

Intelligent Transportation Systems

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CTMS/CTIS

UC CTMS 5.20 - Read from Sign

Version 1.8

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UC CTMS 5.20 - Read from Sign	Date: April 19, 2005

Revision History

Date	Version	Description	Author
March 29, 2004	1.0	Initial Version	Raj Chaudhuri
June 15, 2004	1.1	Updated flow. Added Basic Flow	Raj Chaudhuri
July 12, 2004	1.1	Fixed typos	Raj Chaudhuri
July 21, 2004	1.2	Added instruction priority. Added online special requirement	Raj Chaudhuri
July 27, 2004	1.3	Changed Online attribute to Offline status	Raj Chaudhuri
August 2, 2004	1.4	Added prompt to read from sign	Raj Chaudhuri
August 16, 2004	1.4	Added special requirement	Raj Chaudhuri
August 24, 2004	1.5	Added entry points and clarification steps to flows. Fixed typos. Added assumptions	Raj Chaudhuri
November 4, 2004	1.6	Added verbiage around DMS not belonging to security group (3.1) in alt flow; indented 3.4.3.2 in alternate flow. Fixed typo.	Nancie Fay
November 24, 2004	1.7	Added handling of error windows; changed Yes/NO to OK and Cancel	Nancie Fay
January 4, 2005	1.8	Reordered the flows to: 1) Have admin select DMS before system enables Configure menu option 2) Changed entry point for admin after adding DMS 3) Separate discreet system actions (determine security group, display Configure screen) to allow alternate actions at the correct place. 4) Remove special handling for a DMS with status = NEW 5) Changed place where admin can 'Cancel' out of window. Changed text of Read from Sign message.	Nancie Fay
January 5, 2005	1.8	Formatting changes	Nancie Fay
January 17, 2005	1.8	Removed all references to alarms and UC Add Alarm. Added system check if window is open before error msg displayed. Added system check if window is open and asking user to update data before refreshing screen	Nancie Fay
January 24, 2005	1.8	Removed step 12.2.1 as it is incorrect and irrelevant	Raj Chaudhuri
January 25, 2005	1.8	Removed setting of status to Failed	Raj Chaudhuri

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1. Use Case

1.1 Abstract

This allows Maintenance or Administrator to perform the Read from Sign function on a sign that belongs to their security group. This gathers the latest sign data from a particular sign. The data gathered will be a subset of the data that is available on the sign

1.2 Actor(s)

Actor	Description
Administrator	The System Administrator for the Colorado Transportation Management Center (CTMC)
Maintenance	The Maintenance person on duty for the Colorado Transportation Management Center (CTMC)

2. Flow of Events

2.1 Basic Flow

1. The system has detected that the logged in user is either Maintenance or an Administrator (referred to as admin from here on in this UC).
2. The admin selects a DMS.
3. The system has enabled the Manage > Sign > Configure menu element (refer to UC Manage DMS for details).
4. The admin selects Configure from the menu.
5. The system verifies that the DMS belongs to the admin's security group, that the status is not Offline.
6. The system displays the Configure DMS default screen. The system displays a button to 'Read from Sign' (refer to UC Configure DMS for additional checks and all the elements displayed).
7. The admin clicks on 'Read from Sign'
8. The system requests the admin to confirm the request. The system displays the following text: "Reading from the sign will clear all settings. Are you sure you want to continue?" The system provides button for: Yes and No
9. The admin clicks on Yes
10. The system sends a Read Configuration Request to the particular DMS (Refer to UC Issue Device Instruction for details).
11. The system waits for a specified period of time for the instruction to return (see UC Issue Device Instruction for details).
12. The system receives all the data successfully from the device
13. The system saves/updates the data for the DMS. This includes the elements received as well as the last updated time. The system sets the status to OK (refer to UC Poll DMS for rules around this).
14. The system logs this event. It passes the following elements to UC Log User Activity: Task Name (Read from Sign), Time (current time), Owner (logged in user), ID (DMS Device ID), Device Type (DMS Device Type), Message Text (blank), Username (blank), Instruction ID (Task instruction ID), Notes (blank)
15. The system displays this information (refer to UC Configure DMS for details).

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2.2 Alternate Flow

1. The system has detected that the logged in user is either Maintenance or an Administrator (referred to as admin from here on in this UC).
2. The admin selects a DMS.
3. The system has enabled the Manage > Sign > Configure menu element (refer to UC Manage DMS for details).
 - 3.1. The system has enabled the Configure option on the context sensitive menu.
4. The admin selects Configure from the menu.
 - 4.1. The Maintenance or Administrator has successfully completed the Add DMS steps and has elected to 'Configure Sign'.
 - 4.2. Go to step 7.
5. The system verifies that the DMS belongs to the admin's security group, that the status is not Offline.
 - 5.1. In the event DMS does NOT belong to the admin's security group, the system displays the following message: "The following DMS does not belong to your Security Group – [Device ID – Device Common Name] and this task cannot be performed on it"
 - 5.2. The system present a button 'OK' to acknowledge this message
 - 5.3. The admin clicks on OK
 - 5.4. The system displays the navigate desktop screen
6. The system displays the Configure DMS default screen. The system displays a button to 'Read from Sign' (refer to UC Configure DMS for additional checks and all the elements displayed).
7. The admin clicks on 'Read from Sign'
 - 7.1. The admin clicks on Cancel
 - 7.2. The system displays the Navigate Desktop screen
8. The system requests the admin to confirm the request. The system displays the following text: "Reading from the sign will clear all settings. Are you sure you want to continue?" The system provides button for: Yes and No
9. The admin clicks on Yes
 - 9.1. The admin clicks on No.
 - 9.2. The system closes the warning box. Configure DMS window remains open.
 - 9.3. Go to end.
10. The system sends a Read Configuration Request to the particular DMS (Refer to UC Issue Device Instruction for details).
11. The system waits for a specified period of time for the instruction to return (see UC Issue Device Instruction for details).
 - 11.1. In the event the instruction does not return within the timeout period, the system logs this event with the additional data that this task was not successful (and that it timed out)
 - 11.2. In the event the Configure DMS window is still open the system displays an error acknowledgement message in a separate window to the user. The system provides a button to acknowledge the error (OK).
 - 11.3. The user clicks OK.
 - 11.4. The system closes the error acknowledgement window.
 - 11.5. Go to end
12. The system receives all the data successfully from the device
 - 12.1. The system does not receive all the data from the device (i.e. does not get some data that it should have). The system logs this event with the information that all of the data was not received. The following elements are passed to UC Log User Activity: Task Name (Read from Sign), Time (current time), Owner (logged in user), ID (DMS Device ID), Device Type (DMS Device Type), Message Text (blank), Username (blank), Instruction ID (Task instruction ID), Notes (blank)

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- 12.2. In the event the Configure DMS window is still open, the system displays an error acknowledgement message in a separate window to the user. The system provides a button to acknowledge the error (OK).
- 12.3. The user clicks OK.
- 12.4. The system closes the error acknowledgement window.
- 12.5. Go to end.
13. The system saves/updates the data for the DMS. This includes the elements received as well as the last updated time. The system sets the status to OK (refer to UC Configure DMS for rules around this).
14. The system logs this event. It passes the following elements to UC Log User Activity: Task Name (Read from Sign), Time (current time), Owner (logged in user), ID (DMS Device ID), Device Type (DMS Device Type), Message Text (blank), Username (blank), Instruction ID (Task instruction ID), Notes (blank)
15. In the event the Configure DMS window is still open, the system queries if the user wants to see the new results. The system presents the following buttons: OK and Cancel.
 - 15.1. In the event the Configure DMS window has been closed, the system does not query if the user wants to see the new results.
 - 15.2. Go to end.
16. The user clicks on OK.
 - 16.1. The user clicks on Cancel.
 - 16.2. Go to end.
17. The system refreshes the data elements with the new information returned from this successful Read from Sign.

3. Special Requirements

1. This task will always have the priority of 'medium' when issued by a user.
2. This task can only be performed on devices whose status is NOT Offline.
3. This task must be performed on devices whose status is NEW.
4. In the event a DMS has a status of 'NEW' and a Read from Sign is attempted, but NOT successful, the system will return to the Configure DMS screen.
5. The screen will be modal.

4. Assumptions

5. Pre-Conditions

UC CTMS 5.00 – Manage DMS
 UC CTMS 5.10 – Add DMS
 UC CTMS 5.30 – Configure DMSs

6. Post-Conditions

The latest configuration data is read from the sign and displayed to the admin

7. Extension Points

UC CTMS 4.10 – Issue Device Instruction
 UC CTMS 5.30 – Configure DMS (displays all the data received from this task)
 UC CTMS 8.10 – Log User Activity
 UC CTMS 3.50 – Poll DMS (only for rules around setting status)

8. Issues / Constraints / Questions

9. Data Elements

Refer to UC Configure DMS for details

Name	Description	Validation	Example
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