

**Intelligent Transportation Systems**

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**CTMS/CTIS**

**SYSTEM TEST Report for Iteration 1**  
**Version 1.0**

**Approved By**

John Williams  
CDOT ITS Office

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

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DMS Iteration 1 System Test report	Date: April 20, 2005

### **Revision History**

<b>Date</b>	<b>Version</b>	<b>Description</b>	<b>Author</b>
February 23, 2005	1.0	Initial Version	Venky Varadarajan

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## System Test Report for DMS Iteration 1

### 1. Introduction

The purpose of System test report is to list testing effort through this DMS iteration1, no of test cycles, areas tested, status of the defects and requirements not implemented in this CTMS application Iteration1.

#### **1.1 Test Location**

All Testing was performed at the EnRoute and CDOT facilities.

#### **1.2 Test Team**

The EnRoute test team was responsible for the Test Plan and Test Procedures, executing the test, regression testing, reporting any problems found during testing, re-testing corrected problems, and documenting the test results.

#### **1.3 References**

All the documents referred are located at ClearCase folder /CDOTVOB/CTMS/documentation/

### 2. Configuration.

#### **2.1 Setup**

Testing was carried out on Clustered JBOSS server environments on Linux Systems (TOCRHTST01 and TOCRHTST02) with Oracle Database at TOCUX02. Simulators TOCSKYTST01 to 03 were used in place of real signs. Latter part test cases are verified with the real signs. The Real sign types include Skyline dialup Line/character type LED, Flip Fiber signs. The client application was installed on TOCTESTER machine. For details of test environment please check ClearCase document at /CDOTVOB/CTMS/documentation/testing/System & Test Strategy Plan –CTMS.doc

#### **2.2 Test Tools**

Table below shows the test tools that were used during the testing effort.

Name	Manufacturer	Version Number	Tool Description	Comments
ClearCase	Rational	2003.06.10	Software Version Control and Configuration Management System	Used for Configuration Management during the tests

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Name	Manufacturer	Version Number	Tool Description	Comments
ClearQuest	Rational	2003.06.12.2 80.000	Change-Request Management System	Used for Problem Reporting and Change Request Tracking during the tests
SQL Plus	Oracle.	9	Database query tool for interfacing with a database	Allows for inspection of database tables via ad hoc queries and pre-programmed SQL scripts.
Test Manager	Rational		Test Case management	Used for developing test case and management
Manual test	Rational		TestCase Development	Used for developing test cases
JRobot	Rational		Automated testing	Used for Automated testing
Requisite Pro	Rational	8.22.0007.1	Requirement Management	Used for capturing Requirements

### 3. Test Results

Testing was carried out configuration described above. Ant was used to the build application and copied over to the Test environments. Environment variables were set in the. Profile and build properties files.

This Iteration was developed in different development phases namely

Elaboration1  
Construction1 and  
Construction2

The certain numbers of UseCases were addressed in each phase as part of the code development.

Testing was planned for each development phase and documented. General test plans are documented in System & Test Strategy Plan –CTMS.doc. Test procedure document was published for each phase detailing use cases to be test for the phase, the scenarios, test cases and requirement verification metrics

Release Notes published for each Testing cycle, where list of use cases to be tested and list of defects to be tested in that testing cycle were documented. At the end of each cycle defect reports were published.

For documents please refer to ClearCase

There were 3 rounds of testing Elaboration1, 5 rounds for Construction1 and 3 rounds of testing for Construction2.

The related test documents are versioned in ClearCase under documentation/testing folders. Below table lists all the documents. For test details such as build number, use cases tested, defects found, status, date tested etc please refer to these documents.

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No	Development phase	Test Round	Release notes	Defect report
1	Elaboration 1	1	Release Notes for Elaboration Phase 1_R1build407.doc	CTMSE1_R1build407_Defect Report.doc
2	Elaboration 1	2	Release Notes for Elaboration Phase 1_R2build428.doc	CTMSE1_R2build428_Defect Report.doc
3	Elaboration 1	3	Release Notes for Elaboration Phase 1_R3build475.doc	CTMSE1_R3build475_Defect Report.doc
4	Construction 1	1	Release Notes for Construction Phase 1_R1build543.doc	CTMSC1_R1build543_Defect Report.doc
5	Construction 1	2	Release Notes for Construction Phase 1_R2build778.doc	CTMSC1_R2build780_Defect Report.doc
6	Construction 1	3	Release Notes for Construction Phase 1_R3build789.doc	CTMSC1_R3build789_Defect Report.doc
7	Construction 1	4	Release Notes for Construction Phase 1_R4build791.doc	CTMSC1_R4build791_Defect Report.doc
8	Construction 1	5	Release Notes for Construction Phase 1_R5build792.doc	CTMSC1_R5build792_Defect Report.doc
9	Construction 2	1	Release Notes for Construction Phase 2_R1build793.doc	CTMSC2_R1build793_Defect Report.doc
10	Construction 2	2	Release Notes for Construction Phase 2_R2build804.doc	CTMSC2_R2build804_Defect Report.doc
11	Construction 2	3	Release Notes for Construction Phase 2_R3build814.doc	CTMSC2_R2build814_Defect Report.doc

Further Cumulative Defects.doc lists the cumulative defects for all rounds of testing.

### 3.1 Test Conclusions

All system requirements were tested successfully. In general all the requirements were met except for the list below where it got postponed to the next iteration.

1. Delete Pool
2. Test Port
3. Alarms

Totally 177 defects were found as the result of system testing. All are resolved and but for the 11 defects which are postponed to the next iteration. For the details of the defect please refer to ClearQuest application

#### 3.1.1 Defect summary Metrics at the end of the DMS Iteration 1

	Status	Closed	Open	Postponed	Total
Severity					
Critical		1	0	0	1
Major		31	2	0	33
Average		109	0	3	112
Minor		23	0	8	31
Total		164	2	11	177

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### 3.1.2 Defect summary details at the end of the DMS Iteration 1

No	ID	State	Build Found	Severity	Priority	Headline
1	atms00000452	Re-Assigned	Build_00789	2 - Major	2 - Give High Attention	Add DMS - Couldn't select Device by Right Click
2	atms00000474	Re-Assigned	Build_00791	2 - Major	2 - Give High Attention	JMS Fail over and processing in Cluster
3	atms00000445	Postponed	Build_00789	3 - Average	3 - Normal Queue	DB refresh - Could not add user
4	atms00000497	Postponed	Build_00792	3 - Average	3 - Normal Queue	Client Profile Save option
5	atms00000505	Postponed	Build_00792	3 - Average	3 - Normal Queue	COMM Pool -DMS relation ship
6	atms00000323	Postponed		4 - Minor	4 - Low Priority	USER_ID Change to USER_PROFILE_ID
7	atms00000471	Postponed	Build_00791	4 - Minor	3 - Normal Queue	Fresh DB issues
8	atms00000473	Postponed	Build_00791	4 - Minor	4 - Low Priority	Server Shutdown and JMS instruction state
9	atms00000495	Postponed	Build_00791	4 - Minor	3 - Normal Queue	Java.exe No Disk error - During CTMS UI startup
10	atms00000533	Postponed	Build_00804	4 - Minor	4 - Low Priority	View details - ok cancel button
11	atms00000540	Postponed	Build_00809	4 - Minor	4 - Low Priority	Status Console - Ins .Q Use Column
12	atms00000541	Postponed	Build_00809	4 - Minor	4 - Low Priority	Title: About Screen Needs Image Update
13	atms00000543	Postponed	Build_00809	4 - Minor	4 - Low Priority	Temperature Control error on the View Details Tab

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## 4. Sign Off

Signature of this document confirms that you have reviewed the applicable documents listed in Related Documents section and accept these results as proof of appropriate systems testing for this application.

John Williams	Project Management	ITS
Name	Function	Department

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Signature

Pawan Kharbanda	Project Lead Software, Design	EnRoute TS Inc
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Venky Varadarajan	Systems Tester	EnRoute TS Inc
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