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Distributed Systems for Open Object-based
Formal Methods

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Chapman & Hall
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Abstract

Petri Nets and Cellular Networks Experience using Time Warp, Timed and Virtual Time: an Actors and Virtual Time: an
networks

Keywords

performance measures are highly provided. Some

abstract

...
AN OVERVIEW OF DART

A key aspect of DART is a smooth transition from the execution to the time-share. Where threads are the major mean of the physical process modeled by source

![Diagram of sequential simulation control machine](image)

### 2.1 Execution and control machine

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127

Part Three Acrors
A similar factor to the time warp is the adoption of a model that can be viewed as a partial interconnection policy among the control processes.

3. A DASHP Time Warp Mechanism

An out-of-message exception is generated when a message is detected to be unexpected. If a message is detected to be unexpected, the transaction coordinator must rollback the transaction coordinator. The transaction coordinator then notifies the application processes that the transaction coordinator must rollback the transaction message. The application processes then rollback their transactions.

Distributed simulation and time warp

Distributed simulation and time warp are techniques used to simulate large-scale systems in a distributed environment. The goal is to model the behavior of the system over time, taking into account the interactions between different components of the system. This is often done using a combination of discrete event simulation and continuous simulation techniques. The simulation models can be used to analyze system performance, identify bottlenecks, and optimize system design.

Distributed simulation and time warp are particularly useful for simulating real-world systems such as computer networks, manufacturing systems, and transportation systems. These systems are often too large or complex to simulate in a single location, so distributed simulation allows different parts of the system to be simulated independently and then combined to form a complete system model.
$$(y)(y) = (z)(y), \quad (x)(x) \in (y)(x), \quad (y)(x) \in (z)(x)$$

If $x \in y$, then $x \in z$.

4. Time and Spatial Modeling

(continued from previous page)

DISTRIBUTED SIMULATION OF TIMED PETRI NETS

Conditions (see later in this paper).

Thus, to be consistent with the definition of a Petri net, the transitions in the net must be the

$(r)^k$ or $(r)^k$ in the model, where $r$ is the

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A MODEL FOR LARGE CELLULAR NETWORKS

The diagram on the page illustrates a model for large cellular networks, which is crucial for understanding how cellular networks operate. The model shows how different cells communicate and how signals are transmitted within the network. The key components of this model include:

1. **Cells**: Represented as circles with different labels such as 'N', 'O', and 'M'. Each cell is connected to its neighbors, simulating the real-world connectivity of cellular networks.
2. **Channels**: Arrows connecting cells indicate the direction of signal transmission, showing how data moves from one cell to another.
3. **Communication**: The interaction between cells allows for efficient data transmission, ensuring that information is relayed accurately.
4. **Network Structure**: The overall layout represents a hierarchical structure, typical of large-scale cellular networks, where data is transmitted at various layers of the network.

This model is significant for optimizing network performance, improving coverage, and managing the flow of data in large cellular networks.
5.2 Experimental Results

Results are summarized in the next section. Some PS distributions in influenced by the number of FKPs. The PS on the first FKPs can be seen for the performance evaluation of the FKPs. After that, some experiments by using a number of FKPs are performed. The results are summarized in the next section. The input and output are determined from the following set of conditions: random generation, transition, and message density and random transition, the number of FKPs is selected.
REFERENCES

137

138

4.4.3.1

4.3.1.0

3.7.5.1.0

Table 1: Measurement of blocking probability

time

number of users

blocking probability

0.900

3000

1.639.003

4.000
Bo Dong has received a BSc degree in Computer Science from

University of California. His current research interests include distributed systems, parallel simulation, and performance evaluation of wireless systems.