257 Total rows queued: 526179
Next RunId: 258 Total rows queued: 528365
Next RunId: 259 Total rows queued: 530546

Next RunId: 260 Total rows queued: 532726
Inserted rows: 532726

0.5 OEE Out

0.5.1 Create Metrics Table

```
[11]: tgt.execute("""
CREATE TABLE IF NOT EXISTS OEE_Out_WindowMetrics (
    Run INTEGER NOT NULL,
    EndTimeStamp REAL NOT NULL,
    EndRow INTEGER NOT NULL,
    WindowEvents INTEGER NOT NULL,
    StepEvents INTEGER NOT NULL,
    BaseMetricsJSON TEXT NOT NULL,
    OEEMetricsJSON TEXT NOT NULL,
    PRIMARY KEY (Run, EndRow)
);
""")
tgt.commit()
```

0.5.2 Load TS_out into Python Dataframe / RunID

```
[12]: # Optional but recommended: clear table before rebuilding
tgt.execute("DELETE FROM OEE_Out;")
tgt.commit()

# Get all distinct runs
run_ids = [r["RunID"] for r in tgt.execute(
    "SELECT DISTINCT RunID FROM TS_Out ORDER BY RunID"
).fetchall()]

print("Runs detected:", run_ids)

for run_id in run_ids:

    df = pd.read_sql_query("""
        SELECT
            RunID AS Run,
            TimeStamp,
            Total,
            NiO
        FROM TS_Out
        WHERE RunID = ?
        ORDER BY TimeStamp
        """, tgt, params=(run_id,))

    if df.empty:
```

```

        continue

    # Copy cumulative values
    df["Total_Cumul"] = df["Total"]
    df["NiO_Cumul"]   = df["NiO"]

    # Unwind cumulative into increments
    df["Total"] = df["Total_Cumul"].diff().fillna(df["Total_Cumul"]).
↳clip(lower=0)
    df["NiO"]   = df["NiO_Cumul"].diff().fillna(df["NiO_Cumul"]).clip(lower=0)

    # --- DeltaT ---
    df["DeltaT"] = df["TimeStamp"].diff()

    valid_dt = df["DeltaT"].iloc[1:]
    valid_dt = valid_dt[valid_dt > 0]

    dt0 = float(valid_dt.median()) if len(valid_dt) > 0 else 0.0
    df.loc[0, "DeltaT"] = dt0

    # Ensure no NaN remains
    df["DeltaT"] = df["DeltaT"].fillna(0.0)

    # Cumulative time
    df["DeltaT_Cumul"] = df["DeltaT"].cumsum()

    # Cycle times
    df["CT_act"] = df["DeltaT"]
    df["CT_tot"] = np.where(
        df["Total_Cumul"] > 0,
        df["DeltaT_Cumul"] / df["Total_Cumul"],
        0.0
    )

    # Append to OEE_Out
    df.to_sql("OEE_Out", tgt, if_exists="append", index=False)

    print(f"Run {run_id} appended. Rows: {len(df)}")

tgt.commit()
print("OEE_Out rebuild completed.")

```

Runs detected: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114,

115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130,
131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146,
147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162,
163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178,
179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194,
195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210,
211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226,
227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242,
243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258,
259, 260]

Run 1 appended. Rows: 20023
Run 2 appended. Rows: 20080
Run 3 appended. Rows: 19869
Run 4 appended. Rows: 19834
Run 5 appended. Rows: 19245
Run 6 appended. Rows: 20085
Run 7 appended. Rows: 20619
Run 8 appended. Rows: 19886
Run 9 appended. Rows: 19838
Run 10 appended. Rows: 19295
Run 11 appended. Rows: 20086
Run 12 appended. Rows: 20697
Run 13 appended. Rows: 19892
Run 14 appended. Rows: 19838
Run 15 appended. Rows: 19303
Run 16 appended. Rows: 20086
Run 17 appended. Rows: 20713
Run 18 appended. Rows: 19896
Run 19 appended. Rows: 19840
Run 20 appended. Rows: 19312
Run 21 appended. Rows: 20086
Run 22 appended. Rows: 20713
Run 23 appended. Rows: 19896
Run 24 appended. Rows: 19843
Run 25 appended. Rows: 19314
Run 26 appended. Rows: 20560
Run 27 appended. Rows: 20295
Run 28 appended. Rows: 20510
Run 29 appended. Rows: 20542
Run 30 appended. Rows: 20006
Run 31 appended. Rows: 20962
Run 32 appended. Rows: 21130
Run 33 appended. Rows: 20766
Run 34 appended. Rows: 20697
Run 35 appended. Rows: 20144
Run 36 appended. Rows: 21000
Run 37 appended. Rows: 21589
Run 38 appended. Rows: 20781

Run 39 appended. Rows: 20699
Run 40 appended. Rows: 20166
Run 41 appended. Rows: 21000
Run 42 appended. Rows: 21611
Run 43 appended. Rows: 20786
Run 44 appended. Rows: 20700
Run 45 appended. Rows: 20174
Run 46 appended. Rows: 21000
Run 47 appended. Rows: 21623
Run 48 appended. Rows: 20788
Run 49 appended. Rows: 20701
Run 50 appended. Rows: 20179
Run 51 appended. Rows: 20330
Run 52 appended. Rows: 19791
Run 53 appended. Rows: 20471
Run 54 appended. Rows: 19950
Run 55 appended. Rows: 20157
Run 56 appended. Rows: 20394
Run 57 appended. Rows: 19861
Run 58 appended. Rows: 20500
Run 59 appended. Rows: 19957
Run 60 appended. Rows: 20241
Run 61 appended. Rows: 20394
Run 62 appended. Rows: 19861
Run 63 appended. Rows: 20500
Run 64 appended. Rows: 19959
Run 65 appended. Rows: 20241
Run 66 appended. Rows: 20394
Run 67 appended. Rows: 19861
Run 68 appended. Rows: 20500
Run 69 appended. Rows: 19959
Run 70 appended. Rows: 20241
Run 71 appended. Rows: 20394
Run 72 appended. Rows: 19861
Run 73 appended. Rows: 20500
Run 74 appended. Rows: 19959
Run 75 appended. Rows: 20241
Run 76 appended. Rows: 20826
Run 77 appended. Rows: 20551
Run 78 appended. Rows: 20652
Run 79 appended. Rows: 20600
Run 80 appended. Rows: 20603
Run 81 appended. Rows: 21470
Run 82 appended. Rows: 21596
Run 83 appended. Rows: 21947
Run 84 appended. Rows: 21735
Run 85 appended. Rows: 21661
Run 86 appended. Rows: 21523

Run 87 appended. Rows: 21648
Run 88 appended. Rows: 22078
Run 89 appended. Rows: 21852
Run 90 appended. Rows: 21715
Run 91 appended. Rows: 21523
Run 92 appended. Rows: 21648
Run 93 appended. Rows: 22078
Run 94 appended. Rows: 21860
Run 95 appended. Rows: 21718
Run 96 appended. Rows: 21523
Run 97 appended. Rows: 21648
Run 98 appended. Rows: 22078
Run 99 appended. Rows: 21862
Run 100 appended. Rows: 21718
Run 101 appended. Rows: 18096
Run 102 appended. Rows: 18170
Run 103 appended. Rows: 18246
Run 104 appended. Rows: 18339
Run 105 appended. Rows: 18094
Run 106 appended. Rows: 18096
Run 107 appended. Rows: 18170
Run 108 appended. Rows: 18246
Run 109 appended. Rows: 18339
Run 110 appended. Rows: 18094
Run 111 appended. Rows: 18096
Run 112 appended. Rows: 18170
Run 113 appended. Rows: 18246
Run 114 appended. Rows: 18339
Run 115 appended. Rows: 18094
Run 116 appended. Rows: 18096
Run 117 appended. Rows: 18170
Run 118 appended. Rows: 18246
Run 119 appended. Rows: 18339
Run 120 appended. Rows: 18094
Run 121 appended. Rows: 18096
Run 122 appended. Rows: 18170
Run 123 appended. Rows: 18246
Run 124 appended. Rows: 18339
Run 125 appended. Rows: 18094
Run 126 appended. Rows: 19149
Run 127 appended. Rows: 19096
Run 128 appended. Rows: 19220
Run 129 appended. Rows: 19162
Run 130 appended. Rows: 19066
Run 131 appended. Rows: 19149
Run 132 appended. Rows: 19096
Run 133 appended. Rows: 19220
Run 134 appended. Rows: 19169

Run 135 appended. Rows: 19067
Run 136 appended. Rows: 19149
Run 137 appended. Rows: 19096
Run 138 appended. Rows: 19220
Run 139 appended. Rows: 19169
Run 140 appended. Rows: 19067
Run 141 appended. Rows: 19149
Run 142 appended. Rows: 19096
Run 143 appended. Rows: 19220
Run 144 appended. Rows: 19169
Run 145 appended. Rows: 19067
Run 146 appended. Rows: 19149
Run 147 appended. Rows: 19096
Run 148 appended. Rows: 19220
Run 149 appended. Rows: 19169
Run 150 appended. Rows: 19067
Run 151 appended. Rows: 20454
Run 152 appended. Rows: 20452
Run 153 appended. Rows: 20546
Run 154 appended. Rows: 20552
Run 155 appended. Rows: 20549
Run 156 appended. Rows: 20511
Run 157 appended. Rows: 21040
Run 158 appended. Rows: 20753
Run 159 appended. Rows: 20598
Run 160 appended. Rows: 20600
Run 161 appended. Rows: 20511
Run 162 appended. Rows: 21089
Run 163 appended. Rows: 20753
Run 164 appended. Rows: 20601
Run 165 appended. Rows: 20607
Run 166 appended. Rows: 20511
Run 167 appended. Rows: 21089
Run 168 appended. Rows: 20753
Run 169 appended. Rows: 20601
Run 170 appended. Rows: 20607
Run 171 appended. Rows: 20511
Run 172 appended. Rows: 21089
Run 173 appended. Rows: 20753
Run 174 appended. Rows: 20601
Run 175 appended. Rows: 20607
Run 176 appended. Rows: 20820
Run 177 appended. Rows: 20446
Run 178 appended. Rows: 20652
Run 179 appended. Rows: 20600
Run 180 appended. Rows: 20546
Run 181 appended. Rows: 21968
Run 182 appended. Rows: 21463

Run 183 appended. Rows: 21940
Run 184 appended. Rows: 21680
Run 185 appended. Rows: 21729
Run 186 appended. Rows: 22273
Run 187 appended. Rows: 21668
Run 188 appended. Rows: 22519
Run 189 appended. Rows: 21725
Run 190 appended. Rows: 22038
Run 191 appended. Rows: 22282
Run 192 appended. Rows: 21668
Run 193 appended. Rows: 22519
Run 194 appended. Rows: 21733
Run 195 appended. Rows: 22068
Run 196 appended. Rows: 22282
Run 197 appended. Rows: 21668
Run 198 appended. Rows: 22519
Run 199 appended. Rows: 21735
Run 200 appended. Rows: 22068
Run 201 appended. Rows: 19811
Run 202 appended. Rows: 19518
Run 203 appended. Rows: 19899
Run 204 appended. Rows: 19496
Run 205 appended. Rows: 19733
Run 206 appended. Rows: 20138
Run 207 appended. Rows: 19529
Run 208 appended. Rows: 20161
Run 209 appended. Rows: 20006
Run 210 appended. Rows: 19654
Run 211 appended. Rows: 20246
Run 212 appended. Rows: 19818
Run 213 appended. Rows: 20215
Run 214 appended. Rows: 19875
Run 215 appended. Rows: 19859
Run 216 appended. Rows: 20607
Run 217 appended. Rows: 19974
Run 218 appended. Rows: 20855
Run 219 appended. Rows: 20320
Run 220 appended. Rows: 20403
Run 221 appended. Rows: 20518
Run 222 appended. Rows: 20182
Run 223 appended. Rows: 20725
Run 224 appended. Rows: 20394
Run 225 appended. Rows: 20556
Run 226 appended. Rows: 20753
Run 227 appended. Rows: 20449
Run 228 appended. Rows: 20920
Run 229 appended. Rows: 20648
Run 230 appended. Rows: 20621

Run 231 appended. Rows: 21274
Run 232 appended. Rows: 21064
Run 233 appended. Rows: 21610
Run 234 appended. Rows: 21667
Run 235 appended. Rows: 21377
Run 236 appended. Rows: 21662
Run 237 appended. Rows: 21288
Run 238 appended. Rows: 21748
Run 239 appended. Rows: 21578
Run 240 appended. Rows: 21531
Run 241 appended. Rows: 21529
Run 242 appended. Rows: 21477
Run 243 appended. Rows: 21828
Run 244 appended. Rows: 21675
Run 245 appended. Rows: 21551
Run 246 appended. Rows: 21471
Run 247 appended. Rows: 21680
Run 248 appended. Rows: 21947
Run 249 appended. Rows: 21772
Run 250 appended. Rows: 21721
Run 251 appended. Rows: 21576
Run 252 appended. Rows: 21708
Run 253 appended. Rows: 21947
Run 254 appended. Rows: 21804
Run 255 appended. Rows: 21691
Run 256 appended. Rows: 21596
Run 257 appended. Rows: 21674
Run 258 appended. Rows: 21942
Run 259 appended. Rows: 21799
Run 260 appended. Rows: 21753
OEE_Out rebuild completed.

0.5.3 Fill the metrics table

```
[13]: WINDOW = 120
STEP = 10

tgt.execute("DELETE FROM OEE_Out_WindowMetrics;")
tgt.commit()

rows_to_insert = []

run_ids = [r["Run"] for r in tgt.execute(
    "SELECT DISTINCT Run FROM OEE_Out ORDER BY Run"
).fetchall()]

for run_id in run_ids:
```

```

df_run = pd.read_sql_query("""
    SELECT Run, TimeStamp, Total, Total_Cumul, NiO, NiO_Cumul, DeltaT,
    DeltaT_Cumul, CT_tot, CT_act
    FROM OEE_Out
    WHERE Run = ?
    ORDER BY TimeStamp
    """, tgt, params=(run_id,))

n = len(df_run)
if n < WINDOW:
    continue

for end_idx in range(WINDOW - 1, n, STEP):
    start_idx = end_idx - WINDOW + 1
    df_window = df_run.iloc[start_idx:end_idx + 1]

    base_metrics = calculate_basic_metrics(df_window)
    if not base_metrics:
        continue

    oee_metrics = OEE_Calc(base_metrics)
    if not oee_metrics:
        continue

    rows_to_insert.append((
        int(run_id),
        float(df_run.iloc[end_idx] ["TimeStamp"]),
        int(end_idx),
        int(WINDOW),
        int(STEP),
        json.dumps(base_metrics, ensure_ascii=False),
        json.dumps(oee_metrics, ensure_ascii=False),
    ))

print("Next RunId:", run_id, " Total rows queued:", len(rows_to_insert))

tgt.executemany("""
    INSERT OR REPLACE INTO OEE_Out_WindowMetrics
    (Run, EndTimeStamp, EndRow, WindowEvents, StepEvents, BaseMetricsJSON,
    OEEMetricsJSON)
    VALUES (?, ?, ?, ?, ?, ?, ?)
    """, rows_to_insert)

tgt.commit()
print("Inserted rows:", len(rows_to_insert))

```

Next RunId: 1 Total rows queued: 1991

Next RunId: 2 Total rows queued: 3988
Next RunId: 3 Total rows queued: 5963
Next RunId: 4 Total rows queued: 7935
Next RunId: 5 Total rows queued: 9848
Next RunId: 6 Total rows queued: 11845
Next RunId: 7 Total rows queued: 13895
Next RunId: 8 Total rows queued: 15872
Next RunId: 9 Total rows queued: 17844
Next RunId: 10 Total rows queued: 19762
Next RunId: 11 Total rows queued: 21759
Next RunId: 12 Total rows queued: 23817
Next RunId: 13 Total rows queued: 25795
Next RunId: 14 Total rows queued: 27767
Next RunId: 15 Total rows queued: 29686
Next RunId: 16 Total rows queued: 31683
Next RunId: 17 Total rows queued: 33743
Next RunId: 18 Total rows queued: 35721
Next RunId: 19 Total rows queued: 37694
Next RunId: 20 Total rows queued: 39614
Next RunId: 21 Total rows queued: 41611
Next RunId: 22 Total rows queued: 43671
Next RunId: 23 Total rows queued: 45649
Next RunId: 24 Total rows queued: 47622
Next RunId: 25 Total rows queued: 49542
Next RunId: 26 Total rows queued: 51587
Next RunId: 27 Total rows queued: 53605
Next RunId: 28 Total rows queued: 55645
Next RunId: 29 Total rows queued: 57688
Next RunId: 30 Total rows queued: 59677
Next RunId: 31 Total rows queued: 61762
Next RunId: 32 Total rows queued: 63864
Next RunId: 33 Total rows queued: 65929
Next RunId: 34 Total rows queued: 67987
Next RunId: 35 Total rows queued: 69990
Next RunId: 36 Total rows queued: 72079
Next RunId: 37 Total rows queued: 74226
Next RunId: 38 Total rows queued: 76293
Next RunId: 39 Total rows queued: 78351
Next RunId: 40 Total rows queued: 80356
Next RunId: 41 Total rows queued: 82445
Next RunId: 42 Total rows queued: 84595
Next RunId: 43 Total rows queued: 86662
Next RunId: 44 Total rows queued: 88721
Next RunId: 45 Total rows queued: 90727
Next RunId: 46 Total rows queued: 92816
Next RunId: 47 Total rows queued: 94967
Next RunId: 48 Total rows queued: 97034
Next RunId: 49 Total rows queued: 99093

Next RunId: 50 Total rows queued: 101099
Next RunId: 51 Total rows queued: 103121
Next RunId: 52 Total rows queued: 105089
Next RunId: 53 Total rows queued: 107125
Next RunId: 54 Total rows queued: 109109
Next RunId: 55 Total rows queued: 111113
Next RunId: 56 Total rows queued: 113141
Next RunId: 57 Total rows queued: 115116
Next RunId: 58 Total rows queued: 117155
Next RunId: 59 Total rows queued: 119139
Next RunId: 60 Total rows queued: 121152
Next RunId: 61 Total rows queued: 123180
Next RunId: 62 Total rows queued: 125155
Next RunId: 63 Total rows queued: 127194
Next RunId: 64 Total rows queued: 129178
Next RunId: 65 Total rows queued: 131191
Next RunId: 66 Total rows queued: 133219
Next RunId: 67 Total rows queued: 135194
Next RunId: 68 Total rows queued: 137233
Next RunId: 69 Total rows queued: 139217
Next RunId: 70 Total rows queued: 141230
Next RunId: 71 Total rows queued: 143258
Next RunId: 72 Total rows queued: 145233
Next RunId: 73 Total rows queued: 147272
Next RunId: 74 Total rows queued: 149256
Next RunId: 75 Total rows queued: 151269
Next RunId: 76 Total rows queued: 153340
Next RunId: 77 Total rows queued: 155384
Next RunId: 78 Total rows queued: 157438
Next RunId: 79 Total rows queued: 159487
Next RunId: 80 Total rows queued: 161536
Next RunId: 81 Total rows queued: 163672
Next RunId: 82 Total rows queued: 165820
Next RunId: 83 Total rows queued: 168003
Next RunId: 84 Total rows queued: 170165
Next RunId: 85 Total rows queued: 172320
Next RunId: 86 Total rows queued: 174461
Next RunId: 87 Total rows queued: 176614
Next RunId: 88 Total rows queued: 178810
Next RunId: 89 Total rows queued: 180984
Next RunId: 90 Total rows queued: 183144
Next RunId: 91 Total rows queued: 185285
Next RunId: 92 Total rows queued: 187438
Next RunId: 93 Total rows queued: 189634
Next RunId: 94 Total rows queued: 191809
Next RunId: 95 Total rows queued: 193969
Next RunId: 96 Total rows queued: 196110
Next RunId: 97 Total rows queued: 198263

Next RunId: 98 Total rows queued: 200459
Next RunId: 99 Total rows queued: 202634
Next RunId: 100 Total rows queued: 204794
Next RunId: 101 Total rows queued: 206592
Next RunId: 102 Total rows queued: 208398
Next RunId: 103 Total rows queued: 210211
Next RunId: 104 Total rows queued: 212033
Next RunId: 105 Total rows queued: 213831
Next RunId: 106 Total rows queued: 215629
Next RunId: 107 Total rows queued: 217435
Next RunId: 108 Total rows queued: 219248
Next RunId: 109 Total rows queued: 221070
Next RunId: 110 Total rows queued: 222868
Next RunId: 111 Total rows queued: 224666
Next RunId: 112 Total rows queued: 226472
Next RunId: 113 Total rows queued: 228285
Next RunId: 114 Total rows queued: 230107
Next RunId: 115 Total rows queued: 231905
Next RunId: 116 Total rows queued: 233703
Next RunId: 117 Total rows queued: 235509
Next RunId: 118 Total rows queued: 237322
Next RunId: 119 Total rows queued: 239144
Next RunId: 120 Total rows queued: 240942
Next RunId: 121 Total rows queued: 242740
Next RunId: 122 Total rows queued: 244546
Next RunId: 123 Total rows queued: 246359
Next RunId: 124 Total rows queued: 248181
Next RunId: 125 Total rows queued: 249979
Next RunId: 126 Total rows queued: 251882
Next RunId: 127 Total rows queued: 253780
Next RunId: 128 Total rows queued: 255691
Next RunId: 129 Total rows queued: 257596
Next RunId: 130 Total rows queued: 259491
Next RunId: 131 Total rows queued: 261394
Next RunId: 132 Total rows queued: 263292
Next RunId: 133 Total rows queued: 265203
Next RunId: 134 Total rows queued: 267108
Next RunId: 135 Total rows queued: 269003
Next RunId: 136 Total rows queued: 270906
Next RunId: 137 Total rows queued: 272804
Next RunId: 138 Total rows queued: 274715
Next RunId: 139 Total rows queued: 276620
Next RunId: 140 Total rows queued: 278515
Next RunId: 141 Total rows queued: 280418
Next RunId: 142 Total rows queued: 282316
Next RunId: 143 Total rows queued: 284227
Next RunId: 144 Total rows queued: 286132
Next RunId: 145 Total rows queued: 288027

Next RunId: 146 Total rows queued: 289930
Next RunId: 147 Total rows queued: 291828
Next RunId: 148 Total rows queued: 293739
Next RunId: 149 Total rows queued: 295644
Next RunId: 150 Total rows queued: 297539
Next RunId: 151 Total rows queued: 299573
Next RunId: 152 Total rows queued: 301607
Next RunId: 153 Total rows queued: 303650
Next RunId: 154 Total rows queued: 305694
Next RunId: 155 Total rows queued: 307737
Next RunId: 156 Total rows queued: 309777
Next RunId: 157 Total rows queued: 311870
Next RunId: 158 Total rows queued: 313934
Next RunId: 159 Total rows queued: 315982
Next RunId: 160 Total rows queued: 318031
Next RunId: 161 Total rows queued: 320071
Next RunId: 162 Total rows queued: 322168
Next RunId: 163 Total rows queued: 324232
Next RunId: 164 Total rows queued: 326281
Next RunId: 165 Total rows queued: 328330
Next RunId: 166 Total rows queued: 330370
Next RunId: 167 Total rows queued: 332467
Next RunId: 168 Total rows queued: 334531
Next RunId: 169 Total rows queued: 336580
Next RunId: 170 Total rows queued: 338629
Next RunId: 171 Total rows queued: 340669
Next RunId: 172 Total rows queued: 342766
Next RunId: 173 Total rows queued: 344830
Next RunId: 174 Total rows queued: 346879
Next RunId: 175 Total rows queued: 348928
Next RunId: 176 Total rows queued: 350999
Next RunId: 177 Total rows queued: 353032
Next RunId: 178 Total rows queued: 355086
Next RunId: 179 Total rows queued: 357135
Next RunId: 180 Total rows queued: 359178
Next RunId: 181 Total rows queued: 361363
Next RunId: 182 Total rows queued: 363498
Next RunId: 183 Total rows queued: 365681
Next RunId: 184 Total rows queued: 367838
Next RunId: 185 Total rows queued: 369999
Next RunId: 186 Total rows queued: 372215
Next RunId: 187 Total rows queued: 374370
Next RunId: 188 Total rows queued: 376610
Next RunId: 189 Total rows queued: 378771
Next RunId: 190 Total rows queued: 380963
Next RunId: 191 Total rows queued: 383180
Next RunId: 192 Total rows queued: 385335
Next RunId: 193 Total rows queued: 387575

Next RunId: 194 Total rows queued: 389737
Next RunId: 195 Total rows queued: 391932
Next RunId: 196 Total rows queued: 394149
Next RunId: 197 Total rows queued: 396304
Next RunId: 198 Total rows queued: 398544
Next RunId: 199 Total rows queued: 400706
Next RunId: 200 Total rows queued: 402901
Next RunId: 201 Total rows queued: 404871
Next RunId: 202 Total rows queued: 406811
Next RunId: 203 Total rows queued: 408789
Next RunId: 204 Total rows queued: 410727
Next RunId: 205 Total rows queued: 412689
Next RunId: 206 Total rows queued: 414691
Next RunId: 207 Total rows queued: 416632
Next RunId: 208 Total rows queued: 418637
Next RunId: 209 Total rows queued: 420626
Next RunId: 210 Total rows queued: 422580
Next RunId: 211 Total rows queued: 424593
Next RunId: 212 Total rows queued: 426563
Next RunId: 213 Total rows queued: 428573
Next RunId: 214 Total rows queued: 430549
Next RunId: 215 Total rows queued: 432523
Next RunId: 216 Total rows queued: 434572
Next RunId: 217 Total rows queued: 436558
Next RunId: 218 Total rows queued: 438632
Next RunId: 219 Total rows queued: 440653
Next RunId: 220 Total rows queued: 442682
Next RunId: 221 Total rows queued: 444722
Next RunId: 222 Total rows queued: 446729
Next RunId: 223 Total rows queued: 448790
Next RunId: 224 Total rows queued: 450818
Next RunId: 225 Total rows queued: 452862
Next RunId: 226 Total rows queued: 454926
Next RunId: 227 Total rows queued: 456959
Next RunId: 228 Total rows queued: 459040
Next RunId: 229 Total rows queued: 461093
Next RunId: 230 Total rows queued: 463144
Next RunId: 231 Total rows queued: 465260
Next RunId: 232 Total rows queued: 467355
Next RunId: 233 Total rows queued: 469505
Next RunId: 234 Total rows queued: 471660
Next RunId: 235 Total rows queued: 473786
Next RunId: 236 Total rows queued: 475941
Next RunId: 237 Total rows queued: 478058
Next RunId: 238 Total rows queued: 480221
Next RunId: 239 Total rows queued: 482367
Next RunId: 240 Total rows queued: 484509
Next RunId: 241 Total rows queued: 486650

```
Next RunId: 242 Total rows queued: 488786
Next RunId: 243 Total rows queued: 490957
Next RunId: 244 Total rows queued: 493113
Next RunId: 245 Total rows queued: 495257
Next RunId: 246 Total rows queued: 497393
Next RunId: 247 Total rows queued: 499550
Next RunId: 248 Total rows queued: 501733
Next RunId: 249 Total rows queued: 503899
Next RunId: 250 Total rows queued: 506060
Next RunId: 251 Total rows queued: 508206
Next RunId: 252 Total rows queued: 510365
Next RunId: 253 Total rows queued: 512548
Next RunId: 254 Total rows queued: 514717
Next RunId: 255 Total rows queued: 516875
Next RunId: 256 Total rows queued: 519023
Next RunId: 257 Total rows queued: 521179
Next RunId: 258 Total rows queued: 523362
Next RunId: 259 Total rows queued: 525530
Next RunId: 260 Total rows queued: 527694
Inserted rows: 527694
```

0.6 Closing the DB

```
[14]: tgt.commit()
      tgt.close()
      print("Connections closed cleanly.")
```

```
Connections closed cleanly.
```

D Survival-BNN Notebook

survival_BNN

February 27, 2026

1 Imports

```
[1]: import sqlite3
import numpy as np
import pandas as pd

import torch
import torch.nn as nn

import pyro
import pyro.distributions as dist
from pyro.nn import PyroModule, PyroSample
from pyro.infer import SVI, Trace_ELBO, Predictive
from pyro.infer.autoguide import AutoDiagonalNormal

from sklearn.preprocessing import StandardScaler
from sklearn.metrics import confusion_matrix, classification_report, \
    roc_auc_score, accuracy_score
```

2 Reproducibility

```
[2]: SEED = 42
np.random.seed(SEED)
torch.manual_seed(SEED)
pyro.set_rng_seed(SEED)
pyro.clear_param_store()

DEVICE = torch.device("cpu") # you installed CPU torch
```

3 Load data from SQLite

```
[3]: DB_PATH = "normalized_Exp_DB_892.db" # adjust if needed

def read_table(db_path, table_name):
    with sqlite3.connect(db_path) as con:
        return pd.read_sql_query(f"SELECT * FROM {table_name};", con)
```

```

df_train = read_table(DB_PATH, "BNN_Train")
df_val   = read_table(DB_PATH, "BNN_Val")
df_test  = read_table(DB_PATH, "BNN_Test")

print("Shapes:", df_train.shape, df_val.shape, df_test.shape)
df_train.head()

```

Shapes: (319442, 18) (105912, 18) (105355, 18)

```

[3]:  Run  In_EndTimeStamp  y  Dt_ToNextMaint      DeltaT  CT_Median_In  \
0    1    1.735715e+09  0    3099.781487    155.178588    26.4
1    1    1.735716e+09  0    2832.492627    112.110272    28.1
2    1    1.735716e+09  0    2516.325295     74.747890    25.2
3    1    1.735716e+09  0    2110.632948    148.440237    26.0
4    1    1.735717e+09  0    1623.988375    303.084810    27.5

      CT_IQR_In  CT_P95_In  CT_Median_Out  CT_IQR_Out  CT_P95_Out  DowntimeWin  \
0         38.9     105.9         33.2         0.0         33.2  1667.573162
1         39.1     106.2         33.2         0.0         33.2  1609.382940
2         38.4     105.2         33.2         0.0         33.2  1763.907872
3         38.3     105.8         33.2         0.0         33.2  1761.203723
4         38.8     107.7         33.2         0.0         33.2  1834.651926

      FailCountWin  MTTRWin  TimeSinceFailEnd  HasFailureHistory  \
0             30.0   55.585772     3099.781487                0
1             30.0   53.646098     2832.492627                0
2             30.0   58.796929     2516.325295                0
3             30.0   58.706791     2110.632948                0
4             30.0   61.155064     1623.988375                0

      TimeSinceMaintEnd  BufferLevel
0                 0.0             3
1                 0.0             5
2                 0.0             6
3                 0.0             4
4                 0.0             1

```

4 Define feature columns

```

[4]: LABEL_COL = "y"
DROP_COLS = ["Run", "In_EndTimeStamp"] # not used as features

def prepare_df(df):
    df = df.copy()

    # Label -> int 0/1

```

```

df[LABEL_COL] = pd.to_numeric(df[LABEL_COL], errors="coerce")
df = df.dropna(subset=[LABEL_COL])
df[LABEL_COL] = df[LABEL_COL].astype(int)

# Ensure TimeSinceMaintEnd numeric if present
if "TimeSinceMaintEnd" in df.columns:
    df["TimeSinceMaintEnd"] = pd.to_numeric(df["TimeSinceMaintEnd"],
↪errors="coerce")

# Build numeric feature list
feature_cols = []
for c in df.columns:
    if c == LABEL_COL or c in DROP_COLS:
        continue
    if pd.api.types.is_numeric_dtype(df[c]):
        feature_cols.append(c)

# Median impute feature NaNs
for c in feature_cols:
    if df[c].isna().any():
        df[c] = df[c].fillna(df[c].median())

return df, feature_cols

df_train, FEATURE_COLS = prepare_df(df_train)
df_val, _ = prepare_df(df_val)
df_test, _ = prepare_df(df_test)

print("Features:", FEATURE_COLS)
print(df_train[FEATURE_COLS].dtypes)
print("Class balance train:\n", df_train[LABEL_COL].
↪value_counts(normalize=True))

```

```

Features: ['Dt_ToNextMaint', 'DeltaT', 'CT_Median_In', 'CT_IQR_In', 'CT_P95_In',
'CT_Median_Out', 'CT_IQR_Out', 'CT_P95_Out', 'DowntimeWin', 'FailCountWin',
'MTRWin', 'TimeSinceFailEnd', 'HasFailureHistory', 'TimeSinceMaintEnd',
'BufferLevel']

```

```

Dt_ToNextMaint      float64
DeltaT              float64
CT_Median_In       float64
CT_IQR_In          float64
CT_P95_In          float64
CT_Median_Out      float64
CT_IQR_Out         float64
CT_P95_Out         float64
DowntimeWin        float64
FailCountWin       float64
MTRWin             float64

```

```

TimeSinceFailEnd      float64
HasFailureHistory      int64
TimeSinceMaintEnd     float64
BufferLevel           int64
dtype: object
Class balance train:
  y
1    0.814038
0    0.185962
Name: proportion, dtype: float64

```

5 Convert to tensors + standardize

```

[5]: scaler = StandardScaler()

X_train = scaler.fit_transform(df_train[FEATURE_COLS].values.astype(np.float32))
X_val    = scaler.transform(df_val[FEATURE_COLS].values.astype(np.float32))
X_test   = scaler.transform(df_test[FEATURE_COLS].values.astype(np.float32))

y_train = df_train[LABEL_COL].values.astype(np.float32)
y_val    = df_val[LABEL_COL].values.astype(np.float32)
y_test   = df_test[LABEL_COL].values.astype(np.float32)

X_train_t = torch.tensor(X_train, dtype=torch.float32, device=DEVICE)
X_val_t    = torch.tensor(X_val, dtype=torch.float32, device=DEVICE)
X_test_t   = torch.tensor(X_test, dtype=torch.float32, device=DEVICE)

y_train_t = torch.tensor(y_train, dtype=torch.float32, device=DEVICE)
y_val_t    = torch.tensor(y_val, dtype=torch.float32, device=DEVICE)
y_test_t   = torch.tensor(y_test, dtype=torch.float32, device=DEVICE)

X_train_t.shape, y_train_t.shape

```

```
[5]: (torch.Size([319442, 15]), torch.Size([319442]))
```

6 Define a Bayesian model

```

[6]: class BayesianLastLayerBNN(PyroModule):
      def __init__(self, in_dim, hidden_dim=32):
          super().__init__()

          self.encoder = nn.Sequential(
              nn.Linear(in_dim, hidden_dim),
              nn.ReLU(),
              nn.Linear(hidden_dim, hidden_dim),
              nn.ReLU(),

```

```

    )

    self.out = PyroModule[nn.Linear](hidden_dim, 1)
    self.out.weight = PyroSample(dist.Normal(0., 1.).expand([1,
hidden_dim])).to_event(2))
    self.out.bias = PyroSample(dist.Normal(0., 1.).expand([1])).
to_event(1))

    def forward(self, x, y=None):
        z = self.encoder(x)
        logits = self.out(z).squeeze(-1) # [N]
        with pyro.plate("data", x.shape[0]):
            pyro.sample("obs", dist.Bernoulli(logits=logits), obs=y)
        return logits

```

7 Train with SVI

```

[7]: pyro.clear_param_store()

in_dim = X_train_t.shape[1]
model = BayesianLastLayerBNN(in_dim=in_dim, hidden_dim=32).to(DEVICE)

guide = AutoDiagonalNormal(model)
optimizer = pyro.optim.Adam({"lr": 1e-3})
svi = SVI(model, guide, optimizer, loss=Trace_ELBO())

def train_svi(num_steps=3000, print_every=300):
    losses = []
    for step in range(1, num_steps + 1):
        loss = svi.step(X_train_t, y_train_t)
        losses.append(loss)
        if step % print_every == 0:
            avg = float(np.mean(losses[-print_every:]))
            print(f"step {step:5d} | loss {avg:.2f}")
    return losses

losses = train_svi(num_steps=3000, print_every=300)

```

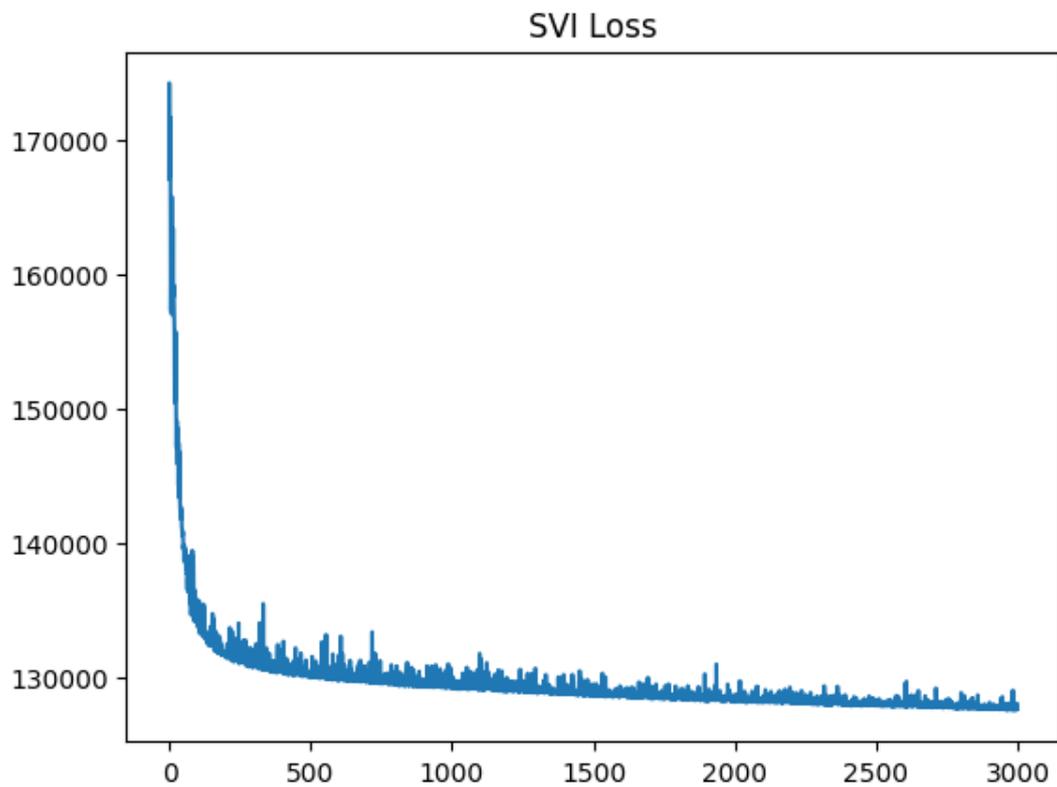
```

step   300 | loss 136396.09
step   600 | loss 130646.51
step   900 | loss 129910.26
step  1200 | loss 129509.51
step  1500 | loss 129076.01
step  1800 | loss 128745.89
step  2100 | loss 128508.81
step  2400 | loss 128279.63
step  2700 | loss 128064.90

```

step 3000 | loss 127857.89

```
[8]: import matplotlib.pyplot as plt
plt.plot(losses)
plt.title("SVI Loss")
plt.show()
```



8 Posterior predictive sampling

```
[9]: @torch.no_grad()
def posterior_predict_survival(model, guide, x_tensor, num_samples=500):
    predictive = Predictive(model, guide=guide, num_samples=num_samples,
    ↪return_sites=("obs",))
    obs_samples = predictive(x_tensor, y=None)["obs"] # [S, N], samples of y
    ↪in {0,1}
    p_mean = obs_samples.float().mean(dim=0).cpu().numpy()
    p_std = obs_samples.float().std(dim=0).cpu().numpy()
    return p_mean, p_std
```

```

p_val_mean, p_val_std = posterior_predict_survival(model, guide, X_val_t,
↳ num_samples=500)
p_test_mean, p_test_std = posterior_predict_survival(model, guide, X_test_t,
↳ num_samples=500)

print("Posterior predictive computed.")
print("VAL P(survive) first 5:", p_val_mean[:5])
print("Mean predictive std (VAL):", float(np.mean(p_val_std)))

```

```

Posterior predictive computed.
VAL P(survive) first 5: [0.734 0.838 0.888 0.938 0.982]
Mean predictive std (VAL): 0.33259788155555725

```

9 Classical evaluation at threshold 0.5

```

[10]: def eval_threshold(name, y_true, p_survive, threshold=0.5):
    y_pred = (p_survive >= threshold).astype(int)
    acc = accuracy_score(y_true, y_pred)
    auc = roc_auc_score(y_true, p_survive) if len(np.unique(y_true)) > 1 else
↳ np.nan

    print(f"\n=== {name} (threshold={threshold}) ===")
    print("Accuracy:", acc)
    print("ROC AUC :", auc)
    print("Confusion matrix:\n", confusion_matrix(y_true, y_pred))
    print("\nReport:\n", classification_report(y_true, y_pred, digits=4))

eval_threshold("VAL", y_val, p_val_mean, threshold=0.5)
eval_threshold("TEST", y_test, p_test_mean, threshold=0.5)

```

```

=== VAL (threshold=0.5) ===
Accuracy: 0.8035916610015862
ROC AUC : 0.758414951888521
Confusion matrix:
[[ 2604 17905]
 [ 2897 82506]]

```

Report:

	precision	recall	f1-score	support
0.0	0.4734	0.1270	0.2002	20509
1.0	0.8217	0.9661	0.8880	85403
accuracy			0.8036	105912
macro avg	0.6475	0.5465	0.5441	105912
weighted avg	0.7542	0.8036	0.7549	105912

```

=== TEST (threshold=0.5) ===
Accuracy: 0.8139338427222249
ROC AUC : 0.7556135134157711
Confusion matrix:
[[ 2784 17116]
 [ 2487 82968]]

```

Report:

	precision	recall	f1-score	support
0.0	0.5282	0.1399	0.2212	19900
1.0	0.8290	0.9709	0.8943	85455
accuracy			0.8139	105355
macro avg	0.6786	0.5554	0.5578	105355
weighted avg	0.7722	0.8139	0.7672	105355

10 Decision rule for maintenance

```

[11]: BETA = 0.15 # <-- change this value (e.g., 0.15, 0.20, 0.25)

def maintenance_decision(p_survive, beta=BETA):
    p_fail = 1.0 - p_survive
    trigger = (p_fail > beta).astype(int) # 1 = trigger maintenance (predict
    ↪ failure)
    y_pred = 1 - trigger # convert to predicted y (1 survive, 0 fail)
    return trigger, p_fail, y_pred

def eval_maintenance(name, y_true, p_survive, beta=BETA):
    trigger, p_fail, y_pred = maintenance_decision(p_survive, beta=beta)
    acc = accuracy_score(y_true, y_pred)
    auc = roc_auc_score(y_true, p_survive) if len(np.unique(y_true)) > 1 else
    ↪ np.nan

    print(f"\n=== {name} (maintenance rule, beta={beta}) ===")
    print("Triggered maintenance:", int(trigger.sum()), "of", len(trigger),
    ↪ f"({trigger.mean():.1%})")
    print("Accuracy:", acc)
    print("ROC AUC :", auc, "(AUC independent of beta)")
    print("Confusion matrix (y=0 fail, y=1 survive):\n",
    ↪ confusion_matrix(y_true, y_pred))
    print("\nReport:\n", classification_report(y_true, y_pred, digits=4))

    return trigger, p_fail, y_pred

```

```

trigger_val, p_fail_val, y_pred_val = eval_maintenance("VAL", y_val,  $\alpha$ 
↪p_val_mean, beta=BETA)
trigger_test, p_fail_test, y_pred_test = eval_maintenance("TEST", y_test,  $\alpha$ 
↪p_test_mean, beta=BETA)

```

```

=== VAL (maintenance rule, beta=0.15) ===
Triggered maintenance: 54462 of 105912 (51.4%)
Accuracy: 0.6136320719087545
ROC AUC : 0.758414951888521 (AUC independent of beta)
Confusion matrix (y=0 fail, y=1 survive):
[[17025  3484]
 [37437 47966]]

```

Report:

	precision	recall	f1-score	support
0.0	0.3126	0.8301	0.4542	20509
1.0	0.9323	0.5616	0.7010	85403
accuracy			0.6136	105912
macro avg	0.6224	0.6959	0.5776	105912
weighted avg	0.8123	0.6136	0.6532	105912

```

=== TEST (maintenance rule, beta=0.15) ===
Triggered maintenance: 55546 of 105355 (52.7%)
Accuracy: 0.5955388923164538
ROC AUC : 0.7556135134157711 (AUC independent of beta)
Confusion matrix (y=0 fail, y=1 survive):
[[16417  3483]
 [39129 46326]]

```

Report:

	precision	recall	f1-score	support
0.0	0.2956	0.8250	0.4352	19900
1.0	0.9301	0.5421	0.6850	85455
accuracy			0.5955	105355
macro avg	0.6128	0.6835	0.5601	105355
weighted avg	0.8102	0.5955	0.6378	105355

11 Inspect which features matter

```
[12]: import numpy as np

print("\nFailure risk distribution (TEST):")
for q in [1, 5, 10, 25, 50, 75, 90, 95, 99]:
    print(f"{q:>2d}th percentile:", float(np.percentile(p_fail_test, q)))
print("Mean:", float(np.mean(p_fail_test)))
print("Median:", float(np.median(p_fail_test)))
```

```
Failure risk distribution (TEST):
 1th percentile: 0.0040000081062316895
 5th percentile: 0.012000024318695068
10th percentile: 0.022000014781951904
25th percentile: 0.054000020027160645
50th percentile: 0.16200000047683716
75th percentile: 0.28200000524520874
90th percentile: 0.4100000262260437
95th percentile: 0.5019999742507935
99th percentile: 0.6139999628067017
Mean: 0.1898721158504486
Median: 0.16200000047683716
```

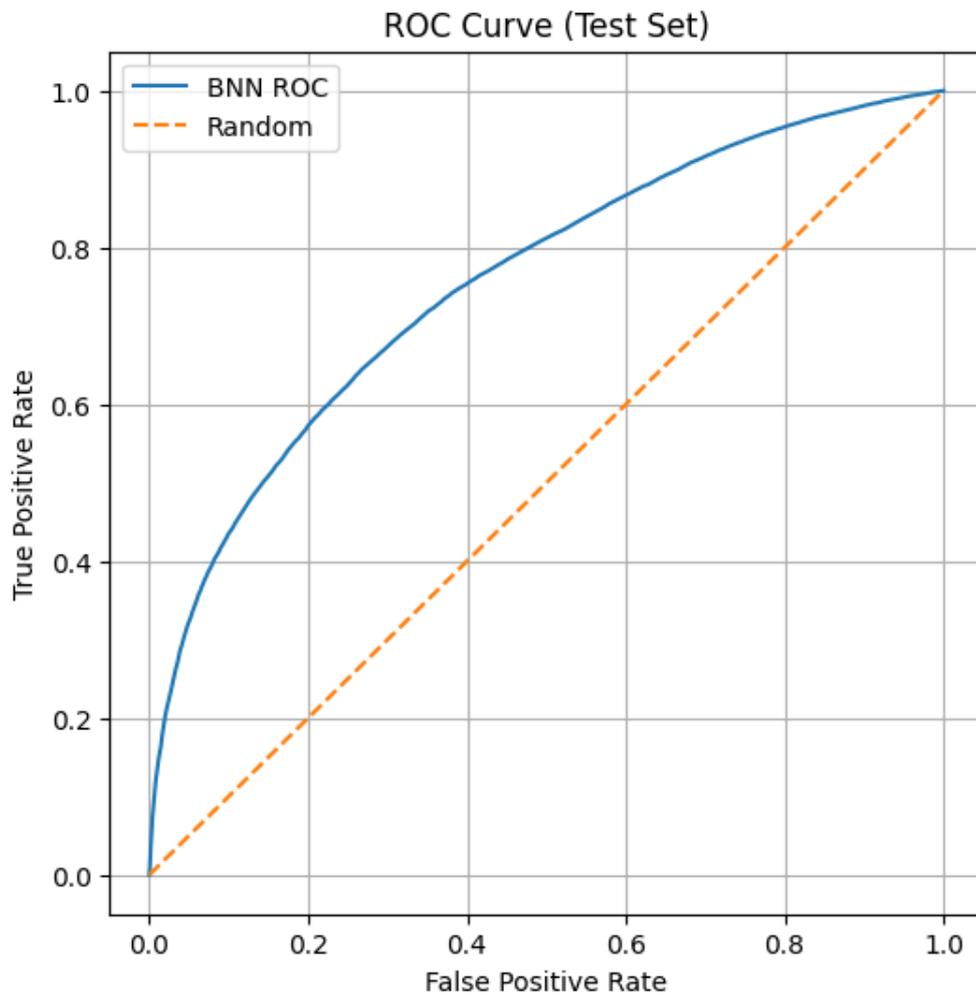
12 ROC curve

```
[13]: from sklearn.metrics import roc_curve

fpr, tpr, thresholds = roc_curve(y_test, p_test_mean)
```

```
[14]: import matplotlib.pyplot as plt

plt.figure(figsize=(6,6))
plt.plot(fpr, tpr, label="BNN ROC")
plt.plot([0,1], [0,1], linestyle="--", label="Random")
plt.xlabel("False Positive Rate")
plt.ylabel("True Positive Rate")
plt.title("ROC Curve (Test Set)")
plt.legend()
plt.grid(True)
plt.show()
```



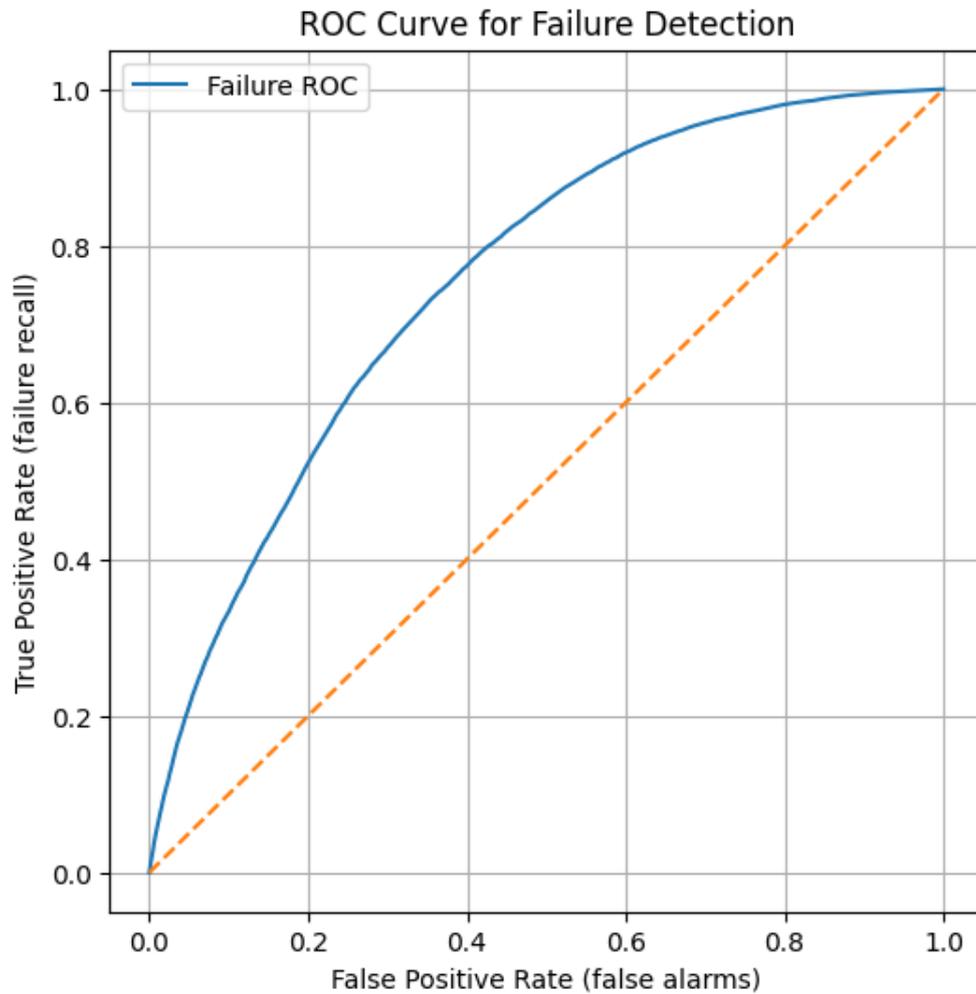
13 ROC for failure

```
[15]: p_fail_test = 1 - p_test_mean # failure probability

fpr_fail, tpr_fail, thresholds_fail = roc_curve(
    (y_test == 0).astype(int), # positive class = failure
    p_fail_test
)

plt.figure(figsize=(6,6))
plt.plot(fpr_fail, tpr_fail, label="Failure ROC")
plt.plot([0,1], [0,1], linestyle="--")
plt.xlabel("False Positive Rate (false alarms)")
plt.ylabel("True Positive Rate (failure recall)")
```

```
plt.title("ROC Curve for Failure Detection")
plt.legend()
plt.grid(True)
plt.show()
```



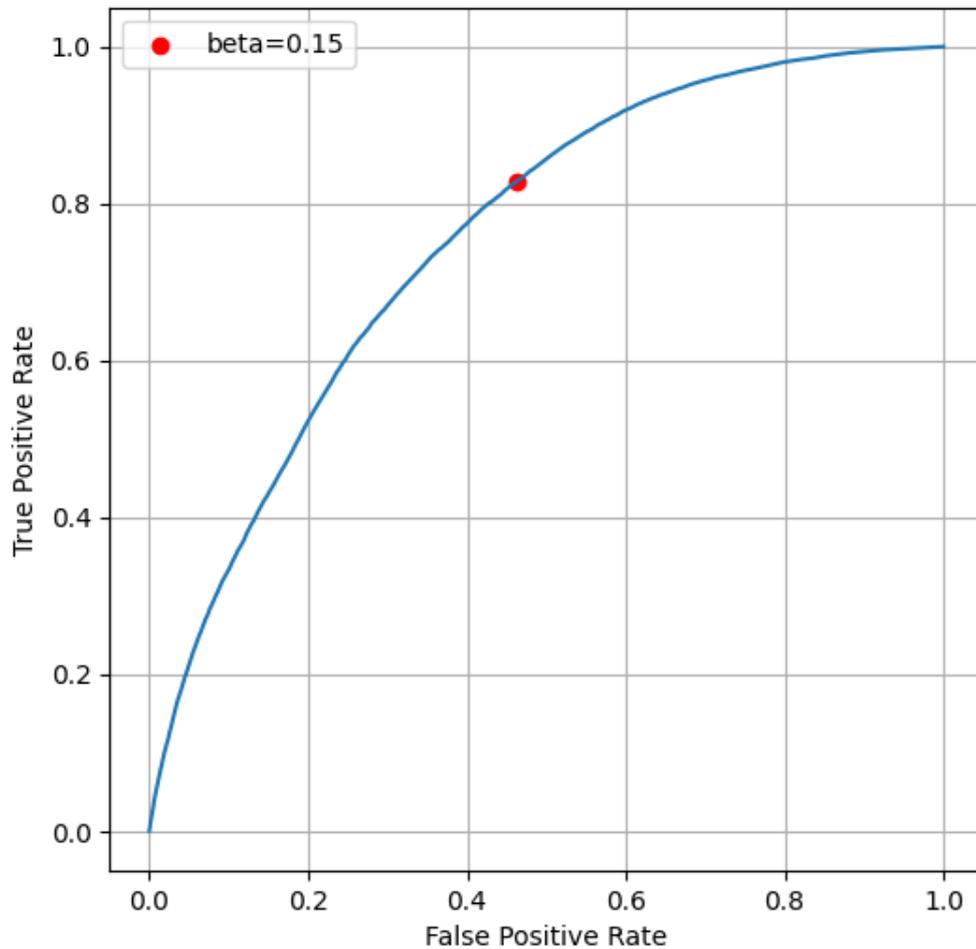
14 mapping

```
[16]: for i in range(0, len(thresholds_fail), len(thresholds_fail)//10):
      print(
          "Threshold (failure prob):", round(thresholds_fail[i], 3),
          " | Failure Recall:", round(tpr_fail[i], 3),
          " | False Alarm Rate:", round(fpr_fail[i], 3)
      )
```

```
Threshold (failure prob): inf | Failure Recall: 0.0 | False Alarm Rate: 0.0
Threshold (failure prob): 0.666 | Failure Recall: 0.01 | False Alarm Rate:
0.001
Threshold (failure prob): 0.592 | Failure Recall: 0.049 | False Alarm Rate:
0.008
Threshold (failure prob): 0.518 | Failure Recall: 0.121 | False Alarm Rate:
0.025
Threshold (failure prob): 0.444 | Failure Recall: 0.211 | False Alarm Rate:
0.05
Threshold (failure prob): 0.37 | Failure Recall: 0.307 | False Alarm Rate:
0.087
Threshold (failure prob): 0.296 | Failure Recall: 0.465 | False Alarm Rate:
0.17
Threshold (failure prob): 0.222 | Failure Recall: 0.675 | False Alarm Rate:
0.304
Threshold (failure prob): 0.148 | Failure Recall: 0.832 | False Alarm Rate:
0.469
Threshold (failure prob): 0.074 | Failure Recall: 0.938 | False Alarm Rate:
0.643
Threshold (failure prob): 0.0 | Failure Recall: 1.0 | False Alarm Rate: 1.0
```

```
[17]: beta = 0.15
      idx = np.argmin(np.abs(thresholds_fail - beta))

      plt.figure(figsize=(6,6))
      plt.plot(fpr_fail, tpr_fail)
      plt.scatter(fpr_fail[idx], tpr_fail[idx], color="red", label=f"beta={beta}")
      plt.xlabel("False Positive Rate")
      plt.ylabel("True Positive Rate")
      plt.legend()
      plt.grid(True)
      plt.show()
```



```
[18]: # Figure 1 - posterior  $p(\text{survive})$  for ONE test sample (credible interval)
import numpy as np
import torch
import matplotlib.pyplot as plt
from pyro.infer import Predictive

@torch.no_grad()
def posterior_predict_p_survive_samples(model, guide, x_tensor,
    num_samples=1000):
    predictive = Predictive(model, guide=guide, num_samples=num_samples,
    return_sites=("_RETURN",))
    logits_s = predictive(x_tensor, y=None)["_RETURN"] # [S, N]
    p_s = torch.sigmoid(logits_s).cpu().numpy() # [S, N]
    return p_s

# choose one representative test index
```

```

i = 0 # change if desired
x_star = X_test_t[i:i+1]

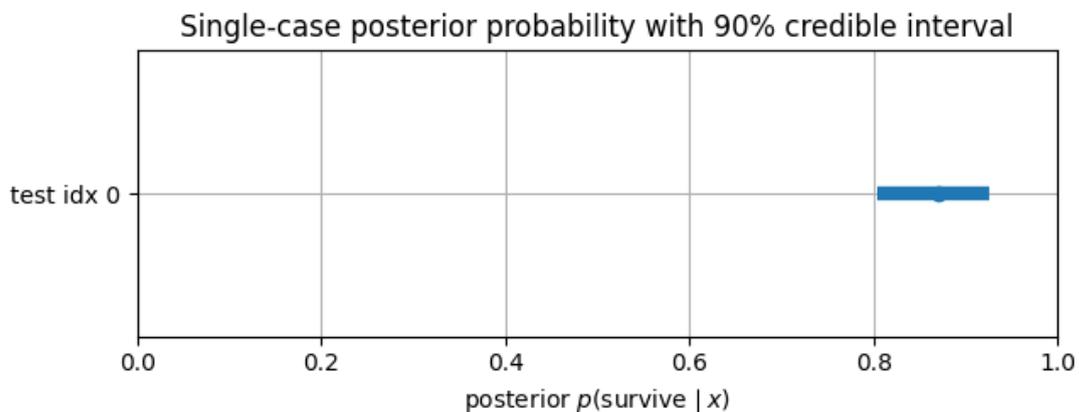
p_s = posterior_predict_p_survive_samples(model, guide, x_star,
↳ num_samples=2000).reshape(-1)

p_mean = float(np.mean(p_s))
p_lo = float(np.quantile(p_s, 0.05))
p_hi = float(np.quantile(p_s, 0.95))

plt.figure(figsize=(7, 2.2))
plt.hlines(1, p_lo, p_hi, linewidth=6)
plt.plot([p_mean], [1], marker="o")
plt.yticks([1], [f"test idx {i}"])
plt.xlim(0, 1)
plt.xlabel("posterior  $p(\text{survive} \mid x)$ ")
plt.title("Single-case posterior probability with 90% credible interval")
plt.grid(True)
plt.show()

print("Posterior summary:")
print("mean:", p_mean, " 5%:", p_lo, " 95%:", p_hi)

```



Posterior summary:
mean: 0.8711585402488708 5%: 0.8036723732948303 95%: 0.9256730079650879

```

[19]: # Figure 2 - calibration curve (test set)
import numpy as np
import matplotlib.pyplot as plt

p = np.asarray(p_test_mean).astype(float)
y = np.asarray(y_test).astype(int)

```

```

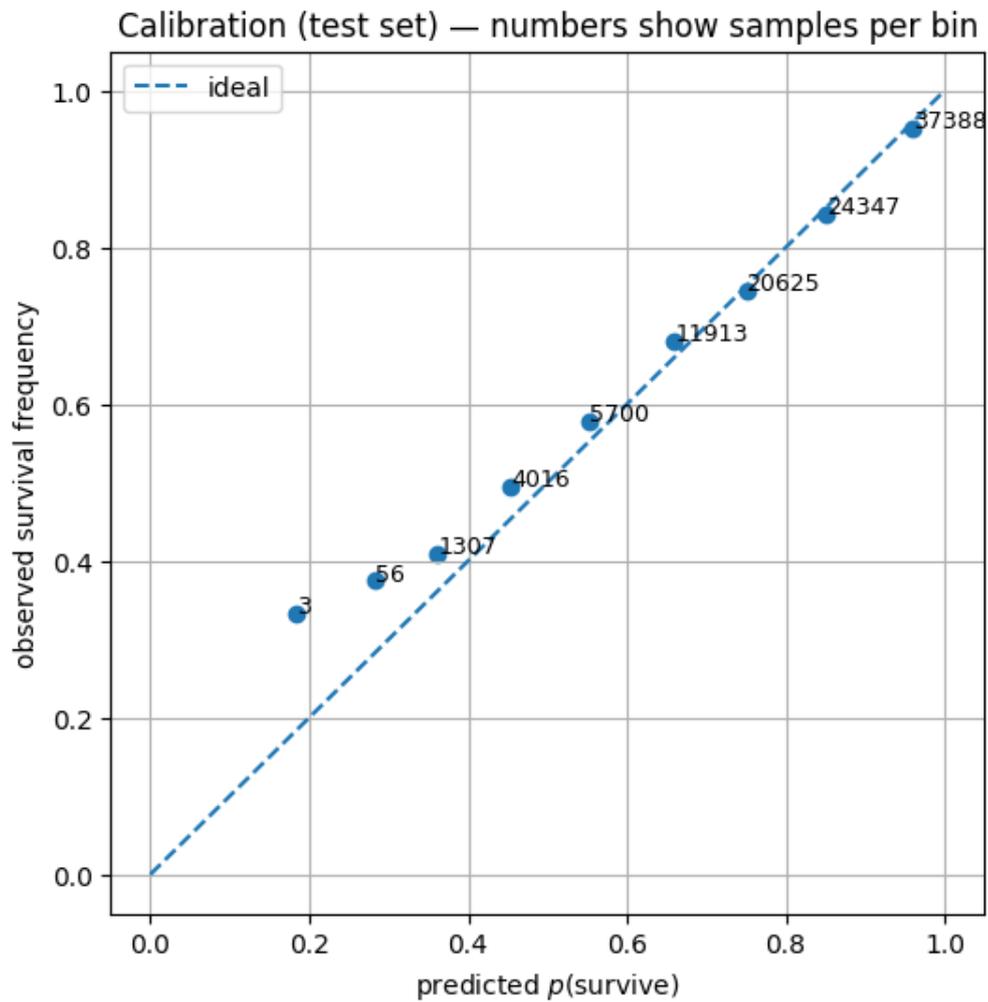
n_bins = 10
bins = np.linspace(0.0, 1.0, n_bins + 1)
bin_id = np.digitize(p, bins[1:-1], right=True)

p_bin = np.array([p[bin_id==k].mean() if np.any(bin_id==k) else np.nan for k in
↳range(n_bins)])
y_bin = np.array([y[bin_id==k].mean() if np.any(bin_id==k) else np.nan for k in
↳range(n_bins)])
n_bin = np.array([int(np.sum(bin_id==k)) for k in range(n_bins)])

plt.figure(figsize=(6,6))
plt.plot([0,1],[0,1], linestyle="--", label="ideal")
plt.scatter(p_bin, y_bin)
for k in range(n_bins):
    if not np.isnan(p_bin[k]):
        plt.text(p_bin[k], y_bin[k], str(n_bin[k]), fontsize=9)

plt.xlabel("predicted $p(\mathrm{survive})$")
plt.ylabel("observed survival frequency")
plt.title("Calibration (test set) - numbers show samples per bin")
plt.grid(True)
plt.legend()
plt.show()

```



```
[20]: # Figure 3 - confusion matrix under beta decision rule (test set)
import numpy as np
import matplotlib.pyplot as plt
from sklearn.metrics import confusion_matrix, ConfusionMatrixDisplay, \
    ↪classification_report

beta = BETA # uses your notebook constant
y = np.asarray(y_test).astype(int)
p_survive = np.asarray(p_test_mean).astype(float)

y_pred, trigger, score = maintenance_decision(p_survive, beta=beta)

cm = confusion_matrix(y, y_pred, labels=[0,1])
```

```

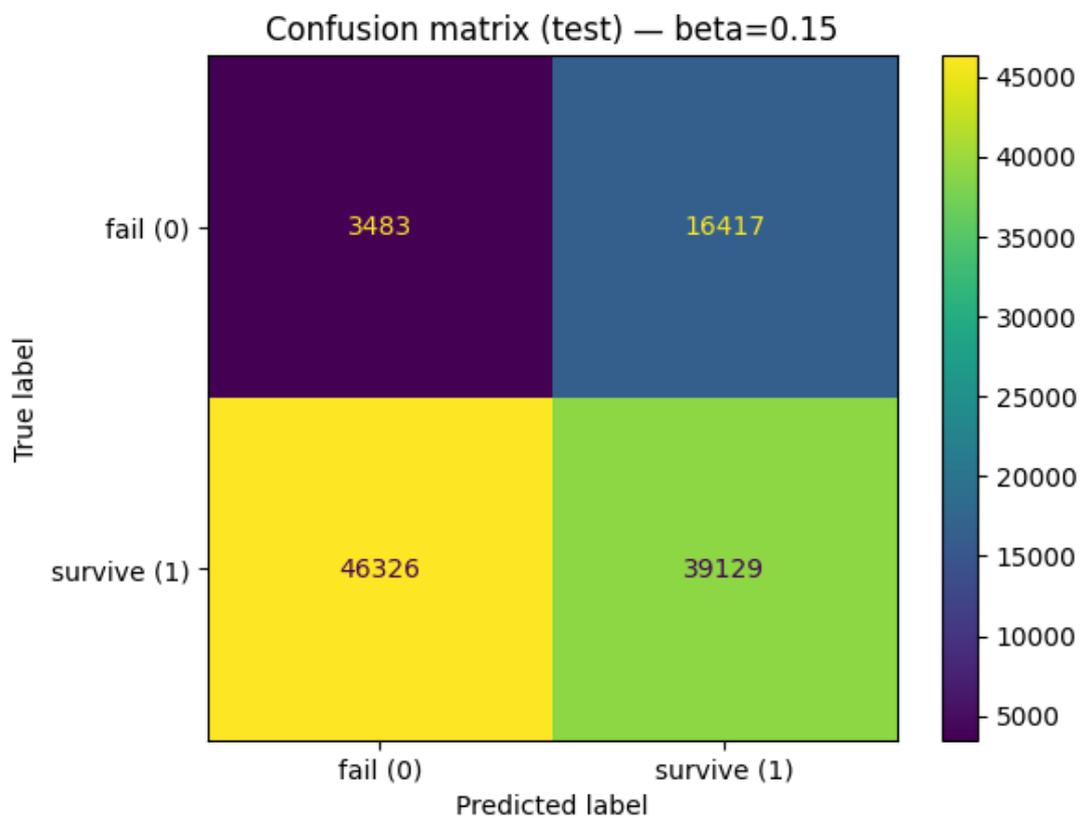
disp = ConfusionMatrixDisplay(confusion_matrix=cm, display_labels=["fail (0)",
↪ "survive (1)"])

plt.figure(figsize=(5.5,5.5))
disp.plot(values_format="d")
plt.title(f"Confusion matrix (test) - beta={beta}")
plt.grid(False)
plt.show()

print(classification_report(y, y_pred, target_names=["fail (0)", "survive_
↪ (1)"]))
print("Triggered maintenance count:", int(np.sum(trigger)))

```

<Figure size 550x550 with 0 Axes>



	precision	recall	f1-score	support
fail (0)	0.07	0.18	0.10	19900
survive (1)	0.70	0.46	0.56	85455
accuracy			0.40	105355

macro avg	0.39	0.32	0.33	105355
weighted avg	0.58	0.40	0.47	105355

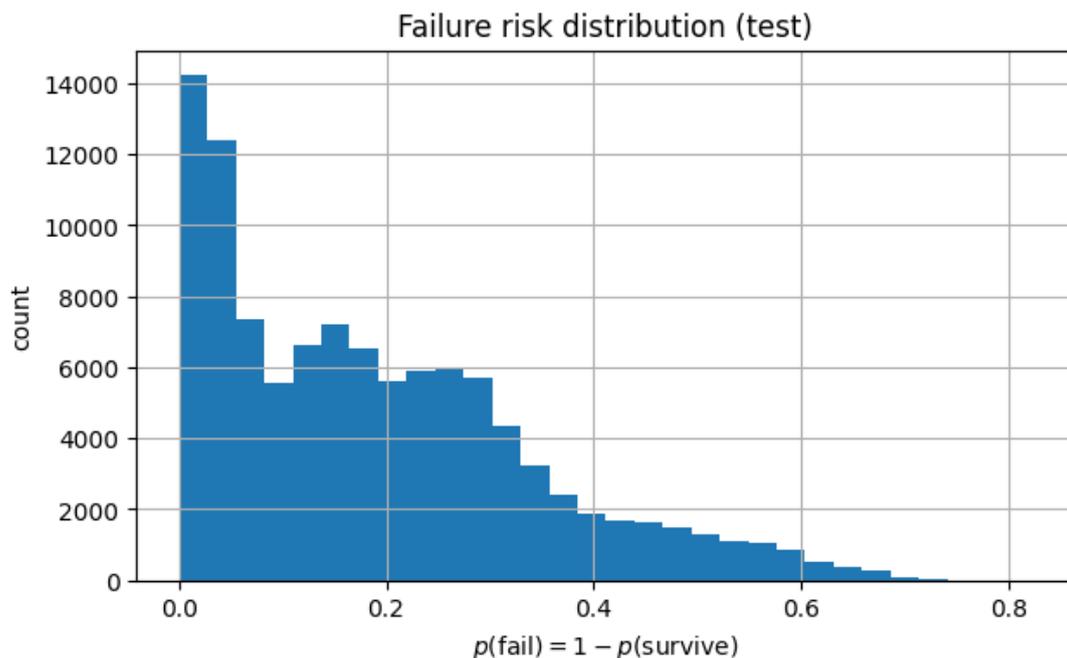
Triggered maintenance count: 20003

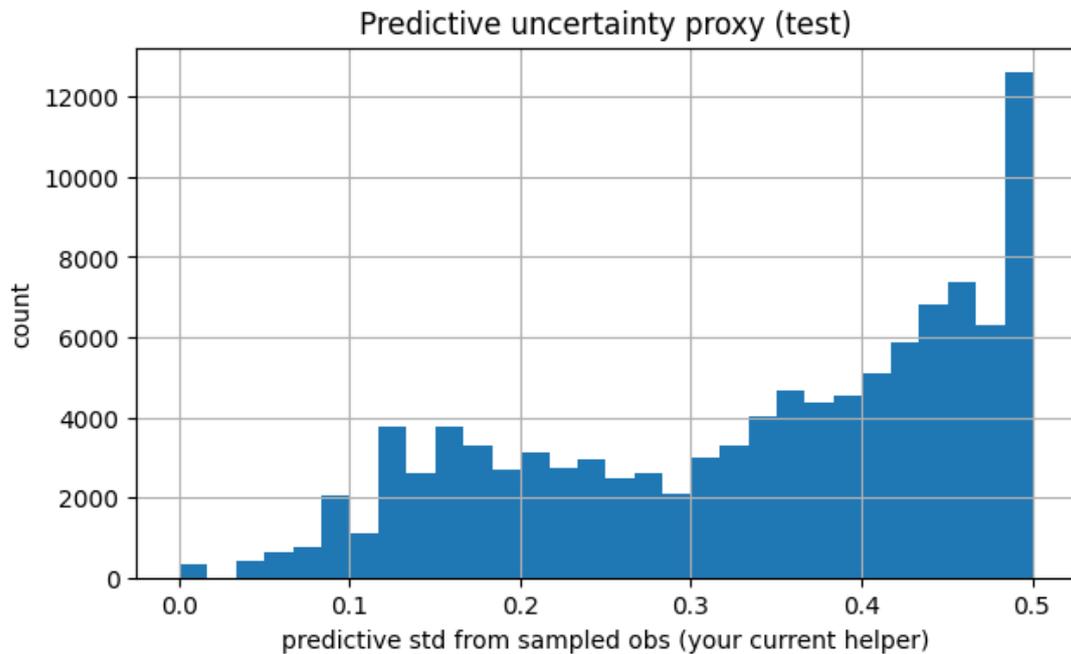
```
[21]: # Figure 4 - distributions: failure risk and predictive uncertainty (test set)
import numpy as np
import matplotlib.pyplot as plt

p_fail = 1.0 - np.asarray(p_test_mean).astype(float)
p_unc = np.asarray(p_test_std).astype(float)

plt.figure(figsize=(7,4))
plt.hist(p_fail, bins=30)
plt.xlabel("$p(\mathrm{fail}) = 1 - p(\mathrm{survive})$")
plt.ylabel("count")
plt.title("Failure risk distribution (test)")
plt.grid(True)
plt.show()

plt.figure(figsize=(7,4))
plt.hist(p_unc, bins=30)
plt.xlabel("predictive std from sampled obs (your current helper)")
plt.ylabel("count")
plt.title("Predictive uncertainty proxy (test)")
plt.grid(True)
plt.show()
```





```
[22]: # Table 1 - test metrics summary (single row)
import numpy as np
import pandas as pd
from sklearn.metrics import accuracy_score, roc_auc_score, precision_score,
    recall_score, f1_score

beta = BETA
y = np.asarray(y_test).astype(int)
p_survive = np.asarray(p_test_mean).astype(float)

y_pred, trigger, score = maintenance_decision(p_survive, beta=beta)

row = {
    "Split": "Test",
    "N": int(len(y)),
    "beta": float(beta),
    "Accuracy": float(accuracy_score(y, y_pred)),
    "AUC_survive": float(roc_auc_score(y, p_survive)) if len(np.unique(y)) > 1
    else np.nan,
    "Precision_survive": float(precision_score(y, y_pred, zero_division=0)),
    "Recall_survive": float(recall_score(y, y_pred, zero_division=0)),
    "F1_survive": float(f1_score(y, y_pred, zero_division=0)),
}
```

```

    "Triggered_maint_count": int(np.sum(trigger)),
    "Triggered_rate": float(np.mean(trigger)),
    "Mean_p_fail": float(np.mean(1.0 - p_survive)),
}
pd.DataFrame([row])

```

```

[22]: Split      N  beta  Accuracy  AUC_survive  Precision_survive \
0  Test  105355  0.15  0.404461    0.755614          0.704443

      Recall_survive  F1_survive  Triggered_maint_count  Triggered_rate \
0          0.45789    0.555017          20003          0.189872

      Mean_p_fail
0          0.189872

```

```

[23]: # Table 2 - metrics by Run (test set)
import numpy as np
import pandas as pd
from sklearn.metrics import accuracy_score, roc_auc_score

beta = BETA
tmp = df_test.copy()
tmp["p_survive"] = np.asarray(p_test_mean).astype(float)
tmp["p_fail"] = 1.0 - tmp["p_survive"]

y_pred, trigger, score = maintenance_decision(p_survive, beta=beta)

tmp["y_pred"] = y_pred
tmp["trigger"] = trigger

rows = []
for run, g in tmp.groupby("Run"):
    y = g["y"].astype(int).values
    p = g["p_survive"].values
    yp = g["y_pred"].astype(int).values
    rows.append({
        "Run": run,
        "N": int(len(g)),
        "Acc": float(accuracy_score(y, yp)),
        "AUC_survive": float(roc_auc_score(y, p)) if len(np.unique(y)) > 1 else
↳ np.nan,
        "Triggered_rate": float(g["trigger"].mean()),
        "Mean_p_fail": float(g["p_fail"].mean()),
    })

pd.DataFrame(rows).sort_values("Run").reset_index(drop=True)

```

[23]:	Run	N	Acc	AUC_survive	Triggered_rate	Mean_p_fail
0	5	1925	0.421818	0.706382	0.304296	0.304296
1	10	1930	0.417617	0.714826	0.306221	0.306221
2	15	1930	0.423834	0.708019	0.311719	0.311719
3	20	1931	0.424650	0.697458	0.312485	0.312485
4	25	1931	0.426722	0.702645	0.313816	0.313816
5	30	2000	0.435000	0.678118	0.207291	0.207291
6	35	2014	0.457299	0.661725	0.220692	0.220692
7	40	2016	0.458333	0.672108	0.222324	0.222324
8	45	2017	0.469013	0.661809	0.229453	0.229453
9	50	2018	0.463330	0.676546	0.230839	0.230839
10	55	2018	0.572349	0.603579	0.223360	0.223360
11	60	2026	0.580454	0.638263	0.217427	0.217427
12	65	2026	0.591313	0.636814	0.219941	0.219941
13	70	2026	0.584896	0.629105	0.218879	0.218879
14	75	2026	0.588351	0.632870	0.217519	0.217519
15	80	2041	0.394904	0.659302	0.127253	0.127253
16	85	2167	0.399631	0.558204	0.128920	0.128920
17	90	2172	0.417587	0.609669	0.136355	0.136355
18	95	2172	0.434162	0.601150	0.138461	0.138461
19	100	2172	0.447974	0.600033	0.139992	0.139992
20	105	1811	0.067366	0.572271	0.048447	0.048447
21	110	1811	0.061292	0.571271	0.047228	0.047228
22	115	1811	0.065157	0.544245	0.047111	0.047111
23	120	1811	0.062396	0.560596	0.046317	0.046317
24	125	1811	0.059636	0.574244	0.046702	0.046702
25	130	1914	0.019854	0.627248	0.019809	0.019809
26	135	1914	0.019331	0.659693	0.018405	0.018405
27	140	1914	0.018809	0.624749	0.018297	0.018297
28	145	1914	0.018809	0.631878	0.018328	0.018328
29	150	1914	0.018809	0.709457	0.018732	0.018732
30	155	2041	0.492896	0.718736	0.354843	0.354843
31	160	2062	0.519884	0.719249	0.383130	0.383130
32	165	2063	0.517693	0.719436	0.382314	0.382314
33	170	2063	0.520116	0.718100	0.383695	0.383695
34	175	2063	0.518662	0.722323	0.383638	0.383638
35	180	2041	0.543851	0.657491	0.211748	0.211748
36	185	2170	0.543779	0.646698	0.212446	0.212446
37	190	2204	0.587114	0.639146	0.231963	0.231963
38	195	2207	0.590847	0.644433	0.230942	0.230942
39	200	2207	0.593113	0.626055	0.233568	0.233568
40	205	1975	0.508354	0.646499	0.218407	0.218407
41	210	1967	0.512456	0.622814	0.217188	0.217188
42	215	1988	0.518612	0.650333	0.221963	0.221963
43	220	2042	0.598923	0.608989	0.216426	0.216426
44	225	2057	0.604278	0.594501	0.214280	0.214280
45	230	2064	0.614826	0.619715	0.215396	0.215396

46	235	2138	0.388681	0.630041	0.132909	0.132909
47	240	2154	0.374652	0.644335	0.128067	0.128067
48	245	2156	0.410946	0.600122	0.133071	0.133071
49	250	2170	0.326267	0.601908	0.113926	0.113926
50	255	2170	0.329032	0.575974	0.115563	0.115563
51	260	2170	0.262673	0.617638	0.103920	0.103920

```
[24]: # --- Survival-BNN calibration (binary): reliability diagram + optional ECE ---
# Requires:
#   p_test_mean : (N,) posterior mean p(survive) on TEST
#   y_test      : (N,) true labels in {0,1} where 1=survive, 0=fail

import numpy as np
import matplotlib.pyplot as plt

# --- inputs ---
p = np.asarray(p_test_mean, dtype=float).reshape(-1)
y = np.asarray(y_test, dtype=int).reshape(-1)
assert p.shape[0] == y.shape[0], "p_test_mean and y_test must have the same
↳length"
assert np.all((p >= 0) & (p <= 1)), "Probabilities must be in [0,1]"
assert set(np.unique(y)).issubset({0, 1}), "y_test must be binary {0,1}"

# --- binning ---
n_bins = 10
edges = np.linspace(0.0, 1.0, n_bins + 1)
bin_id = np.digitize(p, edges[1:-1], right=True) # 0..n_bins-1

p_bin = np.full(n_bins, np.nan, dtype=float) # mean predicted prob per bin
y_bin = np.full(n_bins, np.nan, dtype=float) # observed frequency per bin
n_bin = np.zeros(n_bins, dtype=int) # sample count per bin

for k in range(n_bins):
    mask = (bin_id == k)
    n_bin[k] = int(mask.sum())
    if n_bin[k] > 0:
        p_bin[k] = float(p[mask].mean())
        y_bin[k] = float(y[mask].mean())

# --- optional: Expected Calibration Error (ECE) ---
ece = 0.0
N = len(y)
for k in range(n_bins):
    if n_bin[k] > 0 and np.isfinite(p_bin[k]) and np.isfinite(y_bin[k]):
        ece += (n_bin[k] / N) * abs(y_bin[k] - p_bin[k])

# --- plot ---
```

```

plt.figure(figsize=(6.2, 6.2))
plt.plot([0, 1], [0, 1], linestyle="--", linewidth=2, label="Ideal (y=x)")

mask = np.isfinite(p_bin) & np.isfinite(y_bin)
plt.scatter(p_bin[mask], y_bin[mask])

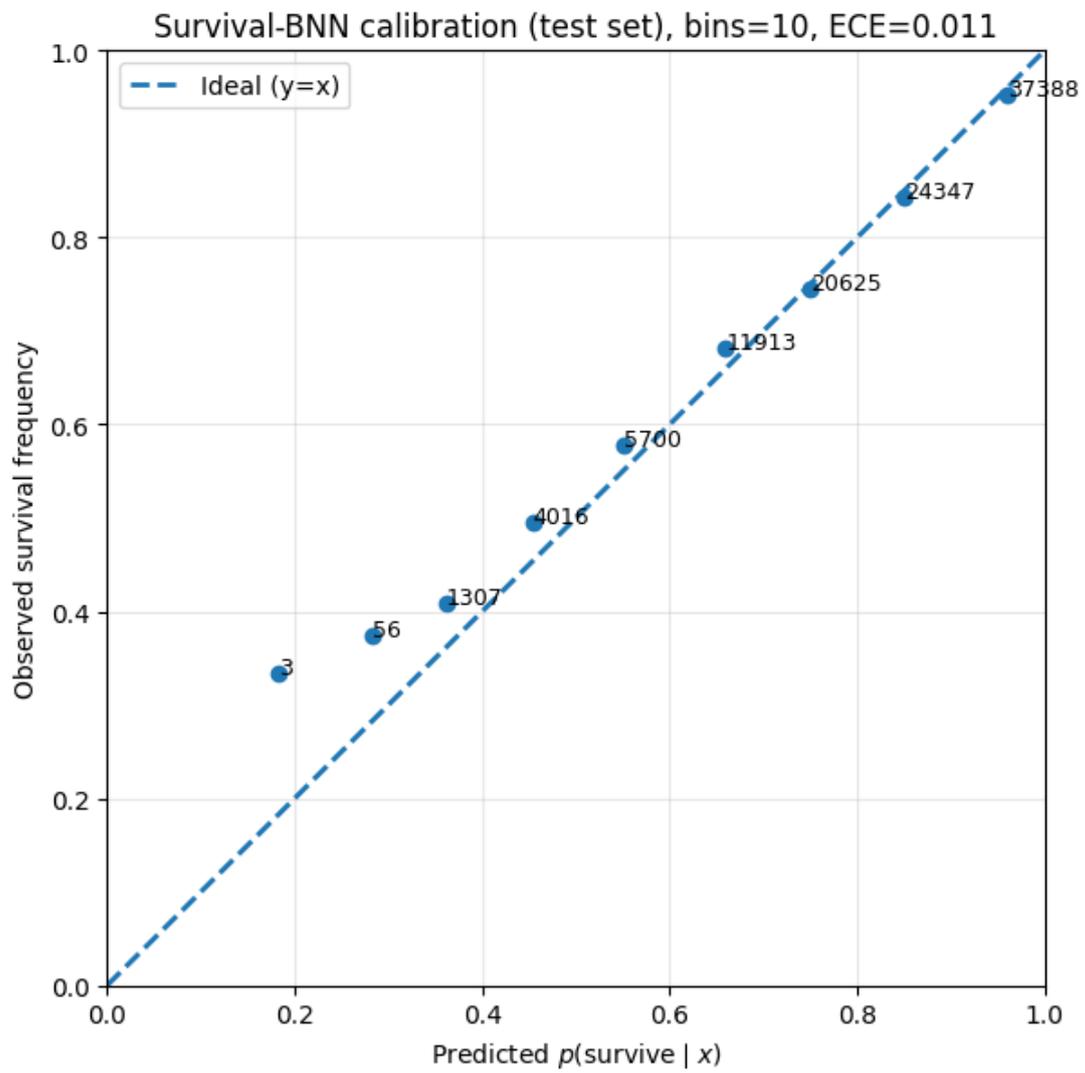
# annotate bins with sample count (as in your script)
for k in range(n_bins):
    if np.isfinite(p_bin[k]):
        plt.text(p_bin[k], y_bin[k], str(n_bin[k]), fontsize=9)

plt.xlabel(r"Predicted  $p(\mathrm{survive} \mid x)$ ")
plt.ylabel("Observed survival frequency")
plt.title(f"Survival-BNN calibration (test set), bins={n_bins}, ECE={ece:.3f}")
plt.xlim(0, 1)
plt.ylim(0, 1)
plt.grid(True, alpha=0.3)
plt.legend()
plt.tight_layout()
plt.show()

print(f"ECE (test, n_bins={n_bins}): {ece:.6f}")

# Optional: save for thesis inclusion (vector preferred)
# plt.savefig("survival_bnn_calibration_test.pdf", bbox_inches="tight") # PDF
# ↪ vector
# plt.savefig("survival_bnn_calibration_test.png", bbox_inches="tight",
# ↪ dpi=300) # high-res raster

```



ECE (test, n_bins=10): 0.011176

E Policy-BNN Notebook

policy_BNN

February 27, 2026

1 Load tables and join

```
[1]: import sqlite3
import pandas as pd

DB_PATH = "normalized_Exp_DB_892.db"

def read_table(name):
    with sqlite3.connect(DB_PATH) as con:
        return pd.read_sql_query(f"SELECT * FROM {name};", con)

df_train = read_table("BNN_Train")
df_val = read_table("BNN_Val")
df_test = read_table("BNN_Test")

df_run = read_table("Run")          # RunID, ExperimentID, RunNo
df_exp = read_table("Experiment")  # ExperimentID, ExpNr, ...

print(df_train.shape, df_val.shape, df_test.shape)
print(df_run.columns)
print(df_exp.columns)

(319442, 18) (105912, 18) (105355, 18)
Index(['RunID', 'ExperimentID', 'RunNo'], dtype='str')
Index(['ExperimentID', 'ExpNr', 'Availability', 'Distribution - Duration',
       'MTTR', 'Sigma', 'Distribution - Interval', 'Mu', 'Beta', 'Eta',
       'Interval Time', 'Repair Time', 'Brooker active', 'Nominal CT',
       'Customer CT', 'Max CT', 'Rho'],
      dtype='str')
```

2 Add ExpNr into each BNN table

```
[2]: def attach_experiment_label(df_bnn, df_run, df_exp):
    df = df_bnn.merge(df_run[["RunID", "ExperimentID"]], left_on="Run",
        ↪right_on="RunID", how="left")
    df = df.merge(df_exp[["ExperimentID", "ExpNr"]], on="ExperimentID",
        ↪how="left")
```

```

miss = df["ExpNr"].isna().mean()
print(f"Missing ExpNr after join: {miss:.3%}")

return df

df_train = attach_experiment_label(df_train, df_run, df_exp)
df_val = attach_experiment_label(df_val, df_run, df_exp)
df_test = attach_experiment_label(df_test, df_run, df_exp)

df_train[["Run", "RunID", "ExperimentID", "ExpNr"]].head()

```

```

Missing ExpNr after join: 0.000%
Missing ExpNr after join: 0.000%
Missing ExpNr after join: 0.000%

```

```

[2]:
  Run  RunID  ExperimentID  ExpNr
0    1     1             1  Exp_A_79_DC
1    1     1             1  Exp_A_79_DC
2    1     1             1  Exp_A_79_DC
3    1     1             1  Exp_A_79_DC
4    1     1             1  Exp_A_79_DC

```

3 Map ExpNr to policy class (C2 / B / C1)

```

[3]: import numpy as np

def expnr_to_policy_class(expnr: str):
    s = str(expnr).upper()
    if "_C2_" in s or "C2" in s:
        return 0
    if "_B_" in s or "EXP_B_" in s:
        return 1
    if "_C1_" in s or "C1" in s:
        return 2
    return np.nan

for df in (df_train, df_val, df_test):
    df["policy_class"] = df["ExpNr"].apply(expnr_to_policy_class)

print("Unmapped rows (train/val/test):",
      df_train["policy_class"].isna().sum(),
      df_val["policy_class"].isna().sum(),
      df_test["policy_class"].isna().sum())

df_train = df_train.dropna(subset=["policy_class"]).copy()
df_val = df_val.dropna(subset=["policy_class"]).copy()

```

```

df_test = df_test.dropna(subset=["policy_class"]).copy()

df_train["policy_class"] = df_train["policy_class"].astype(int)
df_val["policy_class"] = df_val["policy_class"].astype(int)
df_test["policy_class"] = df_test["policy_class"].astype(int)

print(df_train["policy_class"].value_counts())

```

Unmapped rows (train/val/test): 137022 45325 44763

policy_class

0 63697

1 62593

2 56130

Name: count, dtype: int64

4 Build features

```

[4]: TARGET_COL = "policy_class"
DROP_COLS = {"y", "Run", "RunID", "ExperimentID", "ExpNr", TARGET_COL}

def prepare_features(df):
    df = df.copy()

    # Ensure numeric columns are numeric
    if "TimeSinceMaintEnd" in df.columns:
        df["TimeSinceMaintEnd"] = pd.to_numeric(df["TimeSinceMaintEnd"],
        errors="coerce")

    feature_cols = []
    for c in df.columns:
        if c in DROP_COLS:
            continue
        if pd.api.types.is_numeric_dtype(df[c]):
            feature_cols.append(c)

    for c in feature_cols:
        if df[c].isna().any():
            df[c] = df[c].fillna(df[c].median())

    return df, feature_cols

df_train, FEATURE_COLS = prepare_features(df_train)
df_val, _ = prepare_features(df_val)
df_test, _ = prepare_features(df_test)

print("Features:", FEATURE_COLS)

```

```
print("Train class balance:\n", df_train[TARGET_COL].
      ↪value_counts(normalize=True))
```

```
Features: ['In_EndTimeStamp', 'Dt_ToNextMaint', 'DeltaT', 'CT_Median_In',
           'CT_IQR_In', 'CT_P95_In', 'CT_Median_Out', 'CT_IQR_Out', 'CT_P95_Out',
           'DowntimeWin', 'FailCountWin', 'MTTRWin', 'TimeSinceFailEnd',
           'HasFailureHistory', 'TimeSinceMaintEnd', 'BufferLevel']
```

Train class balance:

```
policy_class
```

```
0    0.349178
```

```
1    0.343126
```

```
2    0.307697
```

```
Name: proportion, dtype: float64
```

5 Scale + tensors

```
[5]: from sklearn.preprocessing import StandardScaler
import torch

scaler = StandardScaler()
X_train = scaler.fit_transform(df_train[FEATURE_COLS].values.astype(np.float32))
X_val    = scaler.transform(df_val[FEATURE_COLS].values.astype(np.float32))
X_test   = scaler.transform(df_test[FEATURE_COLS].values.astype(np.float32))

y_train = df_train[TARGET_COL].values.astype(np.int64)
y_val    = df_val[TARGET_COL].values.astype(np.int64)
y_test   = df_test[TARGET_COL].values.astype(np.int64)

X_train_t = torch.tensor(X_train, dtype=torch.float32)
X_val_t    = torch.tensor(X_val, dtype=torch.float32)
X_test_t   = torch.tensor(X_test, dtype=torch.float32)

y_train_t = torch.tensor(y_train, dtype=torch.long)
y_val_t    = torch.tensor(y_val, dtype=torch.long)
y_test_t   = torch.tensor(y_test, dtype=torch.long)
```

6 3-class Bayesian model

```
[6]: import pyro
import pyro.distributions as dist
from pyro.nn import PyroModule, PyroSample
import torch.nn as nn

pyro.clear_param_store()
pyro.set_rng_seed(42)
torch.manual_seed(42)
```

```

class BayesianPolicyClassifier(PyroModule):
    def __init__(self, in_dim, hidden_dim=32, num_classes=3):
        super().__init__()
        self.encoder = nn.Sequential(
            nn.Linear(in_dim, hidden_dim),
            nn.ReLU(),
            nn.Linear(hidden_dim, hidden_dim),
            nn.ReLU(),
        )
        self.out = PyroModule[nn.Linear](hidden_dim, num_classes)
        self.out.weight = PyroSample(dist.Normal(0., 1.).expand([num_classes,
↳hidden_dim]).to_event(2))
        self.out.bias = PyroSample(dist.Normal(0., 1.).expand([num_classes]).
↳to_event(1))

    def forward(self, x, y=None):
        z = self.encoder(x)
        logits = self.out(z) # [N,3]
        with pyro.plate("data", x.shape[0]):
            pyro.sample("obs", dist.Categorical(logits=logits), obs=y)
        return logits

```

7 Train with SVI

```

[7]: from pyro.infer import SVI, Trace_ELBO
from pyro.infer.autoguide import AutoDiagonalNormal
import pyro
import numpy as np

model = BayesianPolicyClassifier(in_dim=X_train_t.shape[1], hidden_dim=32,
↳num_classes=3)
guide = AutoDiagonalNormal(model)

optimizer = pyro.optim.Adam({"lr": 1e-3})
svi = SVI(model, guide, optimizer, loss=Trace_ELBO())

def train_svi(num_steps=3000, print_every=200):
    """
    Trains the Pyro SVI model and returns a list of per-step ELBO losses.
    Also prints a moving average over the last `print_every` steps.
    """
    loss_history = []
    for step in range(1, num_steps + 1):
        loss = svi.step(X_train_t, y_train_t) # uses your existing training_
↳tensors

```

```

    loss_history.append(float(loss))

    if (step % print_every) == 0:
        window = loss_history[-print_every:] # last print_every losses
        print(f"step {step:5d} | loss {float(np.mean(window)):.2f}")

    return loss_history

loss_history = train_svi(num_steps=3000, print_every=200)

```

```

step   200 | loss 112782.59
step   400 | loss  41977.63
step   600 | loss  32256.24
step   800 | loss  26300.84
step  1000 | loss  22435.85
step  1200 | loss  19581.21
step  1400 | loss  17542.74
step  1600 | loss  15565.30
step  1800 | loss  14122.37
step  2000 | loss  12478.33
step  2200 | loss  11249.76
step  2400 | loss  10266.74
step  2600 | loss   9288.33
step  2800 | loss   8529.55
step  3000 | loss   7699.46

```

8 Posterior predictive class probabilities + evaluation

```

[8]: from pyro.infer import Predictive
      from sklearn.metrics import confusion_matrix, classification_report,
      accuracy_score

      @torch.no_grad()
      def posterior_class_probs(model, guide, x_tensor, num_samples=300):
          pred = Predictive(model, guide=guide, num_samples=num_samples,
          ↪return_sites=("obs",))
          y_s = pred(x_tensor, y=None)["obs"].cpu().numpy() # [S,N]
          N = y_s.shape[1]
          K = 3
          probs = np.zeros((N, K), dtype=np.float32)
          for k in range(K):
              probs[:, k] = (y_s == k).mean(axis=0)
          return probs

      def eval_multiclass(name, y_true, probs):
          y_pred = probs.argmax(axis=1)
          print(f"\n=== {name} ===")

```

```

print("Accuracy:", accuracy_score(y_true, y_pred))
print("Confusion matrix:\n", confusion_matrix(y_true, y_pred))
print("\nReport:\n", classification_report(y_true, y_pred, digits=4))
return y_pred

```

```

probs_val = posterior_class_probs(model, guide, X_val_t, num_samples=300)
probs_test = posterior_class_probs(model, guide, X_test_t, num_samples=300)

_ = eval_multiclass("VAL", y_val, probs_val)
_ = eval_multiclass("TEST", y_test, probs_test)

```

=== VAL ===

Accuracy: 0.9901959166157757

Confusion matrix:

```

[[20772  223   27]
 [  221 20501  39]
 [    6    78 18720]]

```

Report:

	precision	recall	f1-score	support
0	0.9892	0.9881	0.9886	21022
1	0.9855	0.9875	0.9865	20761
2	0.9965	0.9955	0.9960	18804
accuracy			0.9902	60587
macro avg	0.9904	0.9904	0.9904	60587
weighted avg	0.9902	0.9902	0.9902	60587

=== TEST ===

Accuracy: 0.9853941114338527

Confusion matrix:

```

[[20838  267   16]
 [  439 20359  48]
 [    6   109 18510]]

```

Report:

	precision	recall	f1-score	support
0	0.9791	0.9866	0.9828	21121
1	0.9819	0.9766	0.9792	20846
2	0.9966	0.9938	0.9952	18625
accuracy			0.9854	60592
macro avg	0.9858	0.9857	0.9858	60592
weighted avg	0.9854	0.9854	0.9854	60592

```
[9]: score = probs_test[:,2] - probs_test[:,0]
```

```
[10]: df_out = df_test.copy()
df_out["score"] = score

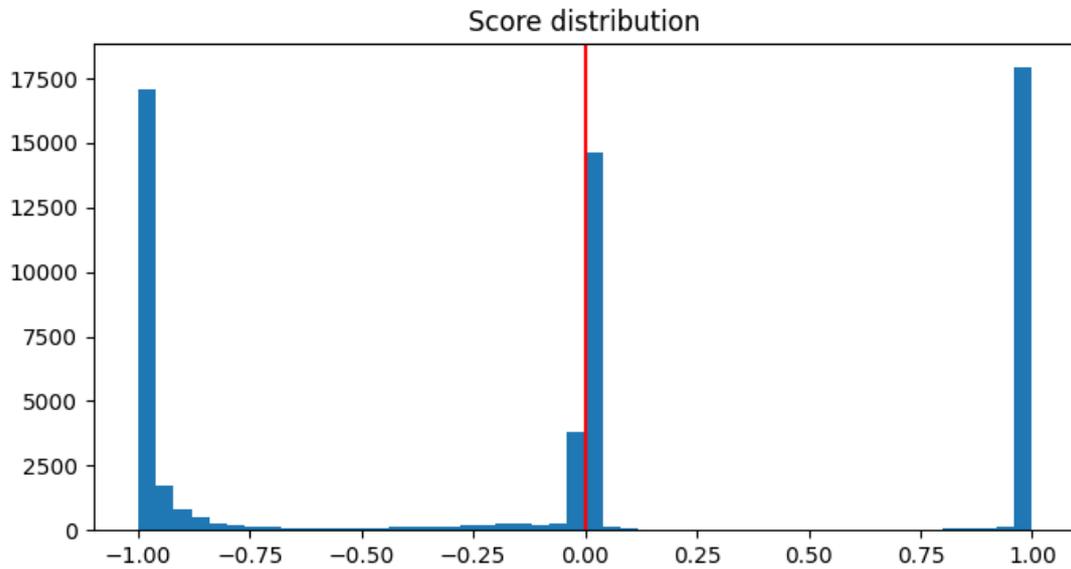
df_out.groupby("ExpNr")["score"].mean().sort_values()
```

```
[10]: ExpNr
Exp_C2_89_DC    -0.991634
Exp_C2_94_DC    -0.991110
Exp_C2_99_DC    -0.990646
Exp_C2_84_DC    -0.987958
Exp_C2_99_CC    -0.973320
Exp_C2_94_CC    -0.965537
Exp_C2_79_DC    -0.962099
Exp_C2_89_CC    -0.957199
Exp_C2_79_CC    -0.917389
Exp_C2_84_CC    -0.901935
Exp_B_79_DC     -0.181627
Exp_B_84_DC     -0.043203
Exp_B_79_CC     -0.028439
Exp_B_89_DC     -0.024218
Exp_B_94_DC     -0.019039
Exp_B_99_DC     -0.014335
Exp_B_84_CC     -0.008694
Exp_B_99_CC     -0.000094
Exp_B_89_CC      0.000522
Exp_B_94_CC      0.000525
Exp_C1_79_DC     0.973527
Exp_C1_79_CC     0.976088
Exp_C1_84_DC     0.985820
Exp_C1_84_CC     0.990230
Exp_C1_89_DC     0.990503
Exp_C1_94_CC     0.990927
Exp_C1_94_DC     0.991419
Exp_C1_89_CC     0.991977
Exp_C1_99_DC     0.992700
Exp_C1_99_CC     0.992983
Name: score, dtype: float32
```

```
[11]: import matplotlib.pyplot as plt

plt.figure(figsize=(8,4))
plt.hist(score, bins=50)
plt.axvline(0, color="red")
plt.title("Score distribution")
```

```
plt.show()
```



```
[12]: df_plot = df_test.copy()
df_plot["score"] = score
df_plot = df_plot.merge(df_exp[["ExperimentID", "Interval Time"]],
    ↪ on="ExperimentID")

df_plot.groupby("Interval Time")["score"].mean().sort_index()
```

```
[12]: Interval Time
2400.0    0.988441
3600.0    0.986794
4800.0   -0.006976
7200.0   -0.514966
10800.0  -0.984737
Name: score, dtype: float32
```

9 utilities

```
[13]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt

def _to_numpy(x):
    """Robust conversion: torch tensor / list / numpy / pandas -> numpy array.
    ↪ """
```

```

try:
    import torch
    if isinstance(x, torch.Tensor):
        return x.detach().cpu().numpy()
except Exception:
    pass
if isinstance(x, (pd.Series, pd.DataFrame)):
    return x.to_numpy()
return np.asarray(x)

def _ensure_1d_int(y):
    y = _to_numpy(y).reshape(-1)
    return y.astype(int)

def _ensure_2d_float(P):
    P = _to_numpy(P)
    if P.ndim == 1:
        P = P.reshape(-1, 1)
    return P.astype(float)

def predictive_entropy(P, eps=1e-12):
    """Row-wise entropy for probability matrix P (N x K)."""
    P = np.clip(P, eps, 1.0)
    return -np.sum(P * np.log(P), axis=1)

def one_hot(y, K):
    y = _ensure_1d_int(y)
    oh = np.zeros((y.size, K), dtype=float)
    oh[np.arange(y.size), y] = 1.0
    return oh

```

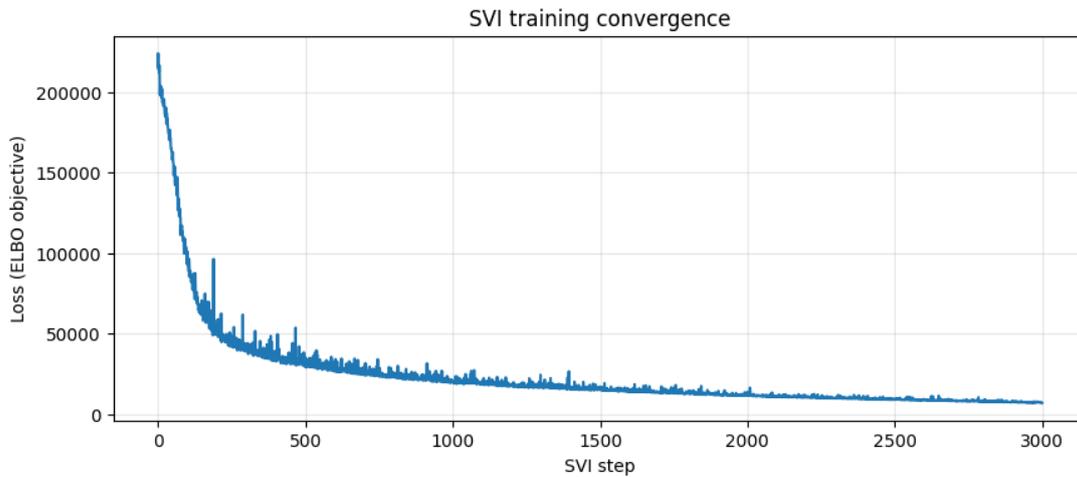
10 Training convergence

```

[14]: import matplotlib.pyplot as plt

fig, ax = plt.subplots(figsize=(10, 4))
ax.plot(loss_history)
ax.set_xlabel("SVI step")
ax.set_ylabel("Loss (ELBO objective)")
ax.set_title("SVI training convergence")
ax.grid(True, alpha=0.3)
plt.show()

```

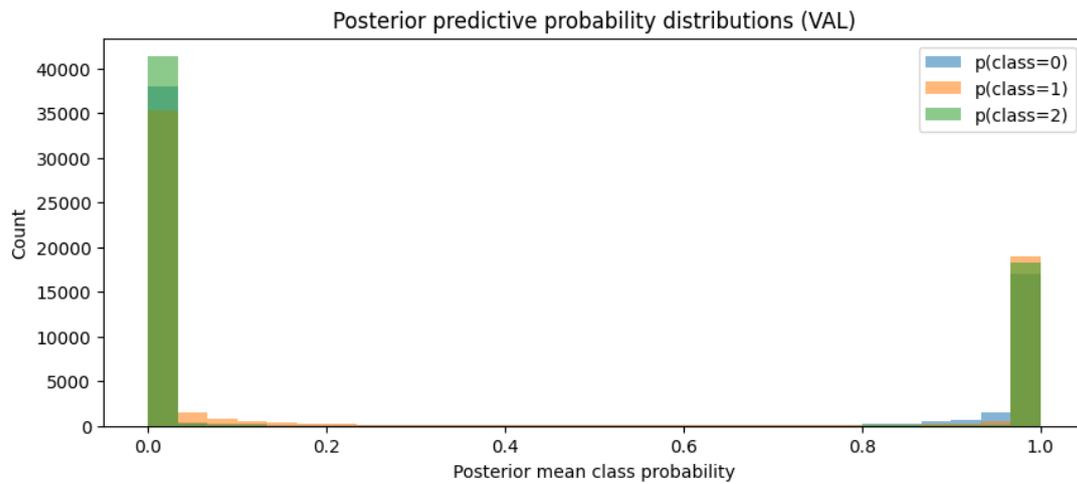


11 Posterior predictive probability distributions

```
[15]: # Choose split
P = globals().get("probs_val", None)
y = globals().get("y_val", None)

if P is None or y is None:
    print("Missing probs_val/y_val. Switch to probs_test/y_test or run_
↳ Predictive to create them.")
else:
    P = _ensure_2d_float(P)
    y = _ensure_1d_int(y)
    K = P.shape[1]

    fig, ax = plt.subplots(figsize=(10, 4))
    for k in range(K):
        ax.hist(P[:, k], bins=30, alpha=0.55, label=f"p(class={k})")
    ax.set_xlabel("Posterior mean class probability")
    ax.set_ylabel("Count")
    ax.set_title("Posterior predictive probability distributions (VAL)")
    ax.legend()
    plt.show()
```

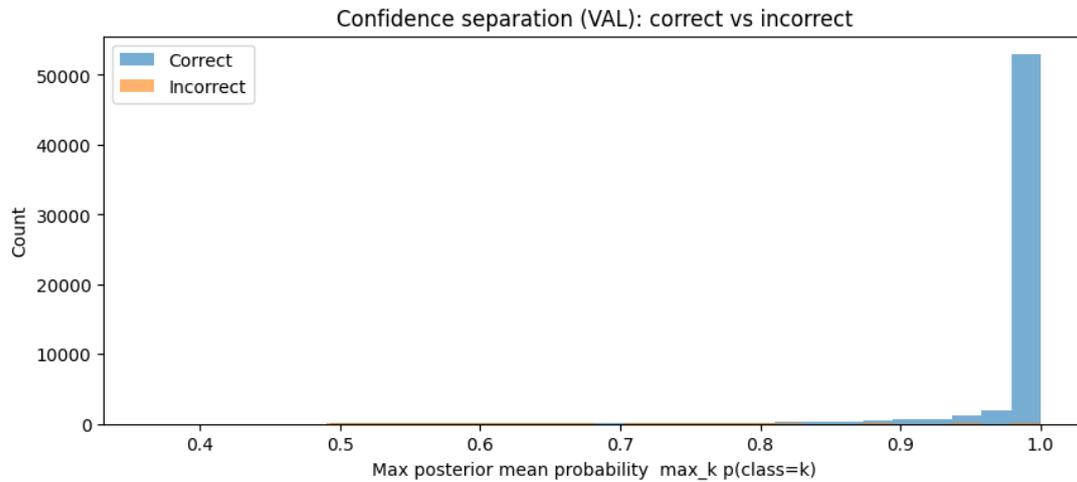


```
[16]: P = globals().get("probs_val", None)
y = globals().get("y_val", None)

if P is None or y is None:
    print("Missing probs_val/y_val.")
else:
    P = _ensure_2d_float(P)
    y = _ensure_1d_int(y)
    y_pred = np.argmax(P, axis=1)

    p_max = np.max(P, axis=1)
    correct = (y_pred == y)

    fig, ax = plt.subplots(figsize=(10, 4))
    ax.hist(p_max[correct], bins=30, alpha=0.6, label="Correct")
    ax.hist(p_max[~correct], bins=30, alpha=0.6, label="Incorrect")
    ax.set_xlabel("Max posterior mean probability max_k p(class=k)")
    ax.set_ylabel("Count")
    ax.set_title("Confidence separation (VAL): correct vs incorrect")
    ax.legend()
    plt.show()
```



12 Confusion matrix heatmaps

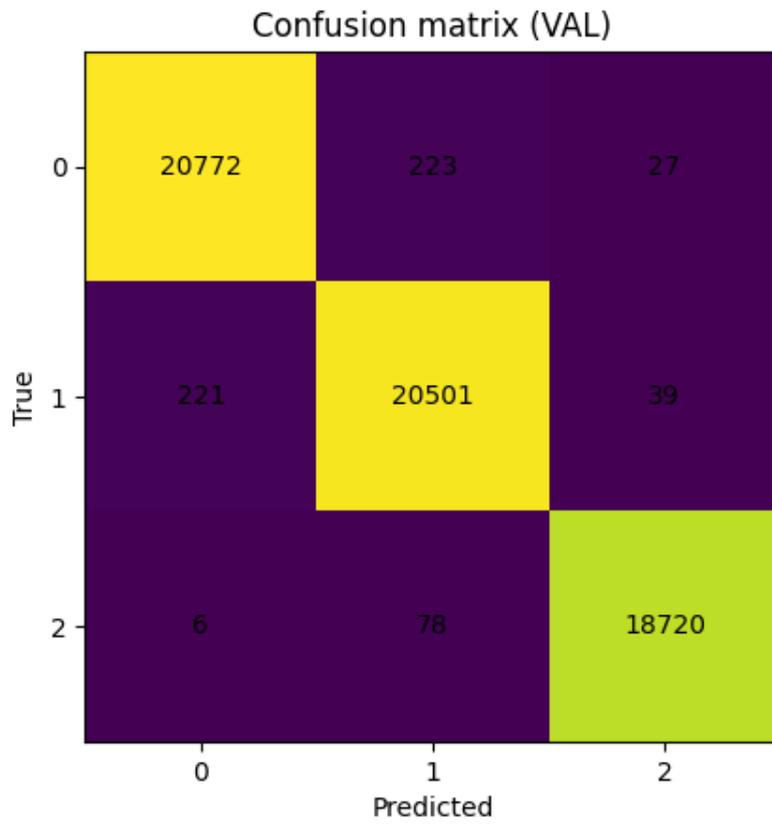
```
[17]: from sklearn.metrics import confusion_matrix

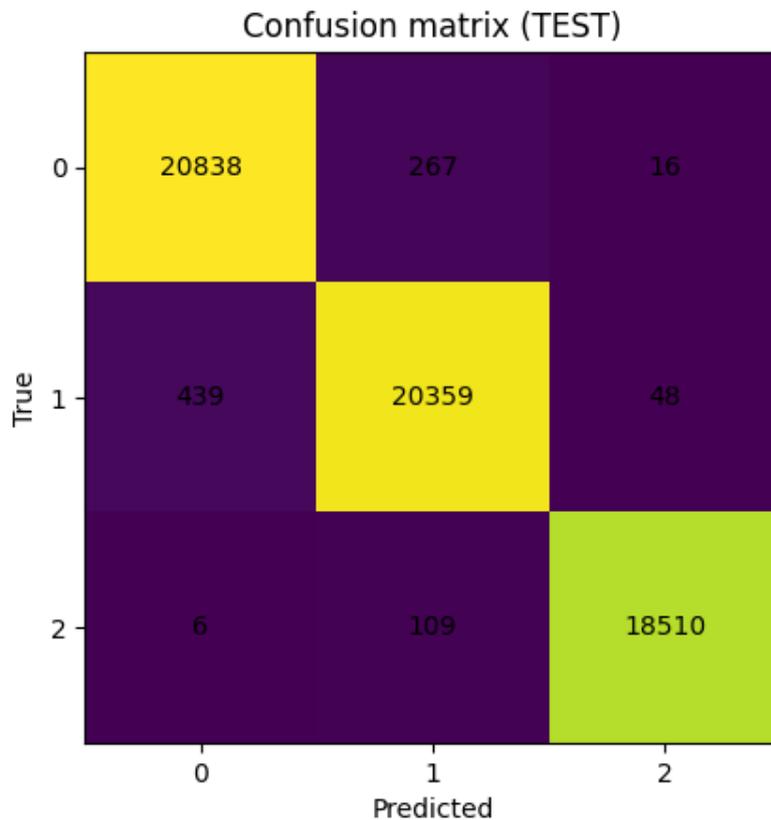
def plot_cm(y_true, y_pred, title):
    cm = confusion_matrix(y_true, y_pred)
    fig, ax = plt.subplots(figsize=(5.6, 4.8))
    im = ax.imshow(cm, interpolation="nearest")
    ax.set_title(title)
    ax.set_xlabel("Predicted")
    ax.set_ylabel("True")
    ax.set_xticks(range(cm.shape[1]))
    ax.set_yticks(range(cm.shape[0]))
    for i in range(cm.shape[0]):
        for j in range(cm.shape[1]):
            ax.text(j, i, str(cm[i, j]), ha="center", va="center")
    plt.show()
    return cm

# VAL
if "probs_val" in globals() and "y_val" in globals():
    P_val = _ensure_2d_float(probs_val)
    y_val_np = _ensure_1d_int(y_val)
    y_pred_val = np.argmax(P_val, axis=1)
    cm_val = plot_cm(y_val_np, y_pred_val, "Confusion matrix (VAL)")

# TEST
if "probs_test" in globals() and "y_test" in globals():
    P_test = _ensure_2d_float(probs_test)
```

```
y_test_np = _ensure_1d_int(y_test)
y_pred_test = np.argmax(P_test, axis=1)
cm_test = plot_cm(y_test_np, y_pred_test, "Confusion matrix (TEST)")
```





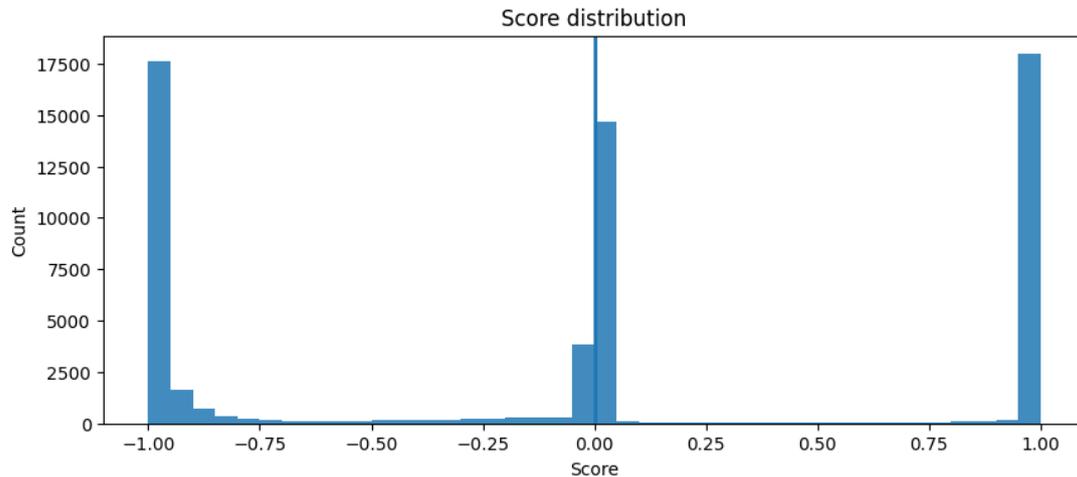
13 “Score distribution”

```
[18]: # IMPORTANT: define score exactly as in your notebook cell.
# Examples (do NOT use unless it matches your code):
# score = probs_test[:, 2] - probs_test[:, 0]
# score = np.log(probs_test[:, 2] + 1e-12) - np.log(probs_test[:, 0] + 1e-12)

# --- Replace this line with your notebook's definition ---
score = probs_test[:,2] - probs_test[:,0]
# -----

if score is None:
    print("Set `score = ...` exactly as in your HTML cell (copy the expression).
↵")
else:
    score = _to_numpy(score).reshape(-1)
    fig, ax = plt.subplots(figsize=(10, 4))
    ax.hist(score, bins=40, alpha=0.85)
    ax.axvline(0.0, linewidth=2) # matches your red vertical line concept
```

```
ax.set_xlabel("Score")
ax.set_ylabel("Count")
ax.set_title("Score distribution")
plt.show()
```



```
[19]: # --- Multiclass calibration (Policy-BNN): class-wise reliability diagrams ---
# Paste this AFTER you have `probs_test` (N x 3) and `y_test` (N,)
# Works also for probs_val / y_val.

import numpy as np
import matplotlib.pyplot as plt

def reliability_curve_binary(p, y, n_bins=10):
    """
    Compute reliability curve for binary event with predicted prob p and true
    labels y in {0,1}.
    Returns: bin_centers, conf, freq, bin_counts
    """
    p = np.asarray(p, dtype=float).reshape(-1)
    y = np.asarray(y, dtype=int).reshape(-1)
    assert p.shape[0] == y.shape[0], "p and y must have same length"

    # Bin edges (uniform in [0,1])
    edges = np.linspace(0.0, 1.0, n_bins + 1)
    bin_ids = np.digitize(p, edges, right=True) - 1
    bin_ids = np.clip(bin_ids, 0, n_bins - 1)

    conf = np.zeros(n_bins, dtype=float)
    freq = np.zeros(n_bins, dtype=float)
```

```

counts = np.zeros(n_bins, dtype=int)

for b in range(n_bins):
    mask = (bin_ids == b)
    counts[b] = int(mask.sum())
    if counts[b] > 0:
        conf[b] = float(p[mask].mean())
        freq[b] = float(y[mask].mean())
    else:
        conf[b] = np.nan
        freq[b] = np.nan

bin_centers = 0.5 * (edges[:-1] + edges[1:])
return bin_centers, conf, freq, counts

def ece_binary(p, y, n_bins=10):
    """
    Expected Calibration Error for binary probabilities.
    ECE = sum_k (|Bk|/n) * |freq(Bk) - conf(Bk)|
    """
    p = np.asarray(p, dtype=float).reshape(-1)
    y = np.asarray(y, dtype=int).reshape(-1)
    n = y.size

    edges = np.linspace(0.0, 1.0, n_bins + 1)
    bin_ids = np.digitize(p, edges, right=True) - 1
    bin_ids = np.clip(bin_ids, 0, n_bins - 1)

    ece = 0.0
    for b in range(n_bins):
        mask = (bin_ids == b)
        nb = int(mask.sum())
        if nb == 0:
            continue
        conf = float(p[mask].mean())
        freq = float(y[mask].mean())
        ece += (nb / n) * abs(freq - conf)
    return float(ece)

def plot_multiclass_reliability(P, y, class_names=None, n_bins=10,
    title="Policy-BNN calibration (class-wise)":
    """
    P: (N,K) posterior mean class probabilities
    y: (N,) true class labels in {0..K-1}
    """
    P = np.asarray(P, dtype=float)
    y = np.asarray(y, dtype=int).reshape(-1)

```

```

assert P.ndim == 2, "P must be (N,K)"
N, K = P.shape
assert y.size == N, "y must have length N"

if class_names is None:
    class_names = [f"class {k}" for k in range(K)]
assert len(class_names) == K

fig, ax = plt.subplots(figsize=(6.2, 6.2))
ax.plot([0, 1], [0, 1], linestyle="--", linewidth=2, label="Ideal")

eces = []
for k in range(K):
    p_k = P[:, k]
    y_k = (y == k).astype(int) # one-vs-rest labels
    centers, conf, freq, counts = reliability_curve_binary(p_k, y_k,
n_bins=n_bins)
    ece_k = ece_binary(p_k, y_k, n_bins=n_bins)
    eces.append(ece_k)

    # Only plot bins that have samples
    mask = ~np.isnan(conf) & ~np.isnan(freq)
    ax.plot(conf[mask], freq[mask], marker="o", linewidth=2,
            label=f"{class_names[k]} (ECE={ece_k:.3f})")

ax.set_xlabel("Mean predicted probability")
ax.set_ylabel("Observed frequency")
ax.set_title(title)
ax.set_xlim(0, 1)
ax.set_ylim(0, 1)
ax.grid(True, alpha=0.3)
ax.legend()
plt.show()

return eces

# ---- choose split here ----
P = probs_test # or probs_val
y = y_test # or y_val

class_names = ["C2 (under-maintained)", "B (balanced)", "C1 (over-maintained)"]

eces = plot_multiclass_reliability(
    P, y,
    class_names=class_names,
    n_bins=10,
    title="Policy-BNN calibration (test set): class-wise reliability diagrams"

```

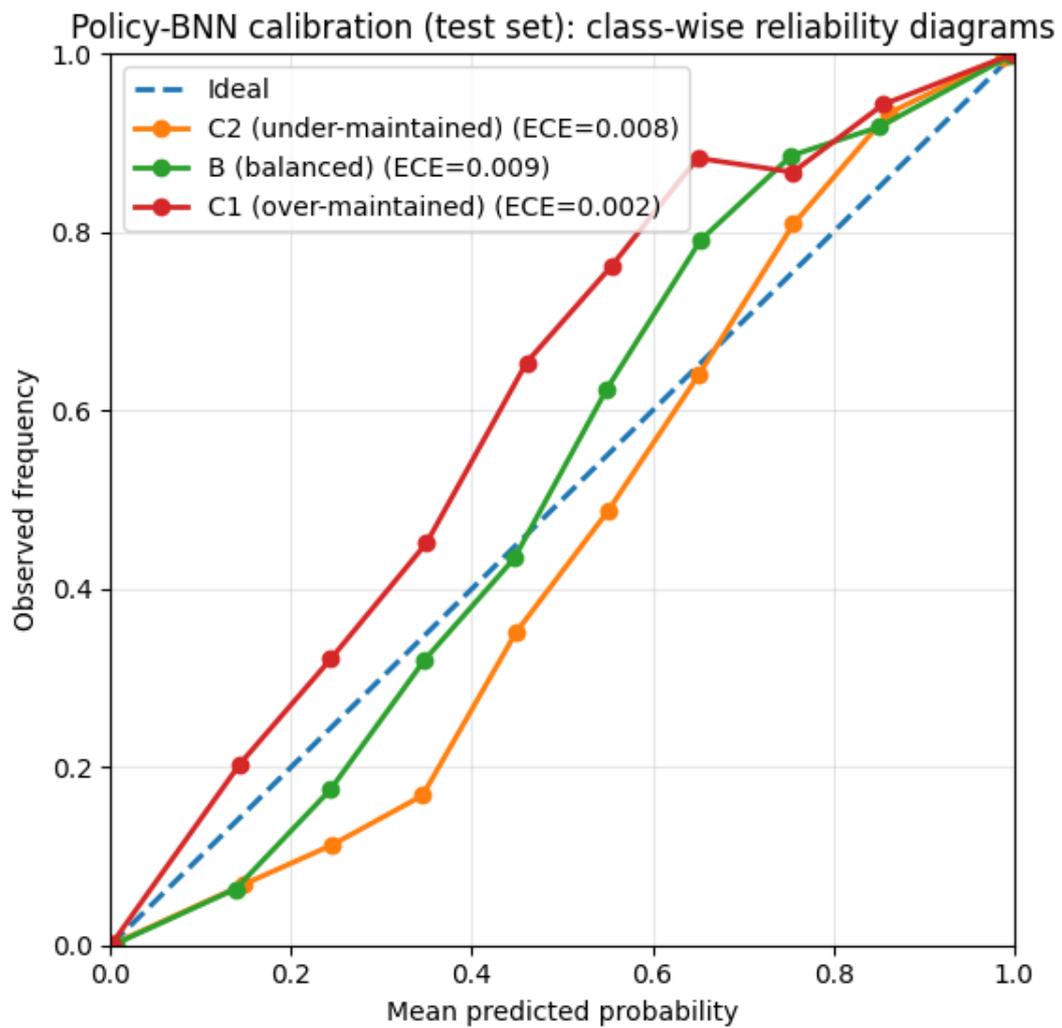
```

)

print("Class-wise ECE:", dict(zip(class_names, eces)))

# Optional: save for thesis inclusion
# plt.savefig("policy_bnn_calibration_test.pdf", bbox_inches="tight", dpi=300)

```



```

Class-wise ECE: {'C2 (under-maintained)': 0.00830621137557951, 'B (balanced)':
0.008838515015633657, 'C1 (over-maintained)': 0.0018096997318363258}

```

F Phase-BNN Notebook

Phase_BNN

February 27, 2026

1 Phase-BNN (MC Dropout) — Bayesian Phase Mapping

This notebook trains a **Phase-BNN** to classify the maintenance phase **B / C1 / C2** and then projects **D tokens** (xs, vs, s, m, vm, xm) into that phase space using **posterior predictive sampling** (MC Dropout).

Outputs produced: - Confusion matrix table (TEST) - KPI table (TEST) - Bayesian uncertainty summary (MI statistics) - D-token → phase mapping table (P(B), P(C1), P(C2), MI) - Plot: phase probabilities by token - Plot: epistemic uncertainty (MI) by token

```
[1]: # Cell 1: Configuration
from pathlib import Path

# --- Set your DB path here ---
DB_PATH = Path(r"normalized_Exp_DB_892.db")

# --- Training hyperparameters ---
RANDOM_SEED = 42
EPOCHS = 12
BATCH_SIZE = 512
LR = 1e-3
WEIGHT_DECAY = 1e-4
DROPOUT_P = 0.25
HIDDEN = 128

# --- Bayesian MC sampling ---
MC_SAMPLES = 80
```

```
[2]: # Cell 2: Load data from SQLite and join ExpNr
import sqlite3
import pandas as pd

assert DB_PATH.exists(), f"DB not found: {DB_PATH}"
con = sqlite3.connect(str(DB_PATH))

sql = (
    "SELECT bf.*, r.ExperimentID, e.ExpNr "
    "FROM BNN_Features bf "
```

```

"JOIN Run r ON r.RunID = bf.Run "
"JOIN Experiment e ON e.ExperimentID = r.ExperimentID"
)

df = pd.read_sql_query(sql, con)

print("Loaded rows/cols:", df.shape)
df[["Run", "ExperimentID", "ExpNr"]].head(10)

```

Loaded rows/cols: (530709, 20)

```

[2]:   Run  ExperimentID      ExpNr
0    1             1  Exp_A_79_DC
1    1             1  Exp_A_79_DC
2    1             1  Exp_A_79_DC
3    1             1  Exp_A_79_DC
4    1             1  Exp_A_79_DC
5    1             1  Exp_A_79_DC
6    1             1  Exp_A_79_DC
7    1             1  Exp_A_79_DC
8    1             1  Exp_A_79_DC
9    1             1  Exp_A_79_DC

```

```

[3]: # Cell 3: Parse ExpNr into family/level/policy/token
import re
import pandas as pd

def parse_exp(expnr: str) -> pd.Series:
    expnr = str(expnr)

    # Numeric-level experiments: Exp_A_79_DC, Exp_C1_84_CC, Exp_C2_99_DC, ...
    m_num = re.match(r"^Exp_([A-Z]\d?)(\d+)(CC|DC)$", expnr)
    if m_num:
        return pd.Series({
            "family": m_num.group(1),
            "level_num": int(m_num.group(2)),
            "level_tok": None,
            "policy": m_num.group(3),
        })

    # Token-level experiments (D): Exp_D_m_DC, Exp_D_xs_CC, ...
    m_tok = re.match(r"^Exp_(D)(xs|vs|s|m|vm|xm)(CC|DC)$", expnr)
    if m_tok:
        return pd.Series({
            "family": m_tok.group(1),
            "level_num": None,
            "level_tok": m_tok.group(2),
            "policy": m_tok.group(3),
        })

```

```

    })

    return pd.Series({"family": None, "level_num": None, "level_tok": None,
                    ↪ "policy": None})

parsed = df["ExpNr"].apply(parse_exp)
df = pd.concat([df, parsed], axis=1)

unparsed = float(df["family"].isna().mean())
print("Unparsed share:", unparsed)
df["family"].value_counts(dropna=False)

```

Unparsed share: 0.0

```

[3]: family
D      125432
C2     105840
B      104200
A      101678
C1      93559
Name: count, dtype: int64

```

```

[4]: # Cell 4: Create phase label y_phase for B / C1 / C2 (D is excluded from
    ↪ training)
import numpy as np

phase_map = {"B": 0, "C1": 1, "C2": 2}
df["y_phase"] = df["family"].map(phase_map)

print("Phase label coverage (non-null share):", float(df["y_phase"].notna().
    ↪ mean()))
df[["ExpNr", "family", "level_num", "level_tok", "policy", "y_phase"]].head(10)

```

Phase label coverage (non-null share): 0.5720630326600831

```

[4]:      ExpNr family level_num level_tok policy y_phase
0  Exp_A_79_DC     A      79.0      NaN    DC     NaN
1  Exp_A_79_DC     A      79.0      NaN    DC     NaN
2  Exp_A_79_DC     A      79.0      NaN    DC     NaN
3  Exp_A_79_DC     A      79.0      NaN    DC     NaN
4  Exp_A_79_DC     A      79.0      NaN    DC     NaN
5  Exp_A_79_DC     A      79.0      NaN    DC     NaN
6  Exp_A_79_DC     A      79.0      NaN    DC     NaN
7  Exp_A_79_DC     A      79.0      NaN    DC     NaN
8  Exp_A_79_DC     A      79.0      NaN    DC     NaN
9  Exp_A_79_DC     A      79.0      NaN    DC     NaN

```

```
[5]: # Cell 5: Select feature columns (exclude leakage and identifiers)
import pandas as pd

LEAK = {"y", "Dt_ToNextMaint"} # likely targets / future-looking
EXCLUDE = {"Run", "ExperimentID", "ExpNr", "family", "level_num", "level_tok", "policy", "y_phase"} | LEAK

feature_cols = [c for c in df.columns if c not in EXCLUDE and pd.api.types.is_numeric_dtype(df[c])]

print("n_features:", len(feature_cols))
feature_cols
```

n_features: 15

```
[5]: ['In_EndTimeStamp',
      'DeltaT',
      'CT_Median_In',
      'CT_IQR_In',
      'CT_P95_In',
      'CT_Median_Out',
      'CT_IQR_Out',
      'CT_P95_Out',
      'DowntimeWin',
      'FailCountWin',
      'MTTRWin',
      'TimeSinceFailEnd',
      'HasFailureHistory',
      'TimeSinceMaintEnd',
      'BufferLevel']
```

```
[6]: # Cell: Clean non-finite rows BEFORE split
import numpy as np

df = df.copy()
df[feature_cols] = df[feature_cols].replace([np.inf, -np.inf], np.nan)

bad = df[feature_cols].isna().any(axis=1)
print("Rows with NaN in features:", int(bad.sum()), "out of", len(df))

df = df.loc[~bad].copy()
print("After cleaning:", df.shape)
```

Rows with NaN in features: 2078 out of 530709
 After cleaning: (528631, 25)

```
[7]: # Cell: Clean D rows (non-finite features)
import numpy as np
```

```

# Work on the already cleaned df (after global cleaning)
D = df[df["family"] == "D"].copy()

mask_D = np.isfinite(D[feature_cols].values).all(axis=1)
print("Dropping D rows:", int((-mask_D).sum()), "out of", len(D))

D = D.loc[mask_D].copy()

# rebuild X_D and tokens
X_D = D[feature_cols].astype(float).values
tok_D = D["level_tok"].astype(str).values

print("Remaining D rows:", len(D))

```

Dropping D rows: 0 out of 125006
Remaining D rows: 125006

```

[8]: # Cell 6: Build Train/Val/Test split by Run (prevents window leakage across_
      ↪ splits)
import numpy as np
from sklearn.model_selection import train_test_split

phase_df = df[df["y_phase"].notna()].copy()

runs = phase_df["Run"].unique()
r_tr, r_tmp = train_test_split(runs, test_size=0.30, random_state=RANDOM_SEED)
r_va, r_te = train_test_split(r_tmp, test_size=0.50, random_state=RANDOM_SEED)

train = phase_df[phase_df["Run"].isin(r_tr)].copy()
val = phase_df[phase_df["Run"].isin(r_va)].copy()
test = phase_df[phase_df["Run"].isin(r_te)].copy()

print("rows Train/Val/Test:", train.shape, val.shape, test.shape)
print("Train class counts:", train["family"].value_counts().to_dict())

```

rows Train/Val/Test: (211540, 25) (44797, 25) (45984, 25)
Train class counts: {'C2': 77582, 'C1': 69366, 'B': 64592}

```

[9]: # Cell 7: Standardize features using Train only
from sklearn.preprocessing import StandardScaler
import numpy as np

X_tr = train[feature_cols].astype(float).values
y_tr = train["y_phase"].astype(int).values

X_va = val[feature_cols].astype(float).values
y_va = val["y_phase"].astype(int).values

```

```

X_te = test[feature_cols].astype(float).values
y_te = test["y_phase"].astype(int).values

scaler = StandardScaler()
X_tr_s = scaler.fit_transform(X_tr)
X_va_s = scaler.transform(X_va)
X_te_s = scaler.transform(X_te)

print("Shapes:", X_tr_s.shape, X_va_s.shape, X_te_s.shape)

```

Shapes: (211540, 15) (44797, 15) (45984, 15)

```

[10]: # Cell 8: Define MC Dropout Phase-BNN (PyTorch)
import torch
import torch.nn as nn
import torch.nn.functional as F

device = "cuda" if torch.cuda.is_available() else "cpu"
torch.manual_seed(RANDOM_SEED)

class MCDropoutMLP(nn.Module):
    def __init__(self, d_in, d_out=3, p_drop=0.25, h=128):
        super().__init__()
        self.fc1 = nn.Linear(d_in, h)
        self.fc2 = nn.Linear(h, h)
        self.out = nn.Linear(h, d_out)
        self.drop = nn.Dropout(p_drop)

    def forward(self, x):
        x = F.relu(self.fc1(x)); x = self.drop(x)
        x = F.relu(self.fc2(x)); x = self.drop(x)
        return self.out(x)

model = MCDropoutMLP(d_in=X_tr_s.shape[1], d_out=3, p_drop=DROPOUT_P, h=HIDDEN).
    ↪to(device)
model

```

```

[10]: MCDropoutMLP(
  (fc1): Linear(in_features=15, out_features=128, bias=True)
  (fc2): Linear(in_features=128, out_features=128, bias=True)
  (out): Linear(in_features=128, out_features=3, bias=True)
  (drop): Dropout(p=0.25, inplace=False)
)

```

```

[11]: # Cell: Guard - ensure no NaN/inf in matrices
import numpy as np

```

```

def assert_finite(X, name):
    X = np.asarray(X)
    n_bad = int((~np.isfinite(X)).sum())
    assert n_bad == 0, f"{name} contains {n_bad} non-finite values."

assert_finite(X_tr, "X_tr")
assert_finite(X_va, "X_va")
assert_finite(X_te, "X_te")
if "X_D" in globals():
    assert_finite(X_D, "X_D")

print("All matrices are finite.")

```

All matrices are finite.

```

[12]: # Cell 9: Train Phase-BNN with validation accuracy each epoch
from torch.utils.data import TensorDataset, DataLoader
from sklearn.metrics import accuracy_score

Xtr_t = torch.tensor(X_tr_s, dtype=torch.float32)
ytr_t = torch.tensor(y_tr, dtype=torch.long)

dl = DataLoader(TensorDataset(Xtr_t, ytr_t), batch_size=BATCH_SIZE,
               ↪shuffle=True)

opt = torch.optim.Adam(model.parameters(), lr=LR, weight_decay=WEIGHT_DECAY)
loss_fn = nn.CrossEntropyLoss()

Xva_t = torch.tensor(X_va_s, dtype=torch.float32).to(device)

for epoch in range(EPOCHS):
    model.train()
    total_loss = 0.0
    for xb, yb in dl:
        xb, yb = xb.to(device), yb.to(device)
        opt.zero_grad()
        loss = loss_fn(model(xb), yb)
        loss.backward()
        opt.step()
        total_loss += float(loss) * len(xb)

    model.eval()
    with torch.no_grad():
        pva = torch.softmax(model(Xva_t), dim=1).cpu().numpy()
        acc_va = accuracy_score(y_va, pva.argmax(axis=1))
        print(f"epoch {epoch+1:02d} loss={total_loss/len(Xtr_t):.4f} ↪
        ↪val_acc={acc_va:.4f}")

```

C:\Users\marcp\AppData\Local\Temp\ipykernel_4220\795478443.py:24: UserWarning: Converting a tensor with requires_grad=True to a scalar may lead to unexpected behavior.

Consider using `tensor.detach()` first. (Triggered internally at C:\actions-runner_work\pytorch\pytorch\pytorch\torch\csrc\autograd\generated\python_variable_methods.cpp:837.)

```
total_loss += float(loss) * len(xb)

epoch 01 loss=0.6473 val_acc=0.5528
epoch 02 loss=0.5662 val_acc=0.5387
epoch 03 loss=0.5480 val_acc=0.5769
epoch 04 loss=0.5381 val_acc=0.5514
epoch 05 loss=0.5306 val_acc=0.5601
epoch 06 loss=0.5254 val_acc=0.5862
epoch 07 loss=0.5202 val_acc=0.6619
epoch 08 loss=0.5162 val_acc=0.6056
epoch 09 loss=0.5132 val_acc=0.6087
epoch 10 loss=0.5101 val_acc=0.5955
epoch 11 loss=0.5086 val_acc=0.6178
epoch 12 loss=0.5060 val_acc=0.5973
```

```
[13]: # Cell 10: TEST evaluation - Confusion matrix table
import numpy as np
import pandas as pd
from sklearn.metrics import confusion_matrix

model.eval()
Xte_t = torch.tensor(X_te_s, dtype=torch.float32).to(device)

with torch.no_grad():
    pte = torch.softmax(model(Xte_t), dim=1).cpu().numpy()

yhat = pte.argmax(axis=1)
cm = confusion_matrix(y_te, yhat)

cm_df = pd.DataFrame(cm, index=["true_B", "true_C1", "true_C2"],
    ↪ columns=["pred_B", "pred_C1", "pred_C2"])
cm_df
```

```
[13]:
```

	pred_B	pred_C1	pred_C2
true_B	6474	1258	4660
true_C1	479	17782	432
true_C2	5190	696	9013

```
[14]: # Cell 11: TEST KPI table (accuracy, balanced accuracy, macro F1)
import pandas as pd
from sklearn.metrics import accuracy_score, balanced_accuracy_score, f1_score
```

```

acc = accuracy_score(y_te, yhat)
bacc = balanced_accuracy_score(y_te, yhat)
f1m = f1_score(y_te, yhat, average="macro")

kpi = pd.DataFrame([
    "n_test": int(len(y_te)),
    "accuracy": float(acc),
    "balanced_accuracy": float(bacc),
    "macro_f1": float(f1m),
])

kpi

```

```

[14]:      n_test  accuracy  balanced_accuracy  macro_f1
0     45984  0.723491          0.69288  0.691561

```

```

[15]: # Cell 12: Bayesian posterior predictive sampling utilities (MC Dropout)
import numpy as np
import torch

@torch.no_grad()
def mc_predict_proba(model, X_tensor, T=80):
    # Keep dropout ON
    model.train()
    probs = []
    for _ in range(T):
        logits = model(X_tensor)
        probs.append(torch.softmax(logits, dim=1).cpu().numpy())
    return np.stack(probs, axis=0) # (T,N,K)

def predictive_uncertainty(probs_T):
    eps = 1e-12
    p_mean = probs_T.mean(axis=0) # (N,K)
    H_pred = -np.sum(p_mean * np.log(p_mean + eps), axis=1)
    ↪ # total
    H_exp = (-np.sum(probs_T * np.log(probs_T + eps), axis=2)).mean(axis=0)
    ↪ # expected
    MI = H_pred - H_exp
    ↪ # epistemic
    return p_mean, H_pred, MI

```

```

[16]: # Cell 13: Bayesian uncertainty summary on TEST (MI)
import pandas as pd
import numpy as np

probs_T_te = mc_predict_proba(model, Xte_t, T=MC_SAMPLES)
p_mean_te, H_pred_te, MI_te = predictive_uncertainty(probs_T_te)

```

```
summary = pd.DataFrame([
    "MI_mean": float(MI_te.mean()),
    "MI_p50": float(np.quantile(MI_te, 0.50)),
    "MI_p90": float(np.quantile(MI_te, 0.90)),
    "MI_p99": float(np.quantile(MI_te, 0.99)),
    "H_pred_mean": float(H_pred_te.mean())
])

summary
```

```
[16]:      MI_mean    MI_p50    MI_p90    MI_p99    H_pred_mean
0  0.013361  0.007194  0.033837  0.073906    0.516252
```

```
[17]: # Cell 14: Project D samples into phase space (posterior predictive + MI)
import pandas as pd
import numpy as np
import torch

D = df[df["family"] == "D"].copy()
assert len(D) > 0, "No family D rows found. Check parsing or DB content."

X_D = scaler.transform(D[feature_cols].astype(float).values)
tok_D = D["level_tok"].astype(str).values

XD_t = torch.tensor(X_D, dtype=torch.float32).to(device)

probs_T_D = mc_predict_proba(model, XD_t, T=MC_SAMPLES)
p_mean_D, H_pred_D, MI_D = predictive_uncertainty(probs_T_D)

print("D rows:", len(D), "tokens:", sorted(pd.unique(tok_D)))
```

```
D rows: 125006 tokens: ['m', 's', 'vm', 'vs', 'xm', 'xs']
```

```
[18]: # Cell 15: D-token → phase mapping table
import pandas as pd
import numpy as np

id_to_phase = {0:"B", 1:"C1", 2:"C2"}

rows = []
for tok in sorted(pd.unique(tok_D)):
    idx = np.where(tok_D == tok)[0]
    p_tok = p_mean_D[idx].mean(axis=0)
    mi_tok = MI_D[idx].mean()
    ent_tok = float(-np.sum(p_tok * np.log(p_tok + 1e-12)))
    top = int(np.argmax(p_tok))
    rows.append({
```

```

    "D_token": tok,
    "n": int(len(idx)),
    "P(B)": float(p_tok[0]),
    "P(C1)": float(p_tok[1]),
    "P(C2)": float(p_tok[2]),
    "mapped_phase": id_to_phase[top],
    "entropy_total": ent_tok,
    "epistemic_MI": float(mi_tok),
})

```

```

map_table = pd.DataFrame(rows).sort_values("D_token")
map_table

```

```

[18]:  D_token      n      P(B)      P(C1)      P(C2) mapped_phase  entropy_total \
0      m  20979  0.487866  0.076390  0.435743          B      0.908589
1      s  20742  0.484613  0.073185  0.442200          B      0.903249
2     vm  21013  0.496535  0.077828  0.425636          B      0.909905
3     vs  20671  0.486706  0.076811  0.436480          B      0.909451
4     xm  21115  0.494236  0.078565  0.427199          B      0.911500
5     xs  20486  0.488964  0.082567  0.428465          B      0.918916

    epistemic_MI
0      0.016264
1      0.012588
2      0.016850
3      0.012449
4      0.017676
5      0.011778

```

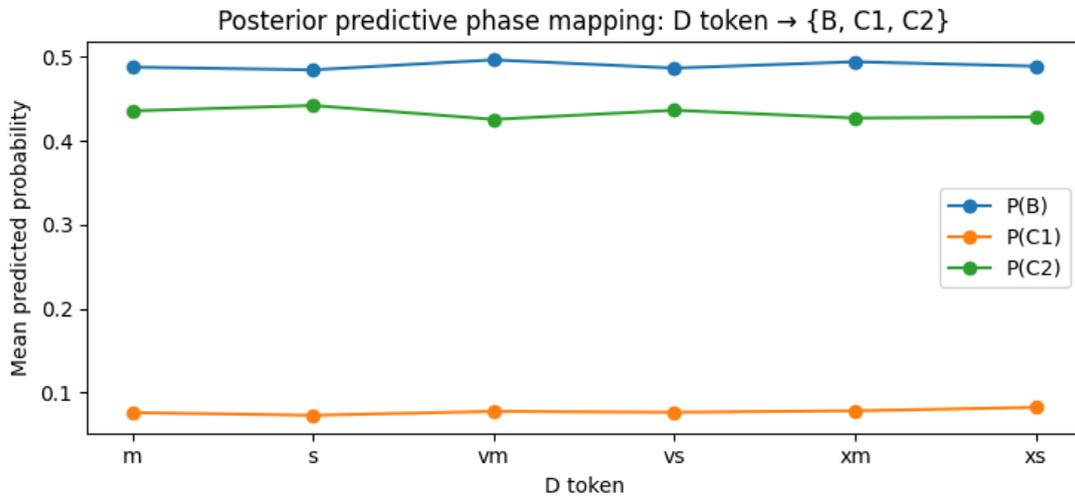
```

[19]: # Cell 16: Plot - phase probabilities per D token
import matplotlib.pyplot as plt

toks = map_table["D_token"].tolist()

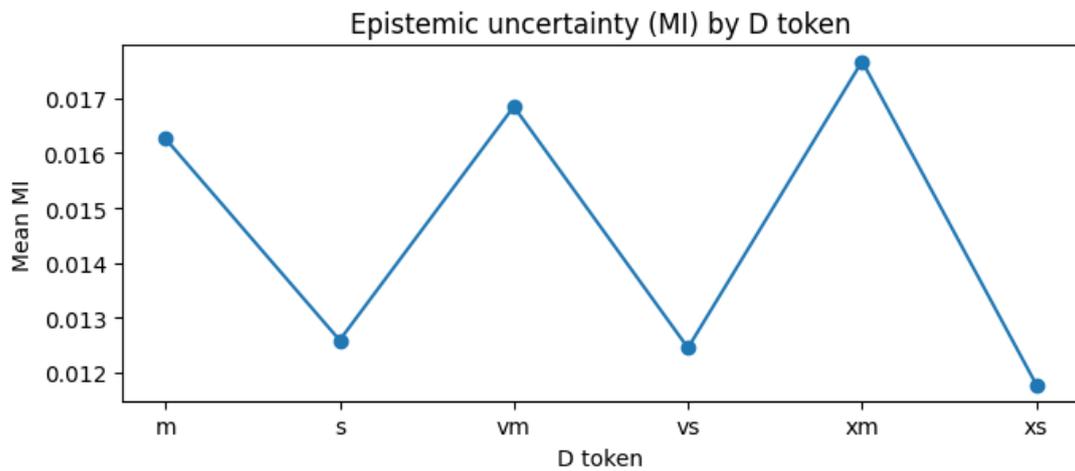
plt.figure(figsize=(7.5, 3.6))
plt.plot(toks, map_table["P(B)"].values, marker="o", label="P(B)")
plt.plot(toks, map_table["P(C1)"].values, marker="o", label="P(C1)")
plt.plot(toks, map_table["P(C2)"].values, marker="o", label="P(C2)")
plt.title("Posterior predictive phase mapping: D token → {B, C1, C2}")
plt.xlabel("D token")
plt.ylabel("Mean predicted probability")
plt.legend()
plt.tight_layout()
plt.show()

```



```
[20]: # Cell 17: Plot - epistemic uncertainty (MI) per D token
import matplotlib.pyplot as plt

plt.figure(figsize=(7.0, 3.2))
plt.plot(map_table["D_token"], map_table["epistemic_MI"], marker="o")
plt.title("Epistemic uncertainty (MI) by D token")
plt.xlabel("D token")
plt.ylabel("Mean MI")
plt.tight_layout()
plt.show()
```



```
[21]: # Cell 18: Save outputs (optional)
from pathlib import Path

out_dir = Path(".")
map_table.to_csv(out_dir / "PhaseBNN_D_token_mapping.csv", index=False)
kpi.to_csv(out_dir / "PhaseBNN_test_kpi.csv", index=False)
cm_df.to_csv(out_dir / "PhaseBNN_test_confusion_matrix.csv")
summary.to_csv(out_dir / "PhaseBNN_test_uncertainty_summary.csv", index=False)

print("Saved CSVs to:", out_dir.resolve())
```

Saved CSVs to: C:\Learning\University\Thesis\BNN\Project

```
[22]: map_table["B_minus_C2"] = map_table["P(B)"] - map_table["P(C2)"]
map_table[["D_token", "B_minus_C2"]]
```

```
[22]:  D_token  B_minus_C2
0      m      0.052123
1      s      0.042413
2     vm      0.070900
3     vs      0.050226
4     xm      0.067036
5     xs      0.060499
```

```
[23]: # --- Phase-BNN calibration (multiclass): class-wise reliability diagrams +
      ↪ class-wise ECE ---
# Requires:
#   p_mean_te : (N,3) posterior mean probabilities on TEST (from MC Dropout)
#   y_te      : (N,) true labels in {0,1,2}

import numpy as np
import matplotlib.pyplot as plt

def reliability_curve_binary(p, y, n_bins=10):
    """
    Reliability curve for a binary event:
    p: predicted prob in [0,1]
    y: true labels in {0,1}
    Returns: conf, freq, counts (each length n_bins) + bin_centers
    """
    p = np.asarray(p, dtype=float).reshape(-1)
    y = np.asarray(y, dtype=int).reshape(-1)
    assert p.shape[0] == y.shape[0], "p and y must have same length"

    edges = np.linspace(0.0, 1.0, n_bins + 1)
    bin_ids = np.digitize(p, edges, right=True) - 1
    bin_ids = np.clip(bin_ids, 0, n_bins - 1)
```

```

conf = np.full(n_bins, np.nan, dtype=float)
freq = np.full(n_bins, np.nan, dtype=float)
counts = np.zeros(n_bins, dtype=int)

for b in range(n_bins):
    mask = (bin_ids == b)
    counts[b] = int(mask.sum())
    if counts[b] > 0:
        conf[b] = float(p[mask].mean())
        freq[b] = float(y[mask].mean())

bin_centers = 0.5 * (edges[:-1] + edges[1:])
return bin_centers, conf, freq, counts

def ece_binary(p, y, n_bins=10):
    """
    Expected Calibration Error for binary event:
    ECE = sum_k (|Bk|/n) * |freq(Bk) - conf(Bk)|
    """
    p = np.asarray(p, dtype=float).reshape(-1)
    y = np.asarray(y, dtype=int).reshape(-1)
    n = y.size

    edges = np.linspace(0.0, 1.0, n_bins + 1)
    bin_ids = np.digitize(p, edges, right=True) - 1
    bin_ids = np.clip(bin_ids, 0, n_bins - 1)

    ece = 0.0
    for b in range(n_bins):
        mask = (bin_ids == b)
        nb = int(mask.sum())
        if nb == 0:
            continue
        conf = float(p[mask].mean())
        freq = float(y[mask].mean())
        ece += (nb / n) * abs(freq - conf)
    return float(ece)

def plot_multiclass_calibration(P, y, class_names=None, n_bins=10,
                               title="Phase-BNN calibration (test set)":
    """
    Multiclass calibration via one-vs-rest reliability diagrams.
    P: (N,K) predicted class probabilities
    y: (N,) true class labels in {0..K-1}
    """
    P = np.asarray(P, dtype=float)
    y = np.asarray(y, dtype=int).reshape(-1)

```

```

assert P.ndim == 2, "P must be (N,K)"
N, K = P.shape
assert y.size == N, "y must have length N"

if class_names is None:
    class_names = [f"class {k}" for k in range(K)]
assert len(class_names) == K

fig, ax = plt.subplots(figsize=(6.2, 6.2))
ax.plot([0, 1], [0, 1], linestyle="--", linewidth=2, label="Ideal (y=x)")

eces = {}
for k in range(K):
    p_k = P[:, k]
    y_k = (y == k).astype(int)

    _, conf, freq, counts = reliability_curve_binary(p_k, y_k,
n_bins=n_bins)
    ece_k = ece_binary(p_k, y_k, n_bins=n_bins)
    eces[class_names[k]] = ece_k

    mask = np.isfinite(conf) & np.isfinite(freq)
    ax.plot(conf[mask], freq[mask], marker="o", linewidth=2,
            label=f"{class_names[k]} (ECE={ece_k:.3f})")

ax.set_xlabel("Mean predicted probability")
ax.set_ylabel("Observed frequency")
ax.set_title(title)
ax.set_xlim(0, 1)
ax.set_ylim(0, 1)
ax.grid(True, alpha=0.3)
ax.legend()
plt.tight_layout()
plt.show()

return eces

# ---- Use TEST split ----
P = p_mean_te # (N,3) from your MC dropout posterior mean
y = y_te # (N,) true labels

class_names = ["B (balanced)", "C1 (over-maintained)", "C2 (under-maintained)"]

eces = plot_multiclass_calibration(
    P, y,
    class_names=class_names,
    n_bins=10,

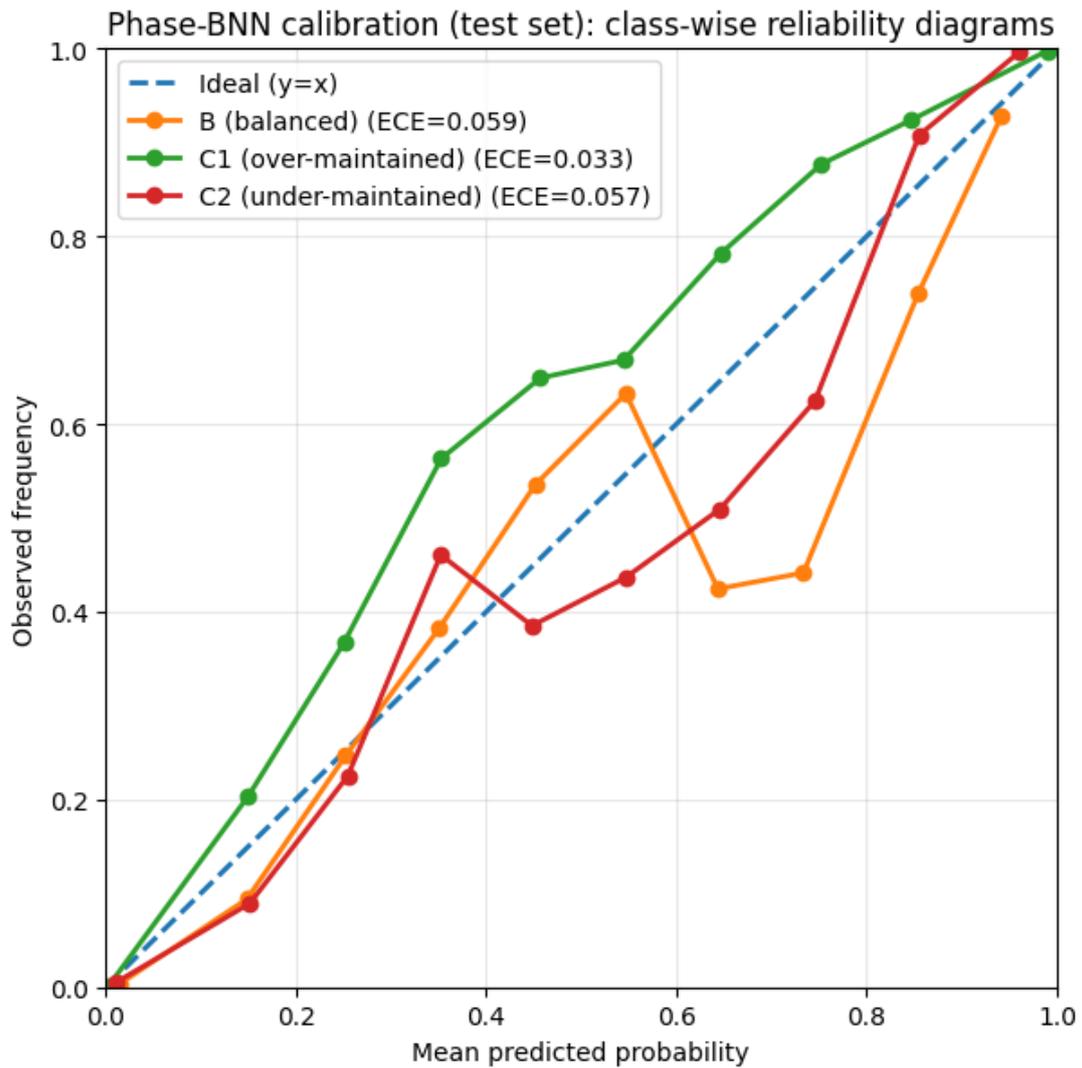
```

```

title="Phase-BNN calibration (test set): class-wise reliability diagrams"
)
print("Class-wise ECE:", eces)

# Optional: save as publication/thesis figure
# plt.savefig("phase_bnn_calibration_test.pdf", bbox_inches="tight", dpi=300)

```



Class-wise ECE: {'B (balanced)': 0.0594821017684261, 'C1 (over-maintained)': 0.032655757347060124, 'C2 (under-maintained)': 0.05667526554276621}

Bibliography

- [1] V. Molnár, G. Szabó, and J. Kundrák. Waste reduction possibilities in a manufacturing process. *Rezanie i Instrumenty v Tekhnologicheskikh Sistemah*, 89:109–116, 2018.
- [2] Chiara Franciosi, Benoit Iung, Salvatore Miranda, and Stefano Riemma. Maintenance for sustainability in the Industry 4.0 context: A scoping literature review. *IFAC-PapersOnLine*, 51(11):903–908, 2018.
- [3] A. Koch. *OEE für das Produktionsteam: Das vollständige OEE-Benutzerhandbuch oder wie Sie die verborgene Maschine entdecken*. CETPM Publishing, 2008.
- [4] G. Budai-Balke, R. Dekker, and R. P. Nicolai. A review of planning models for maintenance and production. Technical Report EI 2006-44, Econometric Institute, Erasmus University Rotterdam, 2006.
- [5] K. A. Kobbacy, D. P. Murthy, G. Budai, R. Dekker, and R. P. Nicolai. Maintenance and production: A review of planning models. In *Complex System Maintenance Handbook*, pages 321–344. Springer, 2008.
- [6] El Houssaine Aghezzaf, Mohamed A. Jamali, and Daoud Ait-Kadi. An integrated production and preventive maintenance planning model. *European Journal of Operational Research*, 181(2):679–685, 2007.
- [7] Dirk Hartmann and Herman Van der Auweraar. The executable Digital Twin: Merging the digital and the physics worlds, 2022.
- [8] N. Eleftheroglou, G. Galanopoulos, and T. Loutas. Similarity learning hidden semi-markov model for adaptive prognostics of composite structures. *Reliability Engineering & System Safety*, 243:109808, 2024.
- [9] M. Liu, J. Qin, D.-G. Lu, W.-H. Zhang, J.-S. Zhu, and M. H. Faber. Towards resilience of offshore wind farms: A framework and application to asset integrity management. *Applied Energy*, 322:119429, 2022.

- [10] C. Tsoumpris and G. Theotokatos. A decision-making approach for the health-aware energy management of ship hybrid power plants. *Reliability Engineering & System Safety*, 235:109263, 2023.
- [11] Seiichi Nakajima. *Introduction to TPM: Total Productive Maintenance*. Productivity Press, 1988.
- [12] J. Pereira, F. J. G. Silva, J. A. Bastos, L. P. Ferreira, and J. C. O. Matias. Application of the A3 methodology for the improvement of an assembly line. *Procedia Manufacturing*, 38, 2019.
- [13] S. P. Pires, O. Sénéchal, E. F. R. Loures, and J. F. Jimenez. An approach to the prioritization of sustainable maintenance drivers in the TBL framework. *IFAC-PapersOnLine*, 49, 2016.
- [14] Borut Buchmeister, Darko Friscic, and Iztok Palcic. Bullwhip effect study in a constrained supply chain. *Procedia Engineering*, 69, 2014.
- [15] A. P. Kuznetsov, H.-J. Koriath, A. V. Kalyashina, and T. Langer. Equivalence assessment method for the resource efficiency of equipment, technologies and production systems. *Procedia Manufacturing*, 21, 2018.
- [16] Itxaro Errandonea, Sergio Beltrán, and Saioa Arrizabalaga. Digital Twin for maintenance: A literature review. *Computers in Industry*, 123:103316, 2020.
- [17] Erwin Rauch, Patrick Dallasega, and Dominik T. Matt. Maintenance transformation through Industry 4.0 technologies: A literature review and future research directions. *Computers in Industry*, 120:103251, 2020.
- [18] I. T. Christou, N. Kefalakis, A. Zalonis, J. Soldatos, and R. Bröchler. End-to-end industrial IoT platform for actionable predictive maintenance. *IFAC-PapersOnLine*, 53:173–178, 2020.
- [19] B. K. Choi and D. Kang. *Modeling and Simulation of Discrete Event Systems*. John Wiley & Sons, Nashville, TN, 2013.
- [20] Siemens. Plant simulation help file, 2024.
- [21] M. Frantzen, S. Bandaru, and A. H. C. Ng. Digital Twin-based decision support of dynamic maintenance task prioritization using simulation-based optimization and genetic programming. *Decision Analytics Journal*, 3:100039, 2022.

- [22] Murray R. Spiegel. *Calculus of Finite Differences and Difference Equations*. McGraw-Hill, New York, 1994.
- [23] Saber N. Elaydi. *An Introduction to Difference Equations*. Springer-Verlag, New York, 1996.
- [24] Seymour Lipschutz and Marc Lars Lipson. *Discrete Mathematics*. McGraw-Hill, New York, 3 edition, 2007.
- [25] Aleksandr Y. Khinchin. *Mathematical Methods in the Theory of Queuing*. Dover Publications, New York, 2013.
- [26] John F. Shortle, James M. Thompson, Donald Gross, and Carl M. Harris. *Fundamentals of Queueing Theory*. Wiley, Hoboken, 2018.
- [27] H. Zupan and N. Herakovic. Production line balancing with discrete event simulation: A case study. *IFAC-PapersOnLine*, 48:2305–2311, 2015.
- [28] P. Ruane, P. Walsh, and J. Cosgrove. Development of a digital model and meta-model to improve the performance of an automated manufacturing line. *Journal of Manufacturing Systems*, 65:538–549, 2022.
- [29] L. M. Tumbajoy, M. Muñoz-Añasco, and S. Thiede. Enabling Industry 4.0 impact assessment with manufacturing system simulation: An OEE-based methodology. *Procedia CIRP*, 107:681–686, 2022.
- [30] Rita Gamberini, Luca Galloni, Francesco Lolli, and Bianca Rimini. On the analysis of effectiveness in a manufacturing cell: A critical implementation of existing approaches. *Procedia Manufacturing*, 11, 2017.
- [31] Lucia Pascale, Marin Mainea, Paul Ciprian Patric, and Luminita Duta. Mathematical decision model to improve TPM indicators. *IFAC Proceedings Volumes*, 45, 2012.
- [32] Erwin Kreyszig. *Advanced Engineering Mathematics*. John Wiley & Sons, 9 edition, 2006.
- [33] Anand S. Relkar and K. N. Nandurkar. Optimizing and analysing overall equipment effectiveness (OEE) through design of experiments (DOE). *Procedia Engineering*, 38, 2012.
- [34] Murray R. Spiegel, John J. Schiller, and R. Alu Srinivasan. *Probability and Statistics*. McGraw-Hill, New York, 4 edition, 2013.

- [35] N. Bastos, E. R. Loures, E. A. P. Santos, and M. A. B. de Paula. Production process efficiency analysis: An approach based on colored Petri Nets. *IFAC Proceedings Volumes*, 41(2):1863–1868, 2008.
- [36] A. Tayal, N. S. Kalsi, M. K. Gupta, D. Y. Pimenov, M. Sarikaya, and C. I. Pruncu. Effectiveness improvement in manufacturing industry: Trilogy study and open innovation dynamics. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1):7, 2021.
- [37] Taufik Djatna and Imam Muharram Alitu. An application of association rule mining in Total Productive Maintenance strategy: An analysis and modelling in wooden door manufacturing industry. *Procedia Manufacturing*, 4, 2015.
- [38] Siri Adolph, Patrick Kübler, Joachim Metternich, and Eberhard Abele. Overall commissioning effectiveness: Systematic identification of value-added shares in material supply. *Procedia CIRP*, 41, 2016.
- [39] A. Abu-Samah, M. K. Shahzad, E. Zamai, and A. B. Said. Failure prediction methodology for improved proactive maintenance using Bayesian approach. *IFAC-PapersOnLine*, 48(3):844–851, 2015.
- [40] Richard Hedman, Mukund Subramaniyan, and Peter Almström. Analysis of critical factors for automatic measurement of OEE. *Procedia CIRP*, 57, 2016.
- [41] M. Măinea, L. Dută, P. C. Patric, and I. Căciulă. A method to optimize the overall equipment effectiveness. *IFAC Proceedings Volumes*, 43:237–241, 2010.
- [42] X. Wang, K. S. Wang, and Y. Liu. Multivariate SPC methods for controlling manufacturing process parameters: A literature review and comparative study. *Computers in Industry*, 117:103212, 2020.
- [43] S. Arangio and F. Bontempi. Structural health monitoring of a cable-stayed bridge with bayesian neural networks. *Structure and Infrastructure Engineering*, 11(4):575–587, 2015.
- [44] D. J. C. MacKay. A practical bayesian framework for backpropagation networks. *Neural Computation*, 4(3):448–472, 1992.
- [45] X. Zhang and S. Mahadevan. Bayesian neural networks for flight trajectory prediction and safety assessment. *Decision Support Systems*, 131:113246, 2020.
- [46] A. G. Wilson and P. Izmailov. Bayesian deep learning and a probabilistic perspective of generalization. *CoRR*, 2020. abs/2002.08791.

- [47] N. G. Polson and V. Sokolov. Deep learning: a bayesian perspective. *Bayesian Analysis*, 12(4):1275–1304, 2017.
- [48] A. Der Kiureghian and O. Ditlevsen. Aleatory or epistemic? does it matter? *Structural Safety*, 31(2):105–112, 2009.
- [49] N. Öztürk and B. Ayvaz. A propagation breakdown management model for the industrial environment: Integration of maintenance and production. *Computers in Industry*, 121:103253, 2020.
- [50] D. Hendrycks and K. Gimpel. A baseline for detecting misclassified and out-of-distribution examples in neural networks. In *5th International Conference on Learning Representations (ICLR 2017), Conference Track Proceedings*, 2017.
- [51] C. Guo, G. Pleiss, Y. Sun, and K. Q. Weinberger. On calibration of modern neural network. In *Proceedings of the 34th International Conference on Machine Learning*, volume 70 of *ICML'17*, pages 1321–1330, 2017.
- [52] Y. Ovadia, E. Fertig, J. Ren, Z. Nado, D. Sculley, S. Nowozin, J. Dillon, B. Lakshminarayanan, and J. Snoek. Can you trust your model’s uncertainty? evaluating predictive uncertainty under dataset shift. In *Advances in Neural Information Processing Systems 32*, pages 13991–14002. Curran Associates, Inc., 2019.
- [53] S. Depeweg, J.-M. Hernandez-Lobato, F. Doshi-Velez, and S. Udfluft. Decomposition of uncertainty in bayesian deep learning for efficient and risk-sensitive learning. In *Proceedings of the 35th International Conference on Machine Learning*, volume 80 of *Proceedings of Machine Learning Research*, pages 1184–1193, 2018.
- [54] P. Izmailov, S. Vikram, M. D. Hoffman, and A. G. Wilson. What are bayesian neural network posteriors really like? *CoRR*, 2021. abs/2104.14421.
- [55] S. C.-H. Yang, W. K. Vong, R. B. Sojitra, T. Folke, and P. Shafto. Mitigating belief projection in explainable artificial intelligence via bayesian teaching. *Scientific Reports*, 11(1):9863, May 2021.
- [56] D. M. Blei, A. Kucukelbir, and J. D. McAuliffe. Variational inference: A review for statisticians. *Journal of the American Statistical Association*, 112(518):859–877, 2017.
- [57] Y. Gal and Z. Ghahramani. Dropout as a bayesian approximation: Representing model uncertainty in deep learning. In *Proceedings of the 33rd International Conference on Machine Learning, ICML'16*, pages 1050–1059, 2016.

- [58] J. Mitros and B. M. Namee. On the validity of bayesian neural networks for uncertainty estimation. In *AICS*, 2019.
- [59] B. Lakshminarayanan, A. Pritzel, and C. Blundell. Simple and scalable predictive uncertainty estimation using deep ensembles. In *Advances in Neural Information Processing Systems 30*, pages 6402–6413. Curran Associates, Inc., 2017.
- [60] A. Chan, A. Alaa, Z. Qian, and M. Van Der Schaar. Unlabelled data improves bayesian uncertainty calibration under covariate shift. In *Proceedings of the 37th International Conference on Machine Learning*, volume 119 of *Proceedings of Machine Learning Research*, pages 1392–1402, Virtual, July 2020.
- [61] M. Opper and O. Winther. A bayesian approach to on-line learning. In *On-line learning in neural networks*, pages 363–378. 1998.
- [62] H. Ritter, A. Botev, and D. Barber. Online structured laplace approximations for overcoming catastrophic forgetting. In *Proceedings of the 32nd International Conference on Neural Information Processing Systems*, NIPS’18, pages 3742–3752, 2018.
- [63] H. M. D. Kabir, A. Khosravi, M. A. Hosen, and S. Nahavandi. Neural network-based uncertainty quantification: A survey of methodologies and applications. *IEEE Access*, 6:36218–36234, 2018.
- [64] K. Krishnamoorthy. *Handbook of Statistical Distributions with Applications*. Chapman & Hall/CRC, Philadelphia, PA, 2 edition, 2020.
- [65] A. K. S. Jardine and A. H. C. Tsang. The role of emerging technologies in physical asset management. In *Maintenance, Replacement, and Reliability*, pages 227–262. CRC Press, Boca Raton, 2021.
- [66] R. Keith Mobley. *Maintenance Fundamentals*. Butterworth-Heinemann, Woburn, MA, 2 edition, 2014.
- [67] H. Chen, L. Li, and Y. Sun. Risk assessment of aero engine failure based on monte carlo simulation. *Procedia Engineering*, 80:415–423, 2014.
- [68] C. Forbes, M. Evans, N. Hastings, and B. Peacock. *Statistical Distributions*. Wiley-Blackwell, Hoboken, NJ, 4 edition, 2010.
- [69] H. Rinne. *The Weibull Distribution*. Chapman & Hall/CRC, Philadelphia, PA, 2020.
- [70] S. Woo. Modern definitions in reliability engineering. In *Reliability Design of Mechanical Systems*, pages 53–99. Springer, Singapore, 2020.

- [71] H. Abdo, J. M. Flaus, and H. Bouguila. Explicit and implicit Bayesian Network-based methods for the maintenance decision-making process. *Computers in Industry*, 117:103215, 2020.
- [72] Y. H. Choi, G. Y. Na, and J. Yang. Fuzzy-inference-based decision-making method for the systematization of statistical process capability control. *Computers in Industry*, 123:103296, 2020.
- [73] Fatih Camci and S. Guclu. Machine learning and reasoning for predictive maintenance in industry. *Computers in Industry*, 117:103214, 2020.
- [74] S. Jaskó, A. Skrop, T. Holczinger, T. Chován, and J. Abonyi. Development of manufacturing execution systems in accordance with Industry 4.0 requirements. *Computers in Industry*, 123:103300, 2020.
- [75] A. Landström, P. Almström, M. Winroth, C. Andersson, A. E. Öberg, M. Kurdve, S. Shahbazi, M. Wiktorsson, C. Windmark, and M. Zackrisson. A life cycle approach to business performance measurement systems. *Procedia Manufacturing*, 25:126–133, 2018.
- [76] Marc Hermans and Péter Tamás. Oee as a tool for stability and continuity. In Péter Tamás et al., editors, *CECOL 2024*, pages 15–40. Springer Nature Switzerland, 2024.
- [77] Marc Hermans and Sándor Fegyverneki. Optimizing maintenance strategies through simulation modeling: A plant simulation approach. *International Journal of Engineering and Applied Sciences*, 11(7):17–??, July 2024.
- [78] Marc Hermans and Péter Tamás. Applying bayesian neural networks to optimize maintenance logistics. *Acta Logistica*, 12(1):xx–yy, March 2026.