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13. ABSTRACT *(Maximum 200 words)*

This project deals with creating a railroad traffic management system. This system will contain two rail stations and the operations between these two stations will be regulated by the traffic management system. Any number of trains may be allowed on the tracks but the management system will have to monitor this as well. This system will consider departures, arrivals, auxiliary tracks, routing, scheduling, communication controls, etc. to make sure the traffic is regulated.

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Traffic Management System

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SC-COSMIC, University of Houston-Downtown, Oct. 20-21, 1995

Traffic Management System

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Note: This research is supported by Advanced Distributed Simulation Research Consortium and Office of Naval Research

About The Project

1. Traffic Management System
2. Modernization and Module Architecture
3. Goals
4. Modifying the Software
5. Changing the Target Hardware

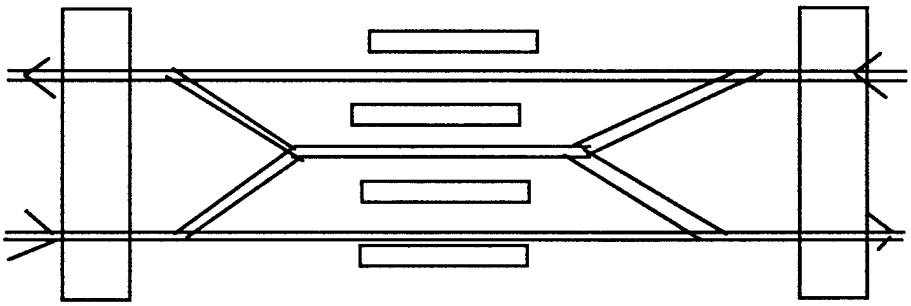
Outline

1. About The Project
2. Requirements of the System
3. Specifications of System
4. Design Specifications
5. Implementation
6. Testing and Maintenance
7. Conclusions

Specifications of System

1. Hardware Architecture
2. Boundaries of the Problem

Load/Unload Platform



Load/Unload Platform

Train ID	Arrival	From	Depart	To
3040	**0700**		**0720**	**Stat B**
7676	0800		0830	**Stat B**
9090	0950		1030	**Stat B**
1121	1050		1120	**Stat B**
4426	1200		1210	**Stat B**
6535	1300		1320	**Stat B**

Requirements of the System

1. Routing
   - Network Control System
     (progress individual routes and tracks)
   - Scheduling
   - Communication Control

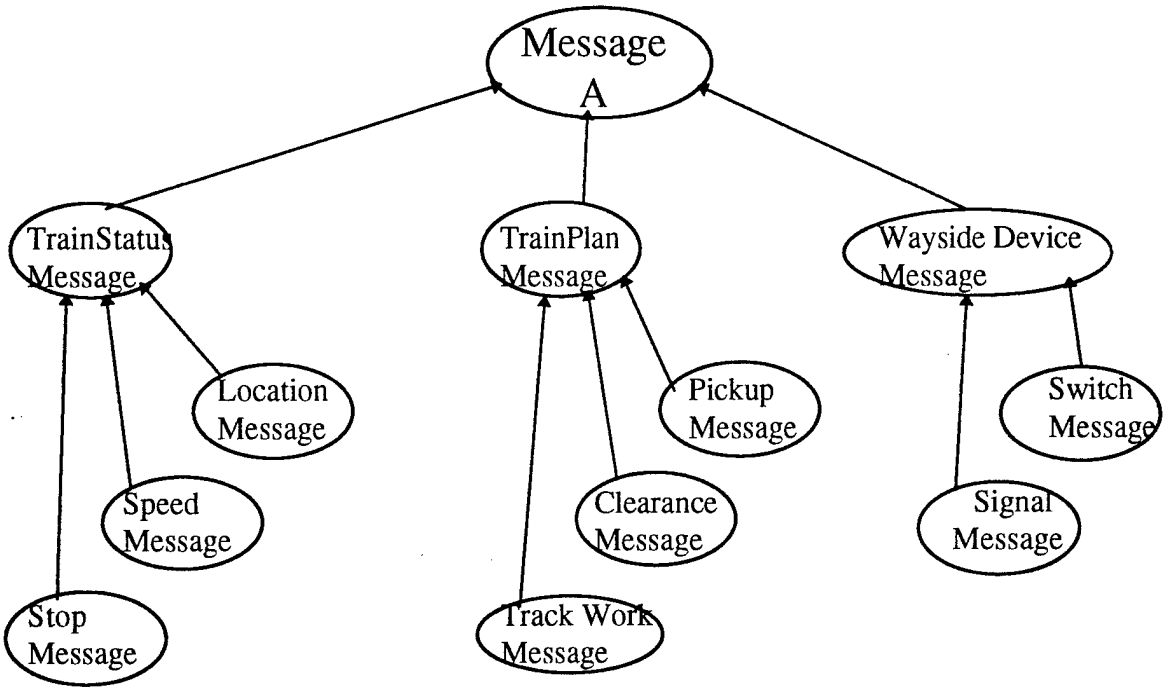
2. Train System Monitoring
   - Locomotive analysis and Reporting System
   - Energy Management System
   - On-Board Display System
   - Data-management Unit
   - Train Location Tracking

3. System and Software Requirements
   (Various Scenario for Processing Daily Train orders)

Implementation

1. Language C++
2. To be completed in Fall 95
3. System RISC-6000
4. Packages to use:
   CADRE/teamwork
   SRI Testing Package

Design Specifications



Testing and Maintenance

1. Tracking the Bugs and Correcting
2. Adding more modules
3. Software Re-use (property of OOD)

Conclusions

1. Object-Oriented Design Allows
   - Adding new Functionality
   - Allows Software Reuse Property
2. Studied the Requirements and Specifications of the project
3. Experiences helps to design and implement of other similar projects
4. Hardware Independent Design