

**Oracle Utilities Mobile Workforce  
Management**

Dispatch Workstation User's Guide

Release 1.5.0.21

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# Chapter 1

## The Basics

This chapter covers the following topics:

- **Dispatch Workstation Logon**
- **Dispatch Area Assignment**
- **Control Menu Functions**
- **Dispatch Workstation Logoff**
- **Session Timeout Interval**

### Dispatch Workstation Logon



Logon- Product Version 1.5.0.0

**Oracle Utilities Mobile Workforce Management**

Please enter your User ID and Password below, and then press the Login button.

User ID:

Password:

Login Cancel Help

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### Function/Process Description

The Dispatch Workstation (DW) Logon function enables the user to log onto the Oracle Utilities Mobile Workforce Management Dispatch Workstation application. The Oracle Utilities Mobile Workforce Management Server Application (Server) validates the logon information. If any of the logon information is in error, an error message is displayed and the user should re-enter the data. The Ok button will validate and send the logon information to the Server, the Cancel button will

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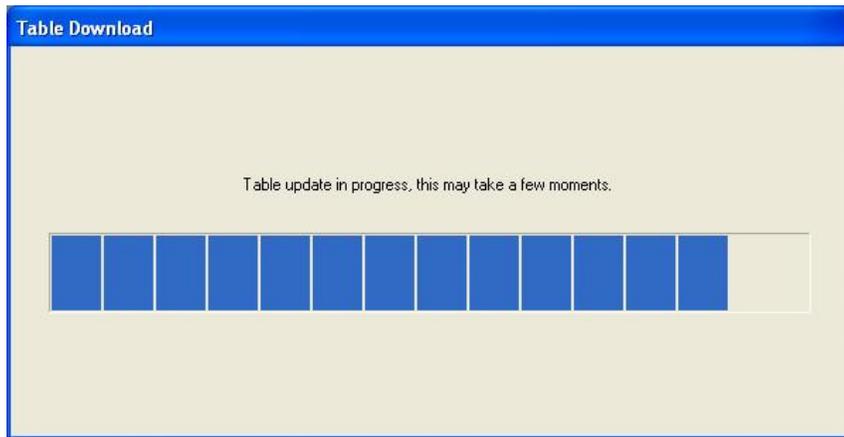
cancel the logon function, and the Help button will invoke the online help facility. If the logon function is cancelled, the Dispatch Workstation application is closed.

The Server will validate the logon information. The user id/password must be valid and cannot be currently logged on to an Oracle Utilities Mobile Workforce Management application. The Server will generate a logon reply transaction and send it back to the application. The transaction will contain a return code indicating the success of the logon. If the return code indicates the logon was unsuccessful, an error message is displayed on the Dispatch Workstation desktop stating the reason for the logon failure. If the return code indicates the logon successful, the Dispatch Workstation application will complete the logon process.

If the user's password has expired, the user will be required to change their password before they can continue. See **Change Password** on page 1-20.

The reply transaction contains a list of the current version numbers of the validation/decode tables from the Server. The application will compare the Server version numbers against its own version numbers. If any of the versions are different, the Dispatch Workstation application will create a transaction requesting the updated tables. Since the updated tables can affect processing in the Dispatch Workstation application, the user will not be able to perform any processing until the requested tables have been received.

A table download progress screen is displayed on the desktop.



The length of the progress bar is based on the number of tables requested. The progress screen will be dismissed when all requested tables have been received. If the tables have not been received within 300 seconds, a message stating that all tables were not downloaded and processing may be affected is displayed on the user's desktop.

The user ID is used by the system to identify the user's access level. The Oracle Utilities Mobile Workforce Management system supports seven access levels. These access levels are System Administrator, Dispatcher Supervisor, Service Supervisor, Dispatcher, Service Representative, Operations, and Browse-Only.

### **Automatic Shutdown Prior to Hibernation or Stand By**

The Dispatch Workstation application will shut down automatically when the computer goes into hibernation or standby mode. The Dispatch Workstation user will need to restart the application and log in again.

## **Data Fields**

Data fields are described below:

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<b>Field Name</b>	<b>Description</b>
-------------------	--------------------

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User ID	The Id of the user logging on.
Password	The password of the user logging on. As a security measure, the password will be displayed as asterisks when entered.

---

## Interfaces

The Dispatch Workstation Logon data entered on this screen is sent to the Server in the Dispatch Workstation Logon transaction. The Server will validate and process the data. The Server will generate a Dispatch Workstation Logon Reply transaction and send it back to the Dispatch Workstation. If any of the data is invalid, an error code will be returned to the Dispatch Workstation in the Logon Reply transaction. The Server writes a message to the Audit list box and log stating that the User has logged on.

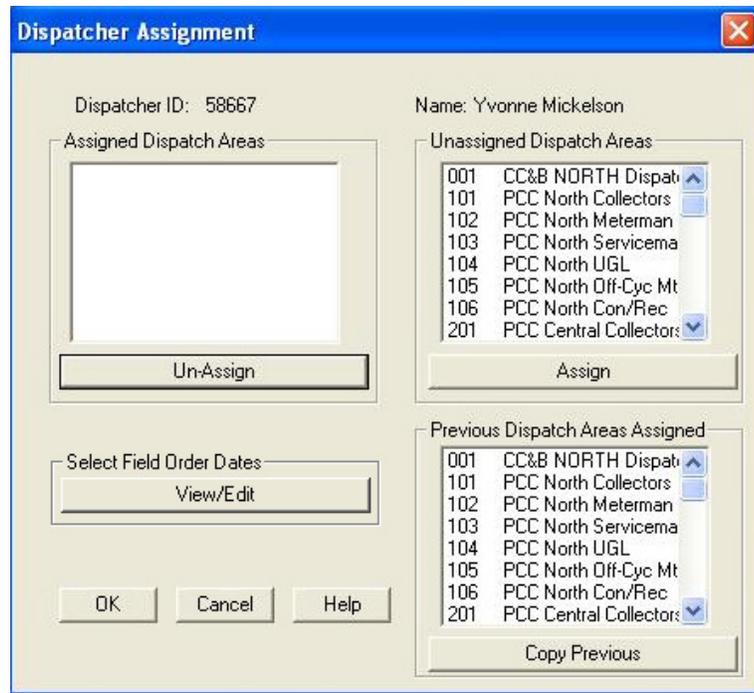
## Validation

The user must enter a User ID and password. The length of the User ID will be limited to 8 alphanumeric characters. The length of the password must be between 5 and 8 alphanumeric characters. The Server validates the User ID and password.

## Data Updates

The sign on time will be stored in the Personnel database table (DHTPERS) for the user. A record will be inserted into the Logon table (DHTLOGON) for the user.

# Dispatch Area Assignment

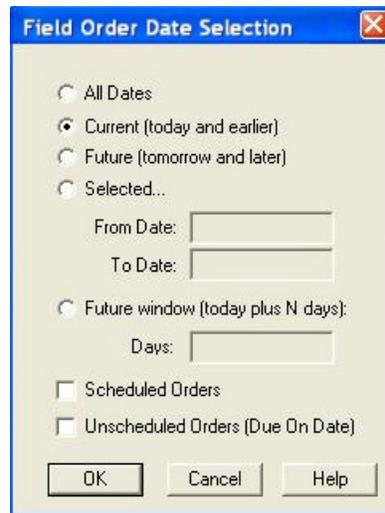


## Function/Process Description

This Dispatch Area Assignment function enables the user to select the dispatch areas that they will be monitoring during this session. All users of the Dispatch Workstation application, except Operations, must select at least one dispatch area. A dispatch area is a pre-defined grouping of service areas.

The Assigned list box lists the dispatch areas that the user is currently monitoring. The Unassigned list box lists the dispatch areas that the user is not currently monitoring. The Previous Assigned list box lists the Dispatcher areas the user was monitoring during the last Dispatch Workstation session. If the user chooses to monitor the same areas as the last session, they can select the 'Copy Previous' button and the previous dispatch areas are automatically loaded into the Assigned list box. Otherwise, the user must select one or more areas in the Unassigned list box and press the 'Assign' button to load the areas into the Assigned list box. The user can remove areas from the Assigned list box by selecting one or more areas in the Assigned list box and pressing the 'Unassign' button. The selected areas are moved from the Assigned list box back to the Unassigned list box.

If the user clicks the View/Edit button under Select Field Order Dates, the Field Order Date Selection screen displays, as shown in the following figure.



From this screen, you can select which field orders to download based on the field order's schedule from date or due by date. Refer to **Select Field Order Dates** on page 1-14 for more information about this screen.

After the dispatch areas have been assigned and, optionally, field order date selections have been made, the Dispatch Workstation application will read the appropriate orders and crews from the database into memory. The crew data is copied to the Crew directory on the hard drive. Only those crews and orders that correspond to the selected dispatch areas (and meet the date selection criteria, if specified) are read into memory. The application will display the order download progress screen while the orders are being read.



The screen displays the number of orders to be read and number of orders that have been read. The length of the progress bar is based on the number of orders to be read. The progress screen is dismissed when all orders have been read. If the orders have not been read within x seconds where x is the value of the number of seconds to wait for initial order download (NumSecsForOrderDownload) parameter, a message stating that all orders were not read is displayed on the user's desktop.

## Data Fields

Data fields are described below:

Field Name	Description
Dispatcher ID	The Id of the user logged on
Name	The name of the user logged on.
Assigned Dispatch Areas	The list of dispatch areas currently assigned to the user. When the OK button is pressed, this list will contain the dispatch areas that will be assigned to the user.
Unassigned Dispatch Areas	The list of dispatch areas that are not currently assigned or will not be assigned to the user.
Previous Dispatch Areas Assigned	The list of dispatch areas the user was assigned during the last Dispatch Workstation session.

## Interfaces

The Dispatch Workstation application updates the database directly. There is no interface to another external process.

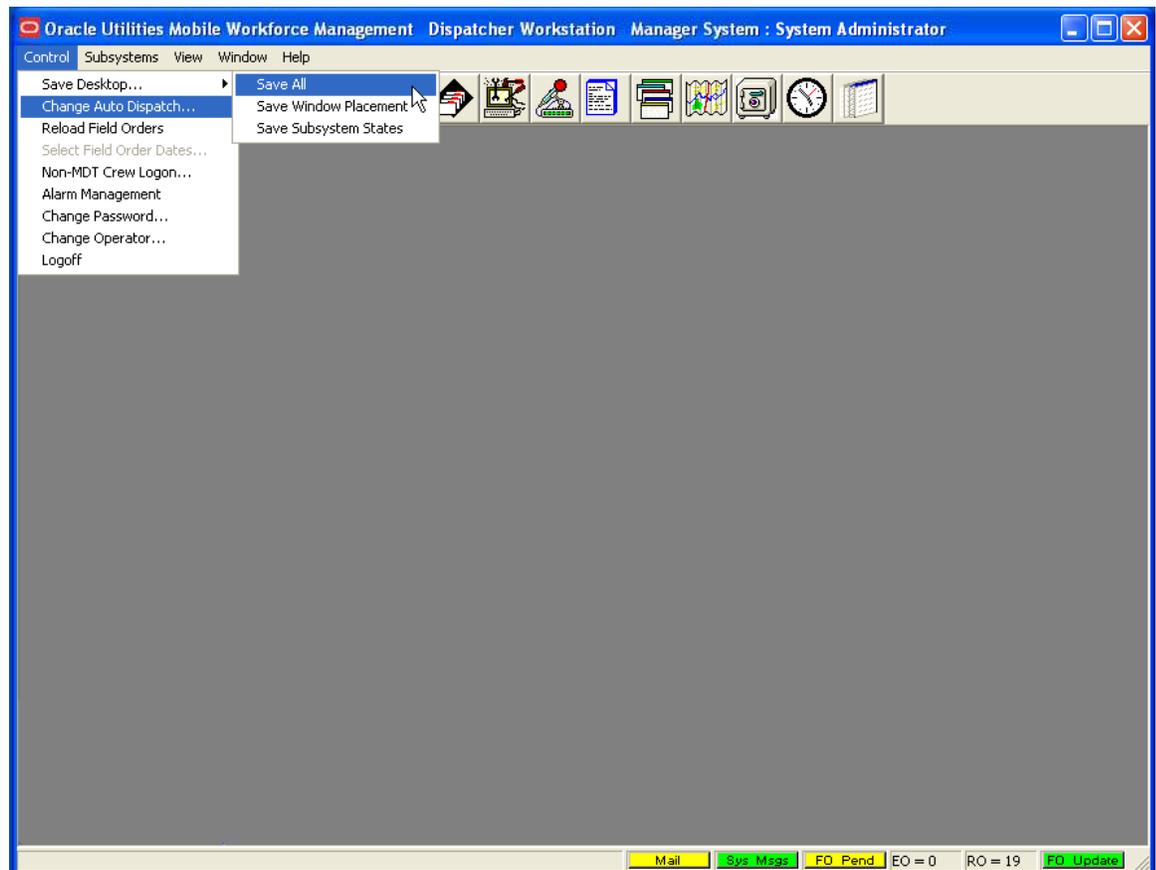
## Validation

The user must assign one or more areas to monitor before the Ok button can be pressed. If the User cancels this screen, they will automatically be logged off and the Dispatch Workstation application is shutdown.

## Data Updates

A record will be inserted into the Personnel to Dispatch Area relationship database table (DHTPTOD) for each area that is assigned.

# Dispatch Workstation Desktop



## Function/Process Description

This window is the initial screen displayed to the user the first time they successfully log onto the Dispatch Workstation application and select dispatch areas to monitor. The System Messages subsystem starts automatically every time a user logs on. By default, no other subsystems start automatically. All Dispatch Workstation windows/screens will be displayed in the Dispatch Workstation desktop frame.

The menu bar is displayed below the title bar. The menu will always have the following menu items: Control, Subsystems, Window, and Help. These menu items are always available, but one or more of the sub-menu items may be disabled based on the settings in the DHTDWINI configuration database table. The entries in the DHTDWINI table define the requirements for enabling/disabling menu items/buttons (e.g. INI parameters, access level, required data values, etc.).

## Menus

### Control Menu

The **C**ontrol menu contains the following sub-menu items:

#### Save Desktop

This sub-menu item contains another sub-menu containing three items: Save All, Save Window Placement, and Save Subsystem States. These three save functions only apply to the following subsystems: Field Orders, Crew Status, Mail, System Messages, and Mapping. Save Window Placement will save the current screen placement of the affected subsystems. Once the placement

has been saved, the various subsystem screens will initially be displayed in the saved position. Save Subsystem States will save which subsystem state of the affected subsystems. Once the states have been saved, the various subsystems will start automatically when the user logs on to the Dispatch Workstation application. 'Save All' will save the placement and states of the affected subsystems. This data is stored locally on the hard drive for the user logged on.

### **Change Auto Dispatch...**

This menu item is enabled based on the Menu Item Access parameters. Refer to **Change Auto Dispatch** on page 1-12 for more information.

### **Reload Field Orders**

The Reload Field Orders menu item will cause the application to request the field orders that the logged on user is monitoring from the database and reload into memory. This menu item is normally not used, but can be helpful if the data in memory gets out of sync with the database.

### **Select Field Order Dates...**

Refer to **Select Field Order Dates** on page 1-14.

### **Non-MDT Crew Logon...**

This menu item is enabled based on the Menu Item Access parameters. Refer to **Non-MDT Crew Logon** on page 1-16.

### **Alarm Management...**

This menu item is enabled based on the Menu Item Access parameters. Refer to **Alarms and Notifications** on page 14-1.

### **Change Password...**

Refer to **Change Password** on page 1-20.

### **Change Operator...**

Refer to **Change Operator** on page 1-22.

### **Logoff**

Refer to **Dispatch Workstation Logoff** on page 1-24.

### **Exit...**

This menu item will change depending on the subsystem that has focus. This menu item provides the user another to exit the subsystem that has focus.

### **Custom...**

This sub-menu item contains another sub-menu containing custom menu items. If this implementation of the Dispatcher Workstation does not have any Custom menu items, there will be not sub-menu. Refer to the specific project documentation for descriptions of the Custom menu items.

## **Subsystems Menu**

The **Subsystems** menu contains a sub-menu item for each Dispatch Workstation subsystem. The Dispatch Workstation subsystems are:

- Field Orders
- Crew Status
- Mail
- Admin Tool
- System Messages

- Batch Processing
- Dispatcher Functions
- Reports
- Routines
- Mapping
- Archive Field Orders
- Timesheet
- Gantt Chart.

Selecting a subsystem menu item will cause the subsystem to be started or, if the subsystem is already started, set focus to the selected subsystem. Some of the subsystems can also be accessed by using the system-wide hot key combinations: **CTRL+A**, **CTRL+E**, **CTRL+N**, **CTRL+P**, **CTRL+S**, **CTRL+U**, **CTRL+W**, or **CTRL+X** (field order subsystem), **CTRL+C** (crew status subsystem), and **CTRL+M** (mail subsystem). A check mark will appear next to each subsystem that is currently started.

The subsystem sub-menu items will be disabled if the user does not have the proper access level for the subsystem. Additionally, the Mail subsystem menu item will be disabled if the disable mail subsystem (Disable\_Mail) parameter is 'Yes', the Reports subsystem menu item will be disabled if the disable reports subsystem (Disable\_Reports) parameter is 'Yes', the Routines subsystem menu item will be disabled if the disable routines subsystem (Disable\_Routines) parameter is 'Yes', and the Time Sheet subsystem menu item will be disabled if the enable timesheets subsystem (EnableTimesheets) parameter is not 'ON'.

The following subsystems will add/change the Actions and View sub-menu items when they have focus: Field Orders, Crew Status, Mail, System Messages, Routines, Mapping, Archive Field Orders, and Timesheet. The contents of the Actions and View sub-menu items will be discussed with each subsystem.

## Windows Menu

The **W**indows menu item contains the standard window functions of **C**ascade and **T**ile. This menu item only applies to the non-minimized subsystems. The Windows menu item will also contain sub-menu item for each started subsystem. This function provides the user another way to navigate to a started subsystem.

## Help Menu

The **H**elp menu item contains sub-menu items for starting the online help facility. There is also a sub-menu item for accessing the 'About' information for the application.

## Toolbar

The Dispatch Workstation Desktop toolbar is displayed below the menu. The Toolbar has a button for each subsystem. The toolbar buttons correspond to the Subsystem sub-menu items. If the user does not have access to the subsystem, the button will be disabled. Additionally, the Mail subsystem button will be disabled if the Disable\_Mail parameter is 'Yes', the Reports subsystem button will be disabled if the Disable\_Reports parameter is 'Yes', the Routines subsystem button will be disabled if the Disable\_Routines parameter is 'Yes', and the Time Sheet subsystem menu item will be disabled if the enable timesheets subsystem (EnableTimesheets) parameter is not 'ON'. If the subsystem has been started, the button will have a sunken effect.

## Status Bar

The status bar is displayed at the bottom of the desktop screen at all times. The status bar is made up of several parts: Message section, Mail indicator, System Messages indicator, Pending Field Order indicator, pending Emergency field order count, pending regular field order count, and Field Order update indicator.

Components of the Status Bar include:

Status Bar Item	Description
Message section	This section is used to display some error messages and help messages when the user passes the cursor over items that have associated help.
Mail indicator	<p>This visual indicator communicates the status of mail messages. The indicator is also a button that can be used to access the Mail subsystem by clicking on it. The color of the button indicates the status of the user's mail messages.</p> <ul style="list-style-type: none"> <li>green indicates the user has no unread mail messages,</li> <li>yellow indicates the user has regular unread mail messages, and</li> <li>red indicates the user has emergency unread mail messages.</li> </ul>
System Messages indicator	<p>This visual indicator communicates the status of system messages. The indicator is also a button that can be used to access the System Messages subsystem by clicking on it. The color of the button indicates the status of system messages.</p> <ul style="list-style-type: none"> <li>green indicates the user has no new system messages,</li> <li>yellow indicates the user has received new informational or warning level system messages, and</li> <li>red indicates the user has received new error level system messages.</li> </ul> <p>Once the user navigates to the System Messages subsystem, the indicator will be reset to green.</p>
Pending Field Order indicator	<p>This visual indicator communicates the presence and type of pending field orders. This indicator is also a button that can be used to access the Field Order subsystem in pending order view by clicking on it. A pending field order is one with the status of unassigned, assigned, or allocated that needs to be dispatched. If the Dispatch_Future DHTDWINI parameter is 'Yes', this indicator will take into consideration future orders (early start date and due date greater than the current date), as well as current/previous orders. The color of the button indicates the presence and type of pending field orders in the user's assigned dispatch areas.</p> <ul style="list-style-type: none"> <li>green indicates there are no pending field orders,</li> <li>yellow indicates there are regular pending field orders, and</li> <li>red indicates there are emergency pending field orders.</li> </ul>
Pending Emergency Field Order Count	<p>This section contains a count of the number of pending emergency field orders in the user's assigned dispatch areas prefixed with the label 'EO'. This count should match the number of emergency orders in the field order list when Pending Orders View is displayed. If the Dispatch_Future DHTDWINI parameter is 'Yes', this count will include future orders (early start date and due on date greater than the current date), as well as current/previous orders.</p>

Status Bar Item	Description
Pending Regular Field Order Count	This section contains a count of the number of pending regular field orders in the user's assigned dispatch areas prefixed with the label 'RO'. This count should match the number of regular orders in the field order list when Pending Orders View is displayed. If the Dispatch_Future DHTDWINI parameter is 'Yes', this count will include future orders (early start date and due on date greater than the current date), as well as current/previous orders.
Field Order Update indicator	<p>This visual indicator communicates that a field order that the user is monitoring has been updated. The field order list is not updated automatically; the user must request for the field order list to be refreshed. This indicator is also a button that can be used to refresh the Field Order list by clicking on it. The color of the button indicates the field order needs to be refreshed.</p> <ul style="list-style-type: none"> <li>• green indicates the Field order list is current and does not need to be refreshed.</li> <li>• blue indicates that one or more field orders have been updated and the field order list needs to be refreshed.</li> </ul> <p>The field order list can be refreshed by clicking the Field Order Update indicator, pressing the F5 key, or by selecting the Refresh menu item under the View menu in the Field Order subsystem.</p>

## Data Fields

None

## Interfaces

None.

## Validation

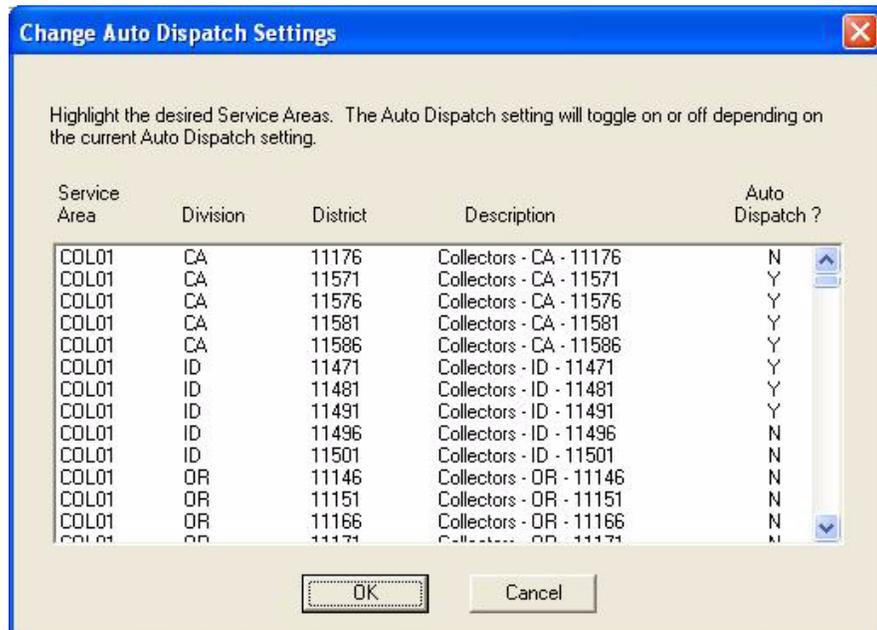
None

## Data Updates

If the user selects one of the Save Desktop menu items, the appropriate information for the affected subsystem will be stored in the User Options database table (DHTUOPTS) and on the hard drive.

## Control Menu Functions

### Change Auto Dispatch



#### Function/Process Description

This function allows a user with appropriate access level to change the 'Auto Dispatch' setting for one or more service areas. The appropriate access level is determined by DHTDWINI parameter settings.

Auto Dispatch is a process where an assigned field order will automatically be dispatched to the appropriate crew if auto dispatch is turned on. Auto dispatch is specified at two-levels: service area and field order type. For a field order to be automatically dispatched, the auto dispatch setting for the service area and the field order type must be 'Y'.

The user will select the service areas whose auto dispatch settings should be changed. The setting will be toggled on/off. In other words, if the current setting is 'Y', then if selected, the setting will be changed to 'N'.

The user can select as many service areas as desired.

When the auto dispatch setting has been changed for any service area, a user notification box will be displayed on all logged on Dispatch Workstation user's desktop as notification that the setting has been changed.

#### Data Fields

The screen consists of a list box that contains the following data pertaining to service areas: Service area id, Division, district, service area description, and current auto dispatch setting. Only the service areas that are assigned to the dispatch areas currently assigned to the logged on user will be displayed.

#### Interfaces

When the user selects the Ok button, a change auto dispatch transaction is generated and sent to the Server for processing. A notification transaction will be generated and sent to all logged on Dispatch Workstation users as notification of the change of the service area's auto dispatch setting.

### **Validation**

At least one service area must be selected before the Ok button can be selected.

### **Data Updates**

The Server will update the auto dispatch setting for the specified service areas in the Service Area database table (DHTSERV).

## Select Field Order Dates

### Function/Process Description

This function allows the logged on Dispatch Workstation user to limit the field orders that are read into memory based on the field order's schedule from date and due by date. All active field orders that are in the user's assigned dispatch area that meets the specified selection will be read into memory. Default settings in DHTDWINI may be used at the initial order download if there's no user options previously saved in DHTUOPTS. This means that they are available for display in the field order subsystem.

If this screen was invoked from the Select Field Order Dates option on the Control Menu, then field orders are automatically reloaded based on these settings when the user clicks the OK button.

If this screen was invoked from the View/Edit button on the Dispatcher Assignment screen, then clicking the OK button returns the user to the Dispatcher Assignment screen and the selected field order date settings are used when field orders are loaded.

### Data Fields

Data fields are described below:

Field Name	Description
All Dates	Selecting this radio button will cause all field orders in the user's assigned dispatch area to be read into memory when the field orders are reloaded regardless of the dates.
Current (today and earlier)	Selecting this radio button will cause all field orders in the user's assigned dispatch area to be read into memory when the field orders are reloaded that have a schedule from date or due by date equal to or less than today's date.
Future (tomorrow and later)	Selecting this radio button will cause all field orders in the user's assigned dispatch area to be read into memory when the field orders are reloaded that have a schedule from date or due by date greater than today's date.

Field Name	Description
Selected	Selecting this radio button will cause all field orders in the user's assigned dispatch area to be read into memory when the field orders are reloaded whose due by date or schedule from date is greater than or equal to the specified from date or the due by date or schedule from date is less than or equal to the specified to date.
From Date	The date to be used as the low range for selected field orders. Only those field orders whose schedule from date or due by date is equal to or greater than this date will be selected.
To Date	The date to be used as the high range for selected field orders. Only those field orders whose schedule from date or due by date is equal to or less than this date will be selected.
Future Window (today plus N days)	Selecting this radio button will cause all field orders in the user's assigned dispatch area to be read into memory when the field orders are reloaded that have a schedule from date OR due by date are equal to or less than today's date + N days where N is specified in the Days field.
Days	The number of additional days to be considered when reading orders when the Future Window selection.
Scheduled Orders	Checking this box will cause all scheduled orders (based on scheduled from date) that meet the current criteria to be selected. This will not be available if "All Dates" is selected.
Unscheduled Orders (Due On Date)	Checking this box, will cause all unscheduled orders (based on due on date) that meet the current criteria to be selected, it will not be available if "All Dates" is selected.

## Interfaces

Default criteria are saved in the DHTDWINI table (SECTION\_NAME=Field order Dates) and the order download thread is restarted to read the appropriate orders from the database, user saved criteria ("Save Options" can be found under "View" menu) will be saved in the DHTUOPTS table (GUI=Field Order Component, PARAMETER=SELECT\_DATE...USE\_SCHFROM\_FLG... USE\_DUEON\_FLG), the default criteria will be used at the initial order download if there's no user saved criteria.

## Validation

Either the Scheduled Orders or Unscheduled Orders or both MUST be checked when "All Dates" is not selected. At least one is required.

## Data Updates

The default selection is stored in the DHTDWINI database table; user saved selection is stored in the DHTUOPTS database table.

## Non-MDT Crew Logon

### Function/Process Description

This function allows the logged on Dispatch Workstation user to log on a non-MDT crew. This is a crew that will not have a mobile device and will work orders dispatched via radio.

The Dispatch Workstation user selects the id of the crew leader for the non-MDT crew, their base service area, and their primary function. Optionally, the Dispatch Workstation user can assign up to nine support vehicles to the Non-MDT crew by pressing the Support Vehicles button. Refer to **Support Vehicles Screen** on page 15-180 for more information. Once all the data for the non-MDT crew has been entered, the Ok button is pressed and the data will be validated. If an error occurs, an error message will be displayed.

After the Server has logged on the non-MDT crew, the crew will appear in the crew status list with a status of 'Logged On'. The status of the non-MDT crews will change as the Dispatch Workstation user updates the status of the field orders that non-MDT crew is working. Non-MDT crews are logged off using the Force Logoff function in the Crew Status subsystem.

### Data Fields

Data fields are described below:

Field Name	Description
Crew Leader User ID	The Id of the user in the non-MDT crew. This list is populated using the logged off crews from the crew table (DHTCREW).
Base Service Area	The base service area where the crew will be located. This list is populated using the service area validation table (DHTSERV).
Crew Primary Function	The primary function of the crew being logged on. This list is populated using the primary function validation table (DHTPFUNC).

### Interfaces

The non-MDT Crew Logon data entered on this screen is sent to the Server in the non-mobile data terminal crew logon transaction. The Server will validate and process the data. If the crew is successfully logged on, the Server writes a message to the Audit list box and log.

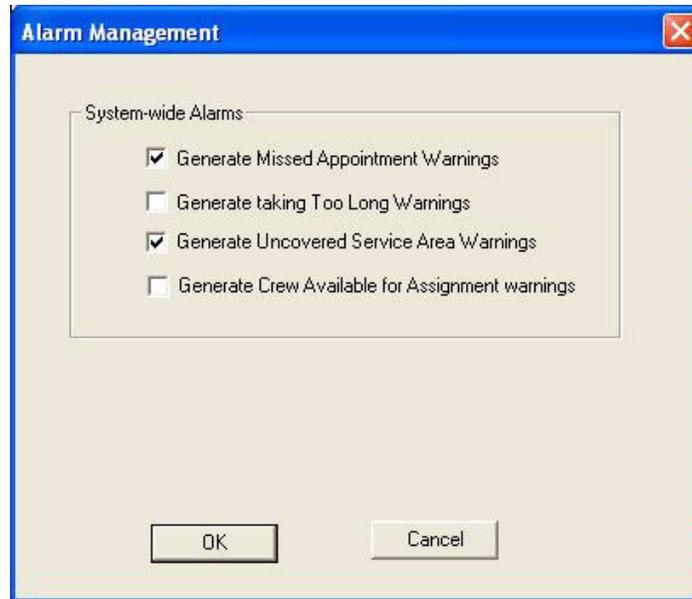
### Validation

The user must enter a Crew Leader ID, base service area, and primary function. The Server validates the Crew Leader ID and ensures the user is not currently logged on.

**Data Updates**

The sign on time will be stored in the Personnel database table (DHTPERS) for the crew leader. A record will be inserted into the Logon table (DHTLOGON) for the crew leader. The crew record for the non-MDT crew in the crew database table (DHTCREW) will be updated. The status on the crew record will be 'N' to indicate a non-MDT crew.

## Alarm Management



### Function/Process Description

This function allows the logged on Dispatch Workstation user to view the current settings for system-wide alarms generated by the Server. These system-wide alarms are sent to the logged on Dispatch Workstation users.

The current settings of the alarms are read from the database and displayed on the screen. If the check box is checked, the alarm is enabled. If the check box is not checked, the alarm is disabled. When the Ok button is pressed, any changes are sent to the Server for processing. The new alarm settings will remain in effect until they are modified, even if the Server application is restarted.

### Data Fields

Data fields are described below:

Field Name	Description
Generate Missed Appointment warnings	Indicates whether 'missed appointment and commitment warnings' are being generated. See <b>Alarms and Notifications</b> on page 14-1.
Generate Taking Too Long warnings	Indicates whether 'taking too long warnings' are being generated. See <b>Alarms and Notifications</b> on page 14-1.
Generate Uncovered Service Area warnings	Indicates whether 'uncovered service area warnings' are being generated. See <b>Alarms and Notifications</b> on page 14-1.
Generate Crew Available for Assignment Warnings	Indicates whether 'crew available for assignment warnings' is being generated. See <b>Alarms and Notifications</b> on page 14-1.

### Interfaces

The current settings of the alarms are read from the database. The Dispatch Workstation application will update the database directly if any settings are modified. If the settings are modified, a modified alarms transaction is sent to the Server for updating its current settings. The Server writes a message to the Audit list box and log indicating the settings have been modified.

**Validation**

None

**Data Updates**

The Dispatch Workstation application will update the Alarms database table with the new settings.

## Change Password

### Function/Process Description

This function allows the logged on user to change their password. The user must re-enter their new password in the Verify field to ensure the new password was entered correctly. If the password change is successful, the user must use their new password the next time they log onto the Dispatch Workstation application.

The old passwords are kept in a password history database table. The user cannot change their password to any password that already exists in the password history table. The number of historical passwords that are kept is specified in the number of passwords to maintain in history (PW\_HIST\_KEPT) record on the miscellaneous database table. This value can be maintained using the Table Maintenance portion of the Oracle Utilities Mobile Workforce Management/ Oracle Real-time Scheduler Admin Tool subsystem.

### Data Fields

Data fields are described below:

Field Name	Description
Current Password	The user's current password.
New Password	The user's desired new password.
Verify New Password	The user's desired new password.

### Interfaces

There is no additional interface. All processing takes place within the Dispatcher Workstation application. If the password change is successful, the dialog is dismissed. If the password change is unsuccessful and the password change was optional, the dialog can be dismissed by pressing the Cancel button. If the password change is mandatory (e.g. password has expired), the password must be successfully changed before the dialog will be dismissed.

### Validation

The user must enter all three fields. The length of the password fields must be between MINPASSWORD\_LEN and MAXPASSWORD\_LEN alphanumeric characters. The value in the Verify New Password field must be the same as the value in the New Password field. The user cannot change the password to any value in the Password History database table.

**Data Updates**

The Dispatcher Workstation application will update the appropriate record in the Personnel database table (DHTPERS) with the new password and the date/time the password was changed. A new record will be inserted into the Password History database table (DHTPWHST) and the oldest record in the table will be deleted.

## Change Operator

### Function/Process Description

This function enables you to change users in the Dispatch Workstation application without having to go through the logoff/logon process. The Server validates the new user information. If any of the information is in error, an error message is displayed and the user should re-enter the data.

The Ok button will validate and send the logon information to the Server, the Cancel button will cancel the change operator function, and the Help button will invoke the online help facility. If the change operator function is cancelled, the current user is still logged on.

The user id/password must be valid and cannot be currently logged on to an Oracle Utilities Mobile Workforce Management application. The new user must have the same access level as the currently logged on user. The Server will generate a change operator reply transaction and send it back to the application. The transaction will contain a return code indicating the success of the change. If the return code indicates the change was unsuccessful, an error message is displayed on the Dispatch Workstation desktop stating the reason for the failure. If the return code indicates the logon successful, a confirmation screen is displayed and the title bar is changed to reflect the name of the new user. The new user will automatically be assigned the same dispatch areas as the current user.

### Data Fields

Data fields are described below:

Field Name	Description
User ID	The new user's id.
Password	The new user's password.

### Interfaces

The Change Operator data entered on this screen is sent to the Server in the Change Operator transaction. The Server will validate and process the data. The Server will generate a Change Operator Reply transaction and send it back to the Dispatch Workstation. If any of the data is invalid, an error code will be returned to the Dispatch Workstation in the Change Operator Reply transaction. The Server writes a message to the Audit list box and log stating that the users at this location have been changed.

### Validation

The user must enter a user ID and password. The user id cannot be the same as the id of the user currently logged on. The Server validates the user ID and password.

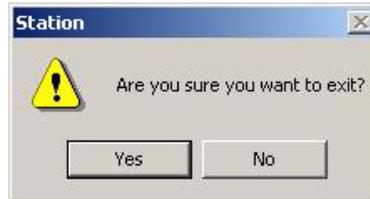
**Data Updates**

The sign on time will be stored in the Personnel database table (DHTPERS) for the new user. A record will be inserted into the Logon table (DHTLOGON) for the new user. A record will be inserted into the Personnel to Dispatch Area relationship database table for each area that is assigned to the current user. The sign off time will be stored in the Personnel database table (DHTPERS) for the current user. A record will be deleted from the Logon table (DHTLOGON) for the current user. The Personnel to Dispatch Area records for the current user are moved to the Last Dispatch Areas Assigned database table.

## Dispatch Workstation Logoff

### Function/Process Description

The Dispatch Workstation user can logoff the Dispatch Workstation application by selecting the Logoff menu item under the Control menu, select Close from the System menu, or click on the window exit (X in the top right hand of the window). The user will be prompted to confirm logoff.



If the user confirms logoff, the application will log the user off. The Application Shutdown Progress screen will be displayed while the application is shutting down. This screen is displayed for 10 seconds.

### Data Fields

None

### Interfaces

The Dispatch Workstation Logoff is sent to the Server. The Server will process the data. There is no validation performed by the Server at logoff.

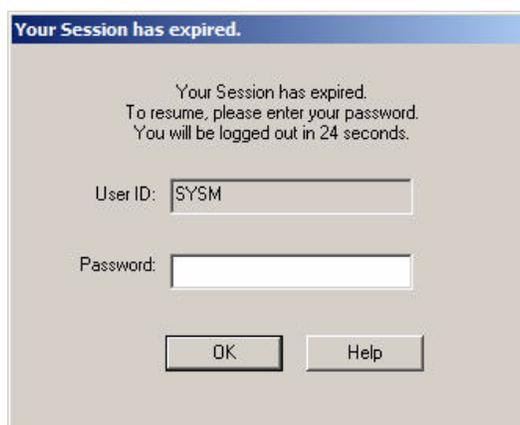
### Validation

None

### Data Updates

The sign off time will be stored in the Personnel database table (DHTPERS) for the user. The record will be deleted from the Logon table (DHTLOGON) for the User. The dispatch areas assigned to this user will be unassigned and moved to the Last Dispatch Area assignment database table (DHTLSTDA). The Last Dispatch Area assignment table is used to populate the previously assigned dispatch areas list box on the Dispatch area assignment screen.

## Session Timeout Interval



### Function/Process Description

The user session expires if the application is idle for a specified amount of time. The application will be locked to the user until the user's password is entered. If the password is not entered within a specified number of seconds the user will be logged out of the server.

### Data Fields

Data fields are described below:

Field Name	Description
User ID	The ID of the user who was logged on when the session expired.
Password	The password of the user.

### Interfaces

The application will be locked until the user enters the correct password. If the password is not entered within a specified amount of time the user is logged out of the server.

### Validation

The user must enter a password to start a new session. The password must be the same password used at logon.

### Data Updates

The sign on time will be stored in the Personnel database table (DHTPERS) for the user. A record will be inserted into the Logon table (DHTLOGON) for the user.



# Chapter 2

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## Field Order Subsystem

The Field Order subsystem is used for monitoring and processing field orders. This chapter contains the following topics:

- **Field Order Subsystem Menus**
- **Field Order List**
- **Field Order Screens Shared by Mobile Workstation**
- **Add Order**
- **Create Assist Order**
- **Cancel Field Order**
- **Edit Order**
- **Reallocate**
- **Select Order**
- **Audit History**
- **Time Edit**
- **Change Field Order Priority**
- **Status Update**
- **Estimated Restoration Time**
- **Best Fit Crew**
- **Update Coordinates**
- **Field Order Include Criteria**

### Field Order Subsystem Menus

#### Actions Menu

The **A**ctions menu contains sub-menu items that are specific to the Field Order subsystem. Many of the sub-menu items require that a field order be selected in the field order list before it can be enabled. The determination of whether a sub-menu item is enabled/disabled is usually based on data in the selected field order and values of the INI parameters in the DHTDWINI database table. The entries in the DHTDWINI table define the requirements for enabling/disabling menu items/buttons (e.g. INI parameters, access level, required data values, etc.). The Actions menu contains the following sub-menu items:

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## **Add...**

This menu item is disabled if the disable add field order (Disable\_Add) parameter is 'Yes'; otherwise this menu item is enabled based on the Menu Item Access parameters. When selected, the Add Order screen is displayed. Refer to **Add Order** on page 2-13.

## **Assist...**

This menu item is disabled if the disable create assist field order (Disable\_Assist) parameter is 'Yes', otherwise this menu item is enabled based on the Menu Item Access parameters. A single field order must be selected for this menu item to be enabled. When selected, the selected order is validated. The selected order cannot itself be an assist order. If the order passes validation, the Create Assist order screen is displayed. Refer to **Create Assist Order** on page 2-16.

## **Browse...**

This menu item is enabled when a field order is selected in the list. Only one field order can be selected for browse. When selected, the appropriate field order screen is displayed based on the value of the initial field order screen to display (InitialFieldOrderScreen) INI parameter. If the parameter is 'C', the Common information screen is displayed, otherwise the value is 'D' and the appropriate primary detail screen is displayed.

## **Cancel Order...**

This menu item is enabled based on the Menu Item Access parameters. One or more field orders must be selected for this menu item to be enabled. When selected, the Cancel Order screen is displayed. Refer to **Cancel Field Order** on page 2-18.

## **Complete...**

This menu item is enabled based on the Menu Item Access parameters. A single field order must be selected for this menu item to be enabled. When selected, the appropriate primary detail screen is displayed. The user can enter the required completion information to complete the order. Refer to **Shared Screens** on page 15-1 for specific validation for each field order screen. Note that this option is disabled if the DW\_COMPLETION\_FLAG is set to False for the associated field order type. (This flag is set using the 'Can DW Complete Order?' checkbox on the Field Order Type screen in the Admin tool).

## **Edit...**

This menu item is disabled if the disable edit field order (Disable\_Edit) parameter is 'Yes', otherwise this menu item is enabled based on the Menu Item Access parameters. A single field order must be selected for this menu item to be enabled. When selected, the Edit Order screen is displayed. Refer to **Edit Order** on page 2-20.

## **Dispatch**

This menu item is enabled based on the Menu Item Access parameters. One or more field orders must be selected for this menu item to be enabled. When selected, the field orders selected in the list are validated to determine if they are eligible to be dispatched. If the Dispatch\_Future parameter is 'No', the order's Early Start Date/Time cannot be greater than today. The order must be assigned, not completed, and not currently trying to dispatch. If the order is an emergency order, the assigned crew must be currently logged on. The order cannot be assigned to a non-MDT crew. When the dispatch function is complete, the orders will be set ready to dispatch.

## **Dispatch All**

This menu item is enabled based on the Menu Item Access parameters. When selected, a message

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box is displayed prompting the user to confirm that they want to dispatch all orders. If the user confirms, all assigned orders are set ready to dispatch.

### **Reallocate...**

This menu item is enabled based on the Menu Item Access parameters. One or more field orders must be selected for this menu item to be enabled. This menu item is disabled for POU's and Breaks. When selected, the Reallocate field order screen is displayed. Refer to **Reallocate** on page 2-23.

### **Select Order...**

This menu item is always enabled. This process can also be invoked by the system-wide hot key combination of **CTRL+O**. When selected, the Select Field order screen is displayed. Refer to **Select Order** on page 2-27.

This menu item is enabled when a single field order is selected in the list. When selected, the Audit History screen is displayed. Refer to **Audit History** on page 2-29.

### **Time Edit**

This menu item is enabled based on the Menu Item Access parameters. A single field order must be selected for this menu item to be enabled. When selected, the Time Edit screen is displayed. Refer to **Time Edit** on page 2-31.

### **Find on Map**

This menu item is enabled when the Mapping subsystem is running. One or more field orders must be selected for this menu item to be enabled. When selected, the mapping subsystem is manipulated such that the field order(s) will appear in the center of the map. If the field order is not currently displayed on the map, a message box is displayed stating that the order does not have a valid location.

### **Suppress Order**

This menu item is enabled based on the Menu Item Access parameters. One or more field orders must be selected for this menu item to be enabled. When selected, the status of the selected orders will be changed to Suppressed. After the status has been changed to Suppressed, the orders will not be displayed in the list. Suppressed orders are never displayed in the field order list unless they are selected using the Include Criteria function.

### **Change Priority...**

This menu item is enabled based on the Menu Item Access parameters. A single field order must be selected for this menu item to be enabled. When selected, the Change Priority screen is displayed. Refer to **Change Field Order Priority** on page 2-33.

### **Status Update...**

This menu item is enabled based on the Menu Item Access parameters. A single field order must be selected for this menu item to be enabled. Additionally, the selected field order assigned to a non-MDT crew. When selected, the Status Update screen is displayed. Refer to **Status Update** on page 2-34.

### **Print Order**

This menu item is disabled if the logged on user does not have the 'PRT' job code; otherwise the menu item is enabled based on the Menu Item Access parameters. This menu item is enabled

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when a one or more unassigned field orders are selected and the Field Order Type table indicates the order type is printable. Only those field order types that can be printed will be processed. A message will be displayed stating which orders were in error and which orders were successfully printed. When an order is printed, the order is printed on the machine's default printer and the status of the order is changed to Complete/Printed.

### Update ERT...

This menu item is enabled based on the Menu Item Access parameters. A single field order must be selected for this menu item to be enabled. When selected, the Estimated Restoration Time screen is displayed. Refer to **Estimated Restoration Time** on page 2-36.

Best Fit Crew

This menu item is enabled based on the Menu Item Access parameters. When selected, the Best Fit Crew screen is displayed. Refer to **Best Fit Crew** on page 2-37.

### Unrelated Damage Assessment

This menu item is enabled based on the Menu Item Access parameters. When selected, the Unrelated Damage Assessment screen is displayed. Refer to **Unrelated Damage Assessment Screen** on page 15-187.

### Update Coordinates...

This menu item is enabled based on the Menu Item Access parameters. A single field order must be highlighted before the menu item can be enabled. When selected, the Update Coordinates screen is displayed. Refer to **Update Coordinates** on page 2-39.

## View Menu

The **View** menu contains sub-menu items that are specific to the Field Order subsystem. The View sub-menu items are always enabled when the Field Order subsystem has focus. The View menu contains the following sub-menu items:

### Predefined Views

This menu item contains a sub-menu of available predefined views. The sub-menu items are **All Orders**, **Pending Orders**, **Selected Orders**, **Completed Orders**, **Emergency Orders**, **Non-Emergency Orders**, **Open Orders**, **Completed with Exception Orders**, and **Selected Orders from Map**. Selecting a predefined view will automatically display the appropriate field orders in the field order list.

**Note:** The Selected Orders from Map pre-defined view displays field orders that were selected using the Lasso Fos and Crews option on the Mapping subsystem toolbar.

The pre-defined views can also be invoked by using the system-wide hot key combinations: **CTRL+A** (all orders), **CTRL+E** (emergency orders), **CTRL+N** (non-emergency orders), **CTRL+P** (pending orders), **CTRL+S** (selected orders), **CTRL+U** (open orders), **CTRL+W** (completed orders), **CTRL+X** (completed w/ exception orders), and **CTRL+T** (selected orders from the Mapping subsystem).

### Refresh

This menu item is always enabled. Selecting this menu item will cause the field order list to be refreshed. The user can also refresh the field order list by pressing the F5 key or clicking on the FO Update indicator in the bottom right-hand corner of the status bar. The FO Update indicator will change color to blue when an update has been made and a refresh needs to be performed

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## Copy

This menu item is enabled when one or more field orders are highlighted in the list. When selected, the selected field order data is copied into the clipboard for use in another application (e.g. Microsoft Excel).

## Include Criteria...

This menu item is used to specify criterion that is used to limit the field order displayed in the list. When selected, the Field Order Include Criteria screen is displayed. Refer to **Field Order Include Criteria** on page 2-41.

## Set Display Columns...

This menu item is used to change the columns that are displayed in the field order list. The user has the option to change the field order columns that are displayed and the order in which they are displayed. When selected, the Set Display Columns screen is displayed. The field order columns as specified in the DHTDWINI table (SECTION\_NAME = Field Order Column Headers) are used to populate the Set Display Columns screen. Refer to **Set Display Columns Screen** on page 15-183 for a further description of this function.

## Set Sort Columns...

This menu item is enabled based on the Menu Item Access parameters. This menu item is used to change the columns that are used to sort the field order list. The user has the option to change the field order columns that are used in the sort and whether the field is sorted ascending or descending. When selected, the Set Sort Columns screen is displayed. The field order columns as specified in the DHTDWINI table (SECTION\_NAME = Field Order Column Headers) are used to populate the Set Sort Columns screen. Refer to **Set Sort Columns Screen** on page 15-185 for more information.

## Font

This menu item contains a sub-menu of available font settings. The sub-menu items are **S**mall Font, **M**edium Font, and **L**arge Font. A checkmark will appear next to the current font selection. Clicking on another font selection will automatically redisplay the data in the field order list using the selected font.

## Save Options

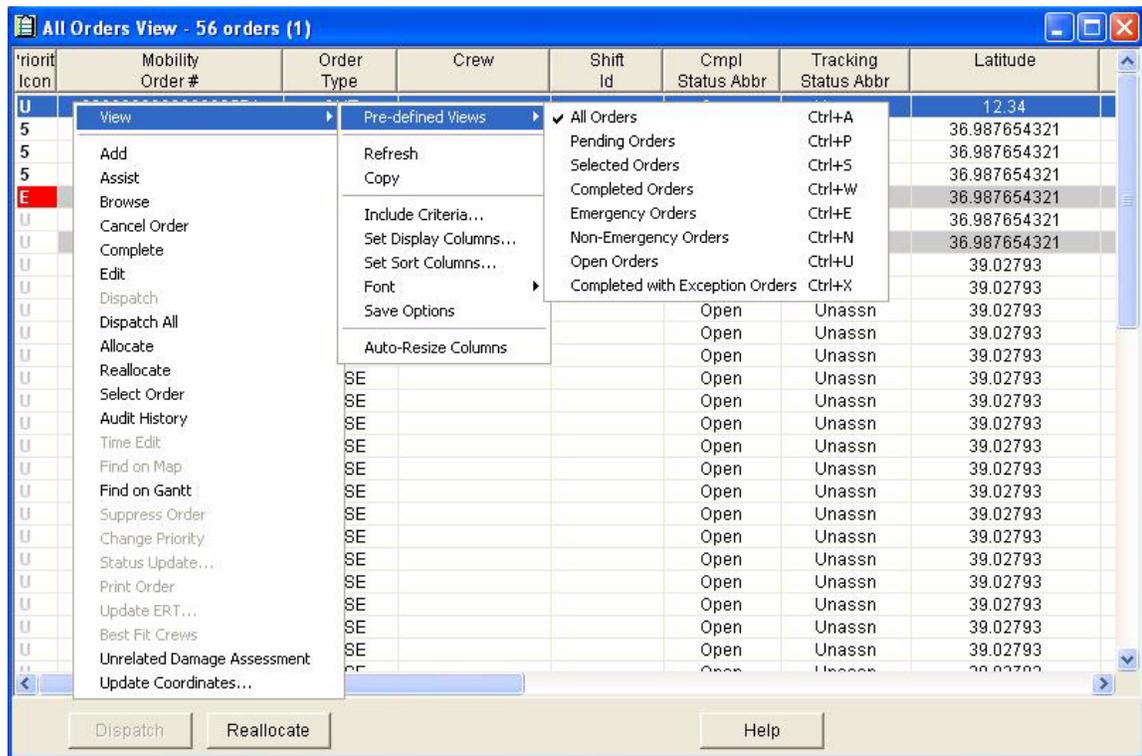
This menu item is used to save all the currently selected field order subsystem user options to the database. The Field Order subsystem options selected (e.g. display columns, width, sequence, sort columns, and font) are stored in the database and on the hard drive by the logged on user's id.

## Auto-Resize Columns

This menu item will resize the width of the displayed field order list columns so that all the data in the column is visible. The data in the column or the column heading determines the width of the column, which is wider. The column heading will always be put on one line when this function is used. This menu item is useful after the font has been changed.

## Field Order List

The main element of the Field Order subsystem is the Field Order List. The Field Order List is automatically displayed when the field order subsystem is started.



### Function/Process Description

The Field Order list provides a tabular display of Field Orders. The Field Order list is capable of displaying all Field Orders in the dispatch areas being monitored by the Dispatch Workstation User. The number of field orders currently displayed and the name of the current predefined view are displayed in the title bar of the field order list.

The Field Order list screen design is shared by the Dispatch Workstation and Mobile Workstation applications. The Dispatch Workstation and Mobile Workstation have the same list of displayable columns. The same columns are available regardless of field order type.

The Priority Icon column can be used to display a single color-coded character to represent the priority code of the order. The Table Maintenance portion of the Oracle Utilities Mobile Workforce Management/Oracle Real-time Scheduler Admin Tool is used to change the character and color combination (text color and background color) in the Priority Codes table (DHTPRTY).

Field Orders are color-coded to indicate status. See **Color Coding** on page 3-2.

#### Setting Display Columns

The user has the option to change the field order columns that are displayed and the order in which they are displayed by selecting the 'Set Display Columns' menu item under the View menu. The user can also move the position of a column by clicking on the column header and dragging the column to the desired position.

#### Setting Sort Columns

The user has the option to change the field order columns that are used to sort the field orders in

the list by selecting the 'Set Sort Columns' menu item under the View menu item. A column must be displayed in the list before it can be used to sort.

The user has the ability to perform a quick sort by selecting one of the column headings. This quick sort will sort all visible columns based on the column heading selected. Only one sort can be executed at a time.

### Changing Column Widths

The user has the option of changing the width of the field order columns. Using the mouse, position the cursor so that it is on the line following the column header that is to be adjusted. The cursor will change to a double arrow. Click the left button and drag the line until the column is the desired width.

### Changing Font Size

The user has the option to change the size of the font used to display the Field Order text (e.g. Large, Medium, and Small) by selecting the 'Font' menu item under the View menu item.

### Pop-Up Menus

Using the right mouse button while in the list will display the pop-up menu. The pop-up menu contains the same menu items as the Actions menu and the View menu. Some of these menu items may be disabled based on the number of field orders selected and/or the status of the selected field order. Refer to **Field Order Subsystem Menus** on page 2-1 for a description of the menu items.

### Drag and Drop

The Field Order list supports 'Drag and Drop'. The user can select one or more orders in the field order list and drag the orders to the desired crew in the crew status list. When the orders are dropped on the crew, the orders will be validated to ensure they can be reallocated/dispatched. All orders that pass validation are reallocated to the crew and set ready to dispatch. The users can un-select selected orders in the list by holding down the CTRL key and clicking on the desired order.

### Viewing Field Order Details

The user can display a field order by double clicking on the selected order in the list. The field order will be displayed on the appropriate field order screen based on the value of the initial field order screen to display (InitialFieldOrderScreen) parameter. If the parameter is 'C', the Common information screen is displayed; otherwise, the value is 'D' and the appropriate primary detail screen is displayed. The field order will be displayed in browse mode.

### Field Order List Buttons

The Field Order list displays the following buttons at the bottom of the screen.

Buttons	Description
Dispatch	This button is enabled based on the Menu Item Access parameters. One or more field orders must be selected for this button to be enabled. When selected, the field orders selected in the list are validated to determine if they are eligible to be dispatched. If the Dispatch_Future parameter is 'No', the order's Early Start Date/Time cannot be greater than today. The order must be allocated, not completed, and not currently trying to dispatch. If the order is an emergency order, the allocated crew must be currently logged on. The order cannot be allocated to a non-MDT crew. When the dispatch function is complete, the orders will be set ready to dispatch.

Buttons	Description
Reallocate	This button is enabled based on the Menu Item Access parameters. One or more field orders must be selected for this button to be enabled. This button is disabled for POU's and Breaks. When selected, the Reallocate field order screen is displayed. Refer to the <b>Reallocate</b> on page 2-23.
Help	This button is enabled at all times. When pressed, the online help facility is invoked

## Data Fields

Data fields are described below:

Col#	Header	Mapped Data	Type
0	Mobility Order #	FO_NUMBER	
1	Common Order Id	CIS_NUMBER	Numeric
2	Order Type	FO_TYPE	
3	Tracking Status Abbr	'T-[FO History1]FO_TRACK_STATUS@DHTFSTAT:TBL::STATUS_ABBR	
4	Tracking Status Code	[FO History1]FO_TRACK_STATUS	
5	Cmpl Status Abbr	'C-[FO History1]FO_CMPL_STATUS@DHTFSTAT:TBL::STATUS_ABBR	
6	Cmpl Status Code	[FO History1]FO_CMPL_STATUS	
7	Priority Code	PRIORITY	
8	Priority Icon	PRIORITY@DHTPRTY:TBL::PRIORITY_ICON	
9	Unused(Info Code)	INFO_CODE	
10	CIS Calltaker	TAKEN_BY	
11	CIS Taken Date	TAKEN_DTTM=DATETIME(%m/%d/%Y)	
12	CIS Taken Time	TAKEN_DTTM=DATETIME(%H:%M)	
13	Mobility Receive Date	[FO History1]RECEIVE_DTTM=DATETIME(%m/%d/%Y)	
14	Mobility Receive Time	[FO History1]RECEIVE_DTTM=DATETIME(%H:%M)	
15	Due On Date	[FO History1]DUE_ON_DTTM=DATETIME(%m/%d/%Y)	
16	Due On Time	[FO History1]DUE_ON_DTTM=DATETIME(%H:%M)	
17	Early Start Date	[FO History1]EARLY_START_DTTM=DATETIME(%m/%d/%Y)	
18	Early Start Time	[FO History1]EARLY_START_DTTM=DATETIME(%H:%M)	
19	Unused1(Gas Source)	GAS_SOURCE_CODE	
20	Unused2(Electric Source)	ELEC_SOURCE_CODE	
21	Crew	[FO History1]CREW	

Col#	Header	Mapped Data	Type
22	Account #	ACCOUNT_NUMBER	Numeric
23	Premise ID	PREMISE_NO	
24	Customer Name	CUSTOMER_NAME	
25	Customer Phone	SERVICE_PHONE	
26	Alternate Phone	CONTACT_PHONE	
27	Service Address	DISPLAY_ADDR_1	
28	Unused(Town Code)	TOWN_CODE@DHT*TOWN.TBL::TOWN_NAME	
29	Unused(Zip Code)	ZIP_CODE	
30	Division	DIVISION	
31	District	DISTRICT	
32	Service Area	SERVICE_AREA	
33	Sched. Area	SCHEDULING_AREA	
34	Unused(Map Grid Coordinate)	GRID_NUMBER	
35	Sortable Address	SPARE_1	
36	Key #	SPARE_2	
37	Key At	SPARE_3	
38	Account Type	SPARE_4	
39	Commit Guar.	SPARE_5	
40	Order Description	SPARE_6	
41	Route Seq	SPARE_7	
42	Transmit Status	SPARE_8	
43	Completion Remarks	[FO History1]COMPL_REMARKS_1+ [FO History1]COMPL_REMARKS_2	
44	Appt Start Date	[FO History1]APPT_START_DTTM=DATETIME(%m/%d/%Y)	
45	Appt Start Time	[FO History1]APPT_START_DTTM=DATETIME(%H:%M)	
46	Appt Finish Date	[FO History1]APPT_FINISH_DTTM=DATETIME(%m/%d/%Y)	
47	Appt Finish Time	[FO History1]APPT_FINISH_DTTM=DATETIME(%H:%M)	
48	Unused (DspEmerAckTime)	[FO History1]DSP_EMER_ACK_DTTM(%m/%d/%Y %H:%M:%S)	
49	Assigned Time	[FO History1]ASSIGNED_DTTM(%m/%d/%Y %H:%M:%S)	
50	Dispatched Time	[FO History1]DISPATCH_DTTM(%m/%d/%Y %H:%M:%S)	
51	Dispatcher	[FO History1]DISPATCHER	
52	Est Restore Time	[FO History1]EST_RESTORE_DTTM(%m/%d/%Y %H:%M:%S)	

Col#	Header	Mapped Data	Type
53	Mobile Emergency Ack Time	[FO History1]MBL_EMER_ACK_DTTM(%m/%d/%Y %H:%M:%S)	
54	Enroute Time	[FO History1]ENROUTE_DTTM(%m/%d/%Y %H:%M:%S)	
55	Onsite Time	[FO History1]ONSITE_DTTM(%m/%d/%Y %H:%M:%S)	
56	Completion Time	[FO History1]COMPLETION_DTTM(%m/%d/%Y %H:%M:%S)	
57	Completed By	[FO History1]COMPLETED_BY	
58	Reason Code	[FO History1]REASON_CODE	
59	City	SPARE_9	
60	Appt Guar.	SPARE_10	
61	Order Remarks	SPARE_11	
62	Meter Form	SPARE_12	
63	CUT Priority	SPARE_13	
64	MERC	SPARE_14	
65	Spare15 (Unused)	SPARE_15	
66	Special Handling Code	SPECHANDLING_CODE@DHTSPHDL.TBL::SPECHANDLING_DESC	
67	Schedule From Time	[FO History1]SCHED_FROM_DTTM=DATETIME(%m/%d/%Y %H:%M:%S)	
68	Schedule From Date	[FO History1]SCHED_FROM_DTTM=DATETIME(%m/%d/%Y)	
69	Schedule End Time	[FO History1]SCHED_END_DTTM=DATETIME(%H:%M:%S)	
70	Schedule End Date	[FO History1]SCHED_END_DTTM=DATETIME(%m/%d/%Y)	
71	External Priority	EXTERNAL_PRIORITY	
72	Allocated Time	[FO History1]ALLOCATED_DTTM(%m/%d/%Y %H:%M:%S)	
73	Shift Id	[FO History1]SHIFT_ID	
74	Work Order Number	DHTFOWAM_WORKTASK.WORK_ORDER_NO	

## Interfaces

The field orders are retrieved directly from the database and the field order list data is stored internally in the Dispatch Workstation application. When the field order list is displayed, the appropriate records and columns are shown.

When orders are set ready to dispatch, the Dispatch Workstation application generates FoStatus ICDs to send to the Server for notifying the other Dispatch Workstation users of the status change. Finally, the application will send a Dispatch Orders ICD to the Server to indicate the allocated crew has orders that are ready to dispatch.

## Validation

When orders are selected for dispatch, the current status of the order cannot be unassigned,

completed, or trying to dispatch. All other status codes are valid for dispatch.

## Data Updates

All the data in this list is read-only, so no data is updated. However, when orders are set ready to dispatch, the Dispatch Workstation application will update the tracking status for the field orders directly on the database.

## Field Order Screens Shared by Mobile Workstation

Oracle Utilities Mobile Workforce Management uses a set of field order screens for displaying and working field orders. The Dispatch version of the Station application and the Mobile version of the Station application share the same Field Order Screens. Refer to **Shared Screens** on page 15-1 for the functional description of each of the shared field order screens.

The following is a list of the Field Order Screens shared between the Dispatch and Mobile versions of the Station application.

### Information Screens:

- Common Information Screen (option 1 & 2)
- Common Order Header Pop-up Information Screen
- Gas Checks Monitor Information Screen
- Meter Information Screen (option 1 & 2)
- POU/Break Primary Detail
- Usage History Information Screen
- WAM Task Notes Information Screen
- WAM Planned Material Information Screen

### Primary Detail Screens:

- Collections Primary Detail Screen
- Electric Trouble Primary Detail Screen
- Gas Emergency Primary Detail Screen
- Ground Level Inspection Primary Detail Screen
- Meter Miscellaneous Primary Detail Screen
- Meter Read Primary Detail Screen
- Meter Set/Change/Remove Primary Detail Screen (option 1 & 2)
- Meter Test Primary Detail Screen
- POU/BREAK Primary Detail Screen
- Underground Locate Primary Detail Screen
- Water Heater Repair Primary Detail Screen
- WAM Primary Detail Screen

### Secondary Detail Screens:

- AMR Secondary Completion Screen
- Common Information Modify Secondary Completion Screen

- Customer Charge Secondary Completion Screen
- Damage Assessment Secondary Completion Screen
- Electric Tags Secondary Completion Screen
- Equipment Secondary Completion Screen
- Event Update Secondary Completion Screen
- Failed Equipment Completion Screen
- Gas Checks Secondary Completion Screen
- Gas Emergency Secondary Completion Screen
- Gas Tags Secondary Completion Screen
- Meter Information Modify Secondary Completion Screen
- Partial Restoration Steps Secondary Completion Screen
- Parts Secondary Completion Screen
- Regulator Inspection Secondary Completion Screen
- Restoration Secondary Completion Screen
- WAM Direct Charges Secondary Completion Screen
- WAM Stock Charges Secondary Completion Screen

Support Screens:

- Pickup Field Order Screen
- Unrelated Damage Assessment Screen
- WAM Find Stock Code Support Screen
- WAM Find Vendor Code Support Screen

## Add Order

The screenshot shows a 'Field Order Screen' window with the following fields and values:

- Name: [ ]
- Addr: [ ]
- City: [ ]
- Order Type: [ ]
- Priority: [ ]
- District: [ ]
- Service Area: [ ]
- Meter Number: [ ]
- Pole: [ ]
- Meter Number 2: [ ]
- Service Phone: [ ]
- Contact Phone: [ ]
- CSS Taken Date: 04/24/2006
- CSS Taken Time: 14:21
- Date Wanted: 04/24/2006
- Appointment Time: [ ]
- Dispatch Date: [ ]
- Dispatch Time: [ ]
- Gas Emergency Info:
  - Type/Condition: [ ]
  - Location: [ ]
  - Odor: [ ]
  - Odor Duration: [ ]
  - Appliance: [ ]
  - Pilot: [ ]
- Completion Status: 0
- Tracking Status: U
- Taken By: 58667
- Order Remarks: [ ]

## Function/Process Description

This function allows a Dispatch Workstation user to create a field order. This function is accessed via the Add menu item in the Field Order subsystem. Setting the 'Available for Create' flag in the field order type table controls whether or not an order of a particular type can be added. The Add order screen is a user-defined screen and is always named DwAddOrder.def.

The added orders will be assigned the next sequential order number from the miscellaneous database table. The next order number in the miscellaneous table will be incremented by 1.

## Data Fields

Data fields are described below:

Field Name	Description
Name	Customer's name.
Addr	Customer' street address.
City	Customer's city.
Order Type	Type of order to be created. This field contains a list of order types that can be created. The list is populated from the field order type validation table (DHTFOTYP) where the AVAIL_FOR_CREATE flag is 'Y'.
District	District where the customer resides. This list is populated using the district validation table (DHTDIST).
Service Area	Service area where the customer resides. This list is populated using the service area validation table (DHTSERV).

Field Name	Description
Meter Number	Customer's meter number.
Pole	Pole number associated with customer's meter
Meter Number 2	Customer's second meter number.
Service Phone	Customer's service phone number.
Contact Phone	Customer's contact phone number.
Completion Status	The completion status of the order being created.
CIS Taken Date	The date the order was taken. The field is set to the current date, but can be modified.
CIS Taken Time	The time the order was taken. The field is set to the current time, but can be modified.
Tracking Status	The tracking of the order being created.
Date Wanted	This is the date the customer wants the order worked. This field will initially default to the current date, but can be modified
Appointment Time	The Appointment time for this order. This will be the earliest time the customer wants to order worked and the latest time the customer wants the order worked. This field contains a list of available appointment times. This list is populated from the appointment time validation table (DHTAPTCD).
Dispatch Date	The date the order was dispatched. This field is optional. However, if the Dispatch Time is entered the dispatch date must also be entered.
Dispatch Time	The time the order was dispatched. This field is optional. However, if Dispatch Date is entered the dispatch time must also be entered.
Taken By	The id of the user that created the order. This field is always read-only.
Order Remarks	Remarks associated with the order.
Gas Emergency Info	
Type/Condition	Type of gas leak. This field contains a list of available leak types. The list is populated from the leak type validation table (DHTLKTYTYP).
Location	Location of gas leak. This field contains a list of available leak locations. The list is populated from the leak location validation table (DHTLKLOC).
Odor	Type of odor related to the gas leak. This field contains a list of available odor types. The list is populated from the leak odor validation table (DHTLKODR).
Odor Duration	Duration of odor. This field contains a list of available odor durations. The list is populated from the leak duration validation table (DHTLKDUR).
Appliance	Appliance that is leaking. This field contains a list of available appliances. The list is populated from the appliance name validation table (DHTAPPNM).

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Field Name	Description
Pilot	Status of pilot. This field contains a list of available pilot status codes. The list is populated from the pilot validation table (DHTPILOT).

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## Interfaces

When an order is added, the Dispatch Workstation application sends the new order data to the Server so it can be inserted into the database. The Server will assign a new number to the order and return the order number to the user that generated the order. The new order data is sent to the appropriate Dispatch Workstation users and the Router application. The Server writes a message to the audit list box and log stating that a new order has been added from the Dispatch Workstation.

## Validation

The data is validated locally. There is no validation done for this order by Host System.

- Name, address, city, order type, district, service area, date wanted, and order remarks are required.
- Service phone or contact phone is required.
- If the order type indicates a meter order, the meter number field is required.
- If the order type is 'GE\*', the Gas Emergency Info fields are required.
- The date wanted cannot be a date in the past. It must be today's date or a future date.

## Data Updates

Added orders are inserted into the field order database tables by the Server application.

The next order number in the miscellaneous database table will be incremented by 1 after it has been used in the new order number.

## Create Assist Order

### Function/Process Description

The Create Assist order function is used to create a duplicate of an order with the exception of the order number and possibly, allocated crew, order type, and order remarks. This function is accessed via the Assist menu item in the Field Order subsystem. A new order type can be specified if the AllowNewOrderTypeOnAssists DHTDWINI parameter is 'Y'; otherwise the New Order Type combo box is disabled and the assist order will have the same order type as the original order. The new assist order is a completely separate order from the original. The new assist order number will be the same as the original order number with a character suffix of 'A' plus a sequence ('0' - '9', 'A' - 'Z'). This allows for thirty-six assist orders per parent order. The assist order and the original order have the same parent order number to tie them together. The assist order can be dispatched to a crew and worked like any other order. Assist orders can only be created for order types that have an 'Available to Assist' flag of 'Y' in the field order type table.

### Data Fields

Data fields are described below:

Field Name	Description
Original Order Number	The number of the order (parent order) being used to create the new assist order. This field cannot be modified.
Completion Status	The completion status code for the original order.
Assist Order Number	The order number assigned to the new assist order.
Tracking Status	The tracking status code for the original order.
Early Start Date	The early start date for the original order.
Dispatch Status	The dispatch status code for the original order.

Field Name	Description
Same Day Order	The same day order indicator for the original order.
Dispatcher	The id of the dispatcher for the original order.
New Order Remarks	Order remarks associated with the new assist order.
New Order Type	Order type associated with the new assist order. This field contains a list of order types that can be created (DHTFOTYP.AVAIL_FOR_CREATE = 'Y'). If the AllowNewOrderTypeOnAssists DHTDWINI parameter is 'N', this field is disabled.
Allocate assist order to new crew	Indicates whether or not the assist order should be allocated to a new crew. The default is unchecked. If checked, the New Crew ID and Shift ID are required.
New Crew ID	Crew to be allocated to the new assist order. This field contains a list of all crews. If the disable reassign and rescheduled function when the Oracle Utilities Mobile Workforce Management scheduler is used (DisableReassignRescheduleWithScheduler) parameter is TRUE, this field is disabled. The new crew must be assigned/allocated through the Oracle Utilities Mobile Workforce Management scheduling module.
Shift ID	Shift to be allocated to the new assist order. This field contains a list of valid shifts.

## Interfaces

When an assist order is created, the Dispatch Workstation application inserts the new order into the database directly. The assist order data is sent to the Server for routing to the other Dispatch Workstation users and the Router application. The Server writes a message to the audit list box and log stating that a new order has been added from the Dispatch Workstation.

## Validation

None

## Data Updates

New assist orders are inserted into the field order database tables directly by the application.

## Cancel Field Order

### Function/Process Description

This function enables a Dispatch Workstation user to cancel one or more field orders. This function is accessed via the Cancel Order menu item in the Field Order subsystem or the Cancel Order button on the Common Information screen. If more than one order is being cancelled, they will all contain the same amend code, reason, and status code. Effectively, the order(s) are completed. If they are cancelled on Oracle Utilities Mobile Workforce Management ONLY, the status of the order is Complete/Cancel; otherwise the status of the order is Complete/Void.

### Data Fields

Data fields are described below:

Field Name	Description
Amend Code	Indicates why the order is being cancelled. The field contains a list of available amend codes. This list is populated from the reason validation table (DHTREASN) where the type code is 'V'.
Reason	Additional comments pertaining to the reason the order is being cancelled.
Cancel on MWM ONLY!	Checking this box indicates the order is to be cancelled on Oracle Utilities Mobile Workforce Management only. A status of Cancel is sent to the mainframe if the order is cancelled on Oracle Utilities Mobile Workforce Management only, otherwise a status of Void is sent to the mainframe.

### Interfaces

When an order is cancelled, the Dispatch Workstation application sends the cancel order data to the Server in an Order Complete ICD so the order can be updated in the database. The cancelled order data is sent to the other Dispatch Workstation users and the Router application. The Server writes a message to the audit list box and log stating that an order has been completed from the Dispatch Workstation.

## Validation

The user must enter an Amend Code to cancel an order.

## Data Updates

The Server application will update the database tables with the cancellation information. The status code of the order is set based on whether the Cancel on Oracle Utilities Mobile Workforce Management ONLY checkbox is checked. If the check box is checked the status is Cancel; otherwise the status is Void.

## Edit Order

### Function/Process Description

This function allows a Dispatch Workstation user to edit the order remarks on a field order. This function is accessed via the Edit menu item in the Field Order subsystem. The Edit order screen is a user-defined screen and is always named EditOrder.def.

### Data Fields

Data fields are described below:

Field Name	Description
Name	Customer's name.
Order Type	Type of order created
Primary Phone	Customer's service phone number.
Addr	Customer' street address.
Requested By Phone	Customer's contact phone number.
City	Customer's city.
Appt	The appointment time block associated with the order. Not all orders have appointments. If no appointment exists for the order, this field will be blank.
Life Support	Indicates customer is on life support

<b>Field Name</b>	<b>Description</b>
Bill Account	
Account	The customer's billing account number.
Primary Circuit	The primary circuit ID of service.
District	District where the customer resides. This field is read-only when editing an order. This list is populated using the district validation table (DHTDIST).
Zone	Service area where the customer resides. This field is read-only when editing an order. This list is populated using the service area validation table (DHTSERV).
House	The customer's house description (from premise description table DHTPREMD).
Key#	The access key number.
Key At	The location of the access key: first line of customer's address.
Premise Entr	Entrance instructions for the customer's premise (from premise description table DHTPEINT).
Order Information	
Order #	The order number assigned by the external application.
CAD #	The order number assigned by the Oracle Utilities Mobile Workforce Management application.
Priority	The priority of the order
Crew	The id of the crew assigned to work the order
Taken Date/Time	The date/time the order was taken.
Host System Taken Time	The time the order was taken. The field is set to the current time, but can be modified.
Taken By	The id of the user that created the order.
Request Date	This is the early start date/time.
Order Remarks	Remarks associated with the order.
Miscellaneous Account Information	
Prev Cust	The service's previous customer information.
Pole	Pole number associated with customer's meter
Next Read	The next service read date.

## Interfaces

When an order is edited, the Dispatch Workstation application sends the updated order data to the Server so it can be updated in the database. The updated order data is sent to the appropriate Dispatch Workstation users and the Router application. The Server writes a message to the audit list box and log stating that an order has been updated from the Dispatch Workstation.

## **Validation**

The data is validated locally. There is no validation done for this order by Host System.

## **Data Updates**

Updated orders are updated in the field order database tables by the Server application.

# Reallocate

The Reallocate screen varies depending on your configuration, as described in the sections that follow.

## Function/Process Description

This function enables a Dispatch Workstation user to reallocate and reschedule one or more field orders. This function is accessed via the Reallocate menu item in the Field Order subsystem, the Reallocate button on the field order list, or the Reallocate button on the Common Information screen. This function is disabled for POU's and Breaks.

### Oracle Real-Time Scheduler

If Oracle Real-Time Scheduler is being used and the RTS flag is set to yes, then the user must select a valid shift for this crew to allocate the order to, as shown in the following figure:

You can allocate order(s) to a crew in the dispatch areas they are monitoring or to a crew that is not in the dispatch areas that they are monitoring. Highlight the desired radio button on the screen to enable the corresponding list box. After selecting a crew, you can reallocate the order(s) by pressing the Reallocate button. You can elect to also dispatch the reallocated orders by pressing the Reallocate/Dispatch button.

**Note:** If one or more of the orders being reallocated is dependent on another order (e.g., part of a multi-task job), the dependency data for the reallocated order(s) will be removed. The user will be prompted to confirm that this is the correct action. If the user selects “Yes”, the dependency data for all reallocated dependent orders will be cleared. If the user selects “No”, the reallocation process is aborted.

The allocation is validated with Oracle Real-time Scheduler and a dialog is displayed showing the validation in progress. If the validation is successful, the allocation request is sent to Oracle Real-time Scheduler and no further user interaction is needed. If not successful, a validation-failed dialog is displayed. Click “OK” to cancel the allocation request or “Override” to force the allocation to take place despite possible rules violations in allocating this order to this crew.

**Note:** The ExcludeAttribCheckErrorOverride setting in DHTDWINI specifies which attribute check errors cannot be overridden. By default, the Override action is prohibited in the following situations:

- No such shift: If validation fails because Oracle Real-Time Scheduler was not able to find a shift for the crew to which the order is being reallocated, then the reallocation is not allowed and the Override button is disabled.
- No such job: If validation fails because the order does not exist in Oracle Real-Time Scheduler, then the reallocation is not allowed and the Override button is disabled

If you reallocate an order to the current day/shift, the order will not be dispatched immediately, even if it is eligible for auto-dispatch. (An order cannot be auto-dispatched until its Scheduled times have been received from Oracle Real-time Scheduler.) However, if an eligible order is reallocated to a future day/shift, it will be auto-dispatched on the scheduled date.

If the order being reallocated has already been dispatched to a mobile, the order must be recalled from the mobile. A notification transaction is sent to the old mobile stating the order has been recalled.

**Note:** If you attempt to unassign an order that is already in the process of being scheduled, it is possible that the order may be allocated and dispatched before the unassign transaction can be processed. For example, this situation could occur if a user manually reallocates an order and then immediately unassigns the order. This situation should occur rarely, if at all, and can easily be resolved by repeating the unassign request. However, Oracle recommends that you allow the Scheduler to handle all scheduling functions unless the Scheduler is down and the user must manually reallocate orders.

### Non-Oracle Real-Time Scheduler

If the UseScheduler parameter is 'Yes' and UseRTS is set to 'No', the following screen is displayed when the user selects the Reallocate option:

Use this screen to enter the new schedule window and for the order.

## Data Fields

### Reallocate Field Order Screen

Field Name	Description
Crew ID in Dispatch Area	This radio button indicates the user wants to reallocate the orders to a crew in the dispatch areas that they are monitoring. When this button is selected, the corresponding list box is populated and enabled. The list box is populated with all crews the user's dispatch areas. If the order being reallocated is an emergency order, the list box will only contain the crews that are currently logged on.
Crew ID NOT in Dispatch Area	This radio button indicates the user wants to reallocate the orders to a crew that is not in the dispatch areas that they are monitoring. When this button is selected, the corresponding list box is populated and enabled. The list box is populated with all crews that are not in the user's dispatch areas. If the order being reallocated is an emergency order, the list box will only contain the crews that are currently logged on.
New scheduled Start date/time	The new schedule from date time for the order. This is the date/time the technician should arrive at the customer's site to work the order. This field defaults to the current date/time. These fields are only visible if the UseScheduler parameter is 'Yes' and UseRTS is set to 'No'.
New scheduled Finish date/time	The new schedule to date time for the order. This is the date/time the technician should complete work on the order. This field defaults to the current date/time. These fields are only visible if the UseScheduler parameter is 'Yes' and UseRTS is set to 'No'.
Crew's shift to schedule order to	The shift to allocate this order to. This field is visible if the UseRTS flag is set to "Yes."

## Interfaces

The Dispatch Workstation application generates a FoStatus transaction for each order that is being reallocated and sends it to the Server for processing. The allocated crew for each selected order is updated on the database directly by the Dispatch Workstation application. The FoStatus transaction is sent to the appropriate Dispatch Workstation users and the Router application

If the order(s) has been dispatched to the old crew, a ReallocateCrewOrder transaction is sent to the Server. When the Server receives the reallocate crew orders transaction, it is converted to a reallocate field order transaction and sent to the mobile for processing. The Server writes a message to the audit list box and log stating that the order(s) has been reallocated.

If UseScheduler or UseRTS is 'Yes', the Dispatch Workstation application generates a MobilityRescheduleFo transaction for each order that is being rescheduled and sends it to the Server for processing. The scheduled from/end time for each selected order is updated on the database directly by the Dispatch Workstation application. The Server forwards the transactions to the appropriate scheduling module via the Router.

## Validation

The New scheduled Start date/time cannot be prior to the current time. The New scheduled

Finish date/time cannot be prior to the New scheduled Start date/time. The Finish time must be at least 15 minutes greater than the Start time. A crew must be selected.

## **Data Updates**

The Dispatch Workstation application updates the database directly with the status, assignment, and scheduling information for each reallocated order.

## Select Order

### Function/Process Description

This function enables a Dispatch Workstation user to quickly select a field order for view. This function is accessed via the Select Order menu item in the Field Order subsystem or the system-wide hot key combination **CTRL+O**. If the specified field order is not found in the database, an error message is displayed on the Dispatch Workstation desktop; otherwise, the appropriate primary detail screen is displayed.

To search for an order ID from an external system, choose Common Order Id. This is the default. To search for an order ID that was generated by generated by Oracle Utilities Mobile Workforce Management, select MWM Order Number. You cannot unselect both radio buttons. Once you have made your selection, enter the order number you are searching for.

**Note:** In most cases, the Common Order Id and the MWM Order Number are the same.

The specified order must belong to a service area the user is currently monitoring. The selected field order will be displayed in the appropriate field order screen based on the value of the initial field order screen to display (InitialFieldOrderScreen) INI parameter. If the parameter is 'C', the Common information screen is displayed, otherwise the value is 'D' and the appropriate primary detail screen is displayed.

### Data Fields

Data fields are described below:

Field Name	Description
Common Order Id	Select this if you are searching for an order Id from an external system. The system will search for the order number in the CIS_NUMBER field in the DHTFOCMN table. This is the default.
MWM Order Number	Select this if you are searching for an order Id that was generated by Oracle Utilities Mobile Workforce Management. The system will search for the order number in the FO_NUMBER field in the DHTFOCMN table.
Enter order number:	The number of the field order to be selected. This number must match Leading zeros do not need to be entered. The application will pad the number on the right with zeros.

## Interfaces

This function has no external interfaces. The field order data is read directly from the database.

## Validation

The field order number entered must be a valid order on the Oracle Utilities Mobile Workforce Management database. If the order is not found, a message box on the Dispatch Workstation desktop is displayed stating that the order was not found.

## Data Updates

None

# Audit History

The screenshot shows a window titled "Audit History" with a search field for "Field Order Number" containing "OMS00000005313". Below the search field is a table with the following data:

Dispatcher	Crew	Track Status	Cmpl Status	Cmpl Reason	Cmpl Remarks	Cmpl By	Assign Time	Dispatch Time
58667	03361	Assign	Open				03/09/2006 14:01:53	
58667	99999	Enrout	Reassn				02/08/2006 12:31:36	02/08/2006 12:31:36
58667	03361	Ack	Return				12/27/2005 16:32:25	12/27/2005 16:32:25
	CREWADD	Assign	Reassn				08/05/2005 10:46:50	08/04/2005 11:11:4
	CREWADD	Assign	Reschd				08/05/2005 10:46:50	08/04/2005 11:11:4

A "Close" button is located at the bottom right of the window.

## Function/Process Description

This function allows a Dispatch Workstation user to see the history of a field order. This function is accessed via the Audit History menu item in the Field Order subsystem.

The Audit History screen displays a list of the field order scheduling records in chronological sequence from the newest to the oldest. By reviewing the data, the user can tell what has happened to the field order.

## Data Fields

The screen contains the number of the field order being viewed and columns of history data.

- Dispatcher
- Assigned or Allocated Crew
- Tracking Status
- Completion Status
- Completion Reason
- Completion Remarks
- Assign Date/Time
- Allocated Date/Time
- Dispatch Date/Time
- Enroute Date/Time
- On Site Date/Time
- Completion Date/Time

## Interfaces

This function has no external interfaces. The field order data is read directly from the database.

## Validation

None

## Data Updates

None

## Time Edit

## Function/Process Description

The Time Edit function is used to edit the times for a completed field order. This function is accessed via the Time Edit menu item in the Field Order subsystem. The times can only be edited for order types that have a 'Can date and time be changed' flag of 'Y' in the field order type table.

The user can edit any of the times associated with the field order. Additionally, the user can enter dispatcher remarks if needed. The new remarks are stored in the order's completion remarks field.

## Data Fields

Data fields are described below:

Field Name	Description
Address	Service address on the field order
FO Number	Oracle Utilities Mobile Workforce Management field order number
FO Description	Order type description
Assigned Date	Date the order was assigned to the crew.
Dispatch Date	Date the order was dispatched to the crew
Make Safe Date	The time the leak was made safe for gas emergency order. This field is hidden if the order type is not a gas emergency leak (GEG4).
Allocated Date	Date the order was allocated to the crew
Assigned Time	Time the order was assigned to the crew
Dispatch Time	Time the order was dispatched to the crew

Field Name	Description
Make Safe Time	The time the leak was made safe for gas emergency order. This field is hidden if the order type is not a gas emergency leak (GEG4).
Allocated Time	Time the order was allocated to the crew
Enroute Date	Date the crew went enroute to the order
Onsite Date	Date the crew arrived onsite to the order
GRO#	GRO number for gas emergency order. This field is hidden if the order type is not a gas emergency leak (GEG4).
Enroute Time	Time the crew went enroute to the order
Onsite Time	Time the crew arrived onsite to the order
Leak Type	Leak type of gas emergency order. This field is hidden if the order type is not gas emergency leak (GEG4). This list is populated using the leak type validation table (DHTLKTYP).
Completion Date	Date the crew completed the order
Completion Time	Time the crew completed the order
Dispatcher Remarks	Remarks that are added by dispatcher that is editing the times. These remarks are appended to the completion remarks for the order.

## Interfaces

When the time is edited, the Dispatch Workstation application updates the order in the database directly. The updated order data is sent to the Server for routing to the other Dispatch Workstation users and the Router application. The Server writes a message to the audit list box and log stating that an order has been updated from the Dispatch Workstation.

## Validation

None of the dates or times can be blanked out. If the order type is a gas emergency leak (GEG4), the gas emergency data cannot be blanked out. The date/time cannot be changed to a future date/time. If the date/time is changed to more than 14 days in the past, the user is required to confirm the change.

The assigned date/time must be less than the dispatch date/time, which must be less than the enroute date/time, which must be less than the onsite date/time, which must be less than the completion date/time.

The dispatcher remarks are required and must be entered.

If the user makes no changes to the screen, a warning message will be displayed stating that no changes were made. The user must confirm the message box to continue.

## Data Updates

The Dispatch Workstation application updates the field order tables in the database directly.

## Change Field Order Priority

### Function/Process Description

The Change Field Order Priority function is used to change the priority on a field order. This function is accessed via the Change Priority menu item in the Field Order subsystem. The priority can only be changed for order types that have a 'Change Priority' flag of 'Yes' in the field order type table.

The priority of an order should be changed prior to dispatching the order. It is the dispatch process that benefits from the priority change function. What this means is that the order will be dispatched ahead of any regular priority orders and will require the mobile user to manually acknowledge the receipt of the order if manual acknowledgements are required. Changing the priority using this function will have no effect on how the order is scheduled.

### Data Fields

Data fields are described below:

Field Name	Description
Order Type	Type of order being edited
Old Priority	Original priority of the order being edited.
Fo Number	Oracle Utilities Mobile Workforce Management order number of the order being edited
New Priority	The new priority for the order being edited. This field contains a list of all available priorities. This list is populated using the priority validation table (DHTPRTY).

### Interfaces

The Dispatch Workstation application will update the database directly. The updated order data is sent to the Server for routing to the other Dispatch Workstation users and the Router application. The Server writes a message to the audit list box and log stating that an order has been updated from the Dispatch Workstation.

### Validation

None

### Data Updates

The Dispatch Workstation application updates the field order tables in the database directly.

## Status Update

**Field Order Status Update of Non-MDT Crews**

Current Field Order Information

Fo Number: 000000000000023594

Crew ID: RICHARD

Current Status: Dispatched

Current Status Date/Time: 2007/10/04 12:05:44

New Field Order Information

Dispatched

Enroute      ETA:  (Duration HH:MM)

Start

Onsite      ERT:  (Duration HH:MM)

Update ERT

Cancel Status

OK      Cancel      Help

### Function/Process Description

The Field Order Status Update screen enables the Dispatch Workstation user to change the status of orders being worked by non-MDT crews. Since non-MDT crews do not have a mobile computer, the field order status must be reported to the Dispatch Workstation user via the radio. The user uses this function to change the status on the field order. The selected order must be assigned to a non-MDT crew.

Based on the current status of the field order, one or more of the fields in the New Field Order Information section may be disabled. The current status information is displayed. The user can select Dispatched, Enroute, Onsite, Update ERT, or Cancel Status. The status field order will be updated.

## Data Fields

Data fields are described below:

Field Name	Description
FO Number	The number of the field order being modified.
Crew ID	The id of the crew assigned to the field order.
Current Status	The current status of the field order.
Current Status Date/ Time	The date/time the field changed to its current status.
Dispatched	Indicates the status of the field order is to be changed to 'Dispatched'.
Enroute	Indicates the status of the field order is to be changed to 'Enroute'.
Start	Indicates the status of the BREAK is to be changed to 'Onsite'.
ETA	The estimated time of arrival entered as estimated travel duration.
Onsite	Indicates the status of the field order is to be changed to 'Onsite'.
ERT	The estimated restoration time entered as job duration.
Cancel Status	Indicates the status of the field order should be returned to 'Dispatched'.

## Interfaces

The Dispatch Workstation application will update the database directly. The updated order data is sent to the Server for routing to the other Dispatch Workstation users and the Router application. The Server writes a message to the audit list box and log stating that an order has been updated from the Dispatch Workstation.

## Validation

The selected order must be assigned to a non-MDT crew.

## Data Updates

The Dispatch Workstation application updates the field order tables in the database directly.

## Estimated Restoration Time



### Function/Process Description

The Field Order Update Estimated Restoration Time screen enables the Dispatch Workstation user to change the estimated duration until restoration. The user enters the duration as hours and minutes. This will be added to the current time to calculate the estimated restoration time.

### Data Fields

Data fields are described below:

Field Name	Description
Estimated duration until restoration (HH:MM)	The estimated number of hours and minutes until restoration of service for this field order.

### Interfaces

The Dispatch Workstation application will send the estimated restoration time to the Server in an Estimated Restoration Time transaction. The Server will update the field order on the database. The Server will generate an FoStatus ICD containing the estimated restoration time for routing to the other Dispatch Workstation users and the Router application.

### Validation

N/A

### Data Updates

The Server updates the Estimated Restoration Time on the field order table in the database.

## Best Fit Crew

The screenshot shows a window titled "Best Fit" with a blue title bar and a close button. The window contains the following fields and controls:

- Order Number: OMS0000005327
- Order Type: T00200
- Service Address: 5700 GODDARD ST
- # of Nearest Crews: 5 (dropdown menu)
- Buttons: Reallocate, Close
- Table of Nearest Crews:

CREW	DISTANCE
03361	0.000000
03624	0.000455
05075	0.000775
08030	0.000980
10158	0.001774

### Function/Process Description

The Best Fit Crew screen enables the Dispatch Workstation user to view the closest crews to an emergency order. The crews must be logged on and possess the required skills to work the order. Additionally, the user can reassign the order to a selected crew. The Best Fit Crew function is only available for emergency orders.

The Best Fit Crew screen can also be invoked automatically from the Server, if the MfSendBestFit Server INI parameter is TRUE. If an order containing a latitude/longitude is received from an external application, the Server will generate a ShowBestFit ICD and send to all Dispatch Workstation users monitoring the field order's area. When the order is geo-coded by the scheduling module and the order is an emergency order, the Server will generate a ShowBestFit ICD and send to all Dispatch Workstation users monitoring the field order's area. If the parameter is FALSE, the Server will NOT generate any ShowBestFit ICDs.

The screen will default to listing the 5 closest crews based on the current latitude/longitude of the crews and the latitude/longitude of the field order being checked. The crews will be listed with the closest crew at the top of the list. The user can change the number of crews listed, by changing the value of '# of Nearest Crews'.

The user can highlight a single crew in the list and press the Reallocate button. This will invoke the Reallocate Field Order functionality. See **Reallocate** on page 2-23 for more details on the reallocate function.

### Data Fields

Data fields are described in the following table:

Field Name	Description
Order Number	The number of the field order being checked.
Order Type	The type of the field order being checked.
Service Address	The service address of the field order being checked.

<b>Field Name</b>	<b>Description</b>
# of Nearest Crews	The maximum number of crews to be listed.
Crew List	
CREW	The ID of the crew.
DISTANCE	The distance of the crew from the field order being checked.

## Interfaces

This function has no external interfaces. The field order and crew data is read directly from the database.

## Validation

None

## Data Updates

None

## Update Coordinates

### Function/Process Description

The Update Coordinates screen enables the Dispatch Workstation user to update the latitude and longitude coordinates on an order and optionally, updates the latitude/longitude on all related orders. The related orders are defined as orders that contain the same Work Order Number. The Update Coordinates function is only available for any order; regardless of whether the order already contains coordinates.

When the OK button is pressed, the coordinates are validated and if valid, the selected order will be updated in memory and a transaction will be sent to the Oracle Utilities Mobile Workforce Management Server application to update the database.

If the “Update coordinates on all related orders” check box is checked, a list of orders that contains the same work order number as the selected order is retrieved. The coordinates for each retrieved order will be updated and memory and a transaction will be sent to the Oracle Utilities Mobile Workforce Management Server application to update the database.

### Data Fields

Data fields are described below:

Field Name	Description
Latitude	The latitude coordinates to be stored in the order. The number is limited to 3 digits to the left of the decimal point and 15 to the right. A negative sign can be entered at the beginning of the number.
Longitude	The longitude coordinates to be stored in the order. The number is limited to 3 digits to the left of the decimal point and 15 to the right. A negative sign can be entered at the beginning of the number.
Update coordinates on all related orders	Indicates that the latitude/longitude on all related orders should be updated with the entered coordinates.

### Interfaces

When the coordinates are updated on an order, the Dispatch Workstation application sends the updated order data to the Server in an FSMS Updated FO ICD so the order can be updated in the database. The updated order data is sent to the other Dispatch Workstation users and the Router application. The Server writes a message to the audit list box and log stating that an order has been updated from the Dispatch Workstation.

## **Validation**

The user must enter a valid non-zero latitude and longitude coordinate.

## **Data Updates**

The Server application will update the database tables with the updated coordinates.

## Field Order Include Criteria

### Function/Process Description

The Field Order Include Criteria screen enables the Dispatch Workstation user to filter field orders based on specified criteria. The Field Order Include Criteria screen is accessed via the Include Criteria menu item in the Field Order subsystem. Before a field can exist on the Include Criteria screen, it must be an available column in the Field order list.

A field order **MUST** match all specified criteria before it is selected for display on the field order list, with the exception of tracking status, order type, and crew id. The field order **MUST** match one of the selected tracking status and one of the selected order types and one of the selected crew ids to be displayed.

This process is available to all Dispatch Workstation Users with access to the Field Order subsystem. The field order list will be filtered using the specified criteria when the OK button is pressed and when the Selected Orders pre-defined view is displayed.

The Clear button is used to clear any selected/entered values in the Limited Selection fields.

## Data Fields

Data fields are described below:

Field Name	Description
All Orders/Limit Selection	Limit selection must be selected to specify criteria
Tracking status 1	First tracking status used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available tracking status codes from the field order status codes table (DHTFSTAT).
Cost Center	Cost Center (District) used to limit the field orders to be displayed.
Tracking Status 2	Second tracking status used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available tracking status codes from the field order status codes table (DHTFSTAT).
Grid Number	Grid number used to limit the field orders to be displayed.
Completion Status	Completion status used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available completion status codes from the field order status codes table (DHTFSTAT).
Due On Date	Due On date used to limit the field orders to be displayed.
Service Area	Service area used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available service areas from the service area validation table (DHTSERV).
Account Number	Account number used to limit the field orders to be displayed.
Town	Town codes used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available town codes from the town code validation table (DHTTOWN).
Zip Code	Zip code used to limit the field orders to be displayed.
Gas Source Code	Gas source code used to limit the field orders to be displayed.
Meter Code	Meter code used to limit the field orders to be displayed.
Order Type	Order types used to limit the field orders to be displayed. The user can select multiple entries from the list. This list is populated with the available order types from the field order type validation table (DHTFOTYP).
Crew Ids	Crew ids used to limit the field orders to be displayed. The user can select multiple entries from the list. This list is populated with the available crew ids from the database (DHTCREW).
Appt Start Time From/To	Range of appointment start times to be used to limit field orders to be displayed. The user must enter both a To and From time for the field orders to be limited by appointment start time.
Ext. App. Receive Date From/To	Range of External Application Receive dates to be used to limit field orders to be displayed. The user must enter both a To and From date for the field orders to be limited by External Application receive date.

---

<b>Field Name</b>	<b>Description</b>
MWM Receive Date From/To	Range of receive dates in Oracle Utilities Mobile Workforce Management to use to limit the field orders to be displayed. The user must enter both a To and From date for the field orders to be limited by receive date.

---

## Interfaces

There is no additional interface. All processing takes place within the Dispatcher Workstation application.

## Validation

None

## Data Updates

The new criteria are saved internally in memory.



# Chapter 3

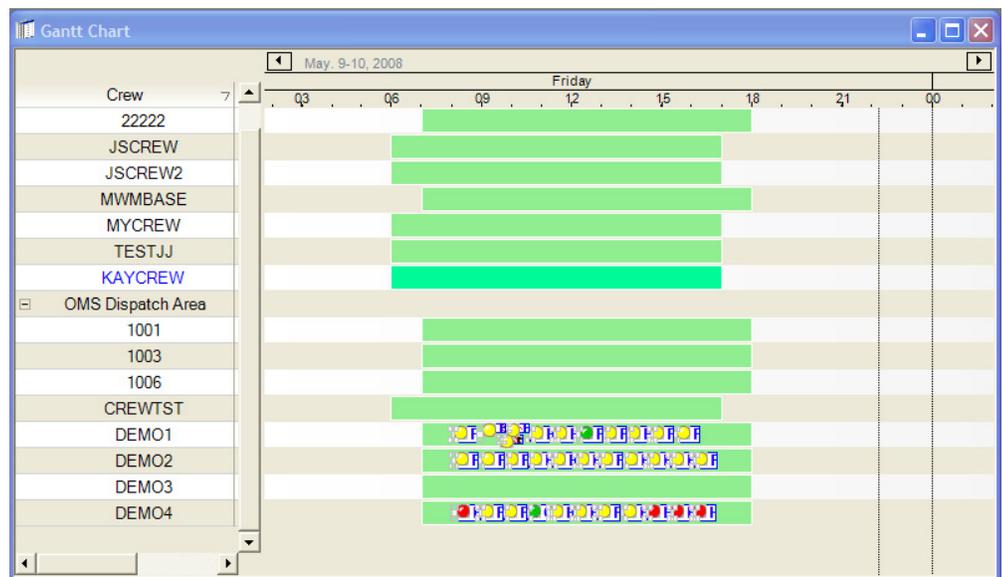
## Gantt Subsystem

This chapter includes the following topics:

- **Gantt Chart Overview**
- **Gantt Subsystem Menus**

### Gantt Chart Overview

The Gantt subsystem is used for monitoring and processing field orders, crews and shifts. The main element of the Gantt subsystem is the Gantt chart. The Gantt chart is automatically displayed when the Gantt subsystem is started.



#### Scope of Data

The scope of data displayed in the Gantt is based on the currently selected dispatch areas and date range of orders to monitor. Thus, a dispatcher can view and manage all orders that are within the monitoring date range and selected dispatch area. A dispatcher can also view all orders assigned to a crew whose base service area is within the selected dispatch area, even if one or more of the orders assigned/allocated to the crew are not within the dispatch area or date range. Orders not

within the selected dispatch area and date range are read-only; the dispatcher cannot take any action on these orders.

Read-only orders display diagonal hash marks, as shown in the following figure:



Hashed marks are not used for orders that are in Worked status (displaying a gray background, as shown in the next section).

### Color Coding

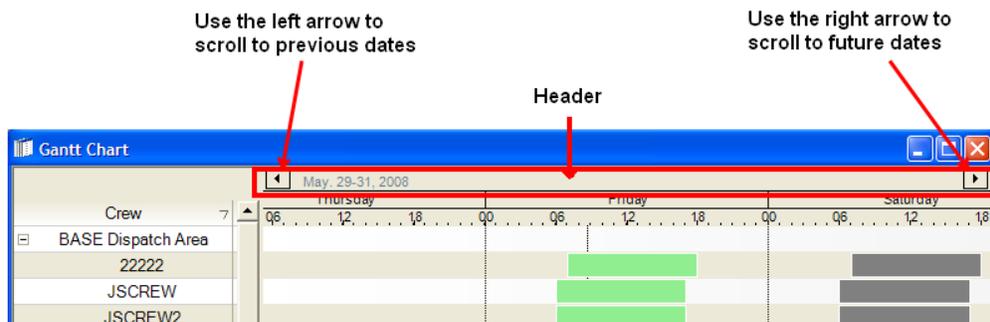
Field Orders are color-coded to indicate status. The default color coding is shown in the following table:

Text Color	Background Color	Description
Black	White	Unassigned
Blue	White	Assigned
Orange	White	Allocated
Black	Magenta	Ready to Dispatch, Being Recalled, Trying to Dispatch
Black	Cyan (Light Blue)	Dispatched and Acknowledged
Black	Yellow	Enroute
Black	Green	Onsite
Green	Gray	Incomplete
Black	Gray	Completed (Worked, Voided, Cancelled, CGI, Completed with Exceptions)

### Time Scale

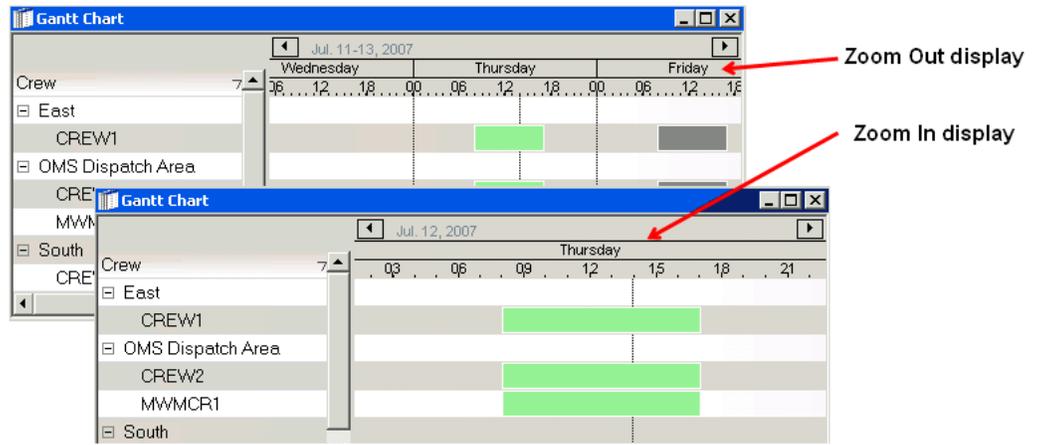
The user can alter the time scale or zoom in and out on time detail by sliding the header area of the Gantt chart left or right. The user is able to zoom out all the way to a century-by-century time scale or zoom in up to the millisecond level. Obviously most users will want something in between.

Use the arrow buttons to scroll forward or backward in time.



To zoom in or decrease the time scale of the Gantt subsystem, hold down the left mouse button in the header area and drag the mouse to the left.

To zoom out or increase the time scale of the Gantt subsystem, hold down the left mouse button in the header area and drag the mouse to the right.



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# Gantt Subsystem Menus

## Actions Menu

The **A**ctions menu contains three subsets of sub-menu items that are specific to the Gantt subsystem. Many of the sub-menu items require that a field order, crew, or shift be selected in the Gantt chart before it can be enabled. The determination of whether a sub-menu item is enabled/disabled is usually based on data in the selected field order and values of the INI parameters in the DHTDWINI database table. The entries in the DHTDWINI table define the requirements for enabling/disabling menu items/buttons (e.g. INI parameters, access level, required data values, etc.). The Actions menu contains the following sub-menu items:

### Field Order Actions Menu

#### Unassign

This menu item is enabled based on the Menu Item Access parameters (as it in the Field Order subsystem). One or more field order must be selected for this menu item to be enabled. When selected, the Dispatch Workstation application updates the database directly with the information for each order.

**Note:** If you unassign an order that is already in the process of being scheduled, it is possible that the order may be allocated and dispatched before the unassign transaction can be processed. For example, this situation could occur if a user manually reallocates an order and then immediately unassigns the order. This situation should occur rarely, if at all, and can easily be resolved by repeating the unassign request.

#### Allocate

This menu item is enabled based on the Menu Item Access parameters (as it in the Field Order subsystem). One or more field order must be selected for this menu item to be enabled. When selected, the Reassign field order screen is displayed. Refer to **Reallocate** on page 2-23.

#### Dispatch

This menu item is enabled based on the Menu Item Access parameters (as it in the Field Order subsystem). One or more field orders must be selected for this menu item to be enabled. When selected, the field orders selected in the list are validated to determine if they are eligible to be dispatched. If the Dispatch\_Future parameter is 'No', the order's Early Start Date/Time cannot be greater than today. The order must be assigned, not completed, and not currently trying to dispatch. If the order is an emergency order, the assigned crew must be currently logged on. The order cannot be assigned to a non-MDT crew. When the dispatch function is complete, the orders will be set ready to dispatch.

#### Status Update

This menu item is enabled based on the Menu Item Access parameters (as it in the Field Order subsystem). A single field order must be selected for this menu item to be enabled. Additionally, the selected field order assigned to a non-MDT crew. When selected, the Status Update screen is displayed. Refer to **Status Update** on page 2-34.

#### Complete

This menu item is enabled based on the Menu Item Access parameters (as it in the Field Order subsystem). A single field order must be selected for this menu item to be enabled. When selected, the appropriate primary detail screen is displayed. The user can enter the required completion information to complete the order. Refer to **Shared Screens** on page 15-1 for specific validation for each field order screen.

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## Crew Actions Menu

### Logged On

This menu item is enabled based on the Menu Item Access parameters. Refer to **Non-MDT Crew Logon** on page 1-16.

### Logged Off

This menu item is enabled when a crew with a status other than 'Logged Off' is selected in the list. When selected, a message box is displayed on the user's desktop asking the user to confirm that the selected crew is to be logged off and whether the crew should be logged off end of shift or not. Refer to **Logoff Crew** on page 4-1.

### Change Primary Function...

This menu item is enabled based on the Menu Item Access parameters. Refer to **Change Primary Function...** on page 4-3 function.

### Shift...Open, Close, Enable, and Disable

These four menu items are disabled if the UseRTS DHTDWINI parameter is FALSE or the current shift has a status code of 'C' (COMPLETED).

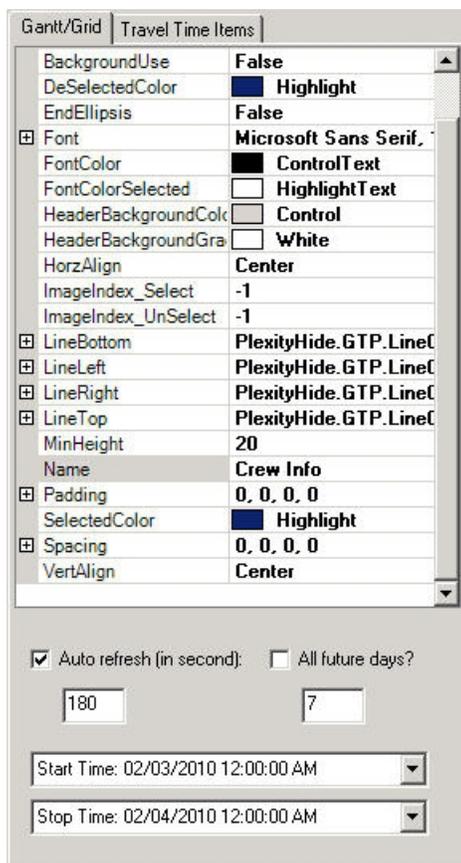
These menu items are enabled based on the shift status. Refer to **Update Shift Status** on page 4-2.

## View Menu

The **V**iew menu contains sub-menu items that are specific to the Gantt subsystem. The View sub-menu items are always enabled when the Gantt subsystem has focus. The View menu contains the following sub-menu items:

### Set Gantt Chart Options...

The option property page view will automatically display on the right-hand side of the subsystem window. Property details are shown in the following figure.



### Gantt/Grid Tab Options

Option	Description
BackgroundColor	Not currently used.
BackgroundUse	Defaults to False.
EndElipsis	Not currently used.
Font	The font used in the Tree view/Grid.
FontColor	The font color of the columns header and Dispatch Area text in the Tree view/Grid.
FontColorSelected	The font color of the selected cell(s) in the Tree view/ Grid.
HeaderBackgroundColor	One of the alternate grid lines color.
HeaderBackgroundGradientColor	The other alternate grid lines color.
HorzAlign	The text alignments horizontally in the Tree view/Grid.
ImageIndex_Select	Not currently used.
ImageIndex_UnSelect	Not currently used.
LineBottom	Not currently used.
LineLeft	Not currently used.

Option	Description
LineRight	Not currently used.
LineTop	Not currently used.
MinHeight	Not currently used.
Name	Not currently used. Always set to "Crew Info."
Padding	Not currently used.
SelectedColor	Not currently used.
Spacing	Not currently used.
VertAlign	The text aligns vertically in the Tree view/Grid.

**Others:**

Option	Description
All future days?	Indicates whether to display data for all future days or only for the number of days specified below the checkbox. The default is to display data for only 7 future days.
Auto Refresh (in second)	Refresh within an interval if checked or refresh only when the Dispatch Workstation receives an update.
Second	Refresh interval in second.
Start Time	Start time of the Gantt Chart.
Stop Time	End time of the Gantt Chart.

**Travel Time Items:**

Option	Description
AllowChangeRow	Not currently used; always set to "True".
AllowLinkReAssignStart	Not currently used; always set to "False".
AllowLinkReAssignTarget	Not currently used; always set to "False".
AllowLinkSelectionStart	Not currently used; always set to "False".
AllowLinkSelectionTarget	Not currently used; always set to "False".
AllowMove	Not currently used; always set to "True".
AllowResizeEast	Not currently used; always set to "False".
AllowResizeWest	Not currently used; always set to "False".
BottomInsert	Not currently used; always set to "20".
BrushKind	The brush of the Time item.
Color	The color of the Time item.
ConflictAreaColor	The color of the Time item in the conflict area.
ConflictAreaDrawStyle	The drawing style of the Time item in the conflict area.

<b>Option</b>	<b>Description</b>
ConflictAreaHatchStyle	The hatching style of the Time item in the conflict area.
FixedSize	Not currently used.
FixedSizeUse	Not currently used.
FrameColor	The frame color of the Time item.
GradientColor	The gradient color of the Time item.
HatchStyle	The hatching style of the Time item.
ImageIndex	Not currently used.
Name	Not currently used; always set to “Travel Time Info”.
SelectHandles	The selected handle color of the Time item.
Shadow	Show shadow on the Time item.
ShadowColor	The shadow color on the Time item.
SnapStartTime	Not currently used.
SnapStopTime	Not currently used.
TimeItemStyle	Not currently used.
TopInsert	Not currently used.

### **Set Crew Display Columns...**

This menu item is used to change the columns that are displayed in the tree view. The user has the option to change the crew columns that are displayed and the crew in which they are displayed. When selected, the Set Display Columns screen is displayed. The crew columns as specified in the DHTDWINI table (SECTION\_NAME = Field Order Column Headers) are used to populate the Set Display Columns screen. Refer to **Set Display Columns Screen** on page 15-183 for more details.

### **Set FO Tooltip Options...**

This menu item is used to change the rows/columns that are displayed in the tool tip. The user has the option to change the FO rows/columns that are displayed and the FO in which they are displayed. When selected, the Set Display Columns screen is displayed. The crew columns as specified in the DHTDWINI table (SECTION\_NAME = Field Order Column Headers) are used to populate the Set Display Columns screen. Refer to the **Set Display Columns Screen** on page 15-183 for more details.

### **Save Options**

This menu item is used to save all the currently selected Gantt subsystem user options to the database. The Gantt subsystem options selected (e.g, tree/crew display columns, width, sequence, sort columns, and Gantt chart’s font) are stored in the database and on the hard drive by the logged on user’s id.

# Chapter 4

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## Crew Status Subsystem

The Crew Status subsystem is used for monitoring and processing crews. This chapter contains the following topics:

- **Crew Status Subsystem Menus**
- **Crew Status List**
- **Set Selected Crews To View**
- **Crew Include Criteria**
- **Crew Detail**
- **Change Primary Function Screen**

### Crew Status Subsystem Menus

#### Actions menu

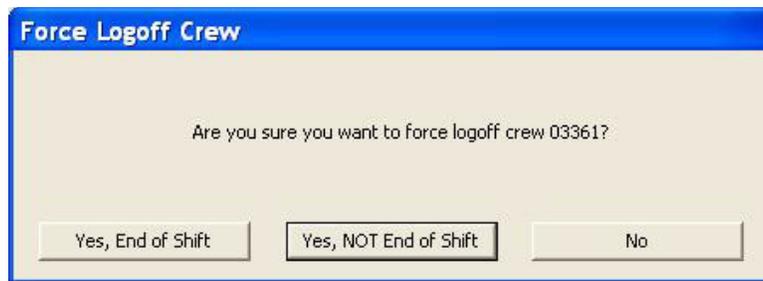
The **A**ctions menu contains sub-menu items that are specific to the Crew Status subsystem. Many of the sub-menu items require that a crew be selected in the crew status list before it can be enabled. The determination of whether a sub-menu item is enabled/disabled is usually based on data in the selected crew. The Actions menu contains the following sub-menu items:

#### **Go To FO Crews Orders View**

This menu item is enabled when a crew is selected in the list. When selected, the user is automatically navigated to the field order subsystem. The Field Order list displays the crew order list for the selected crew. This means the field order list only contains those order assigned to the selected crew. This is a short-cut way to limit the orders on the field order list to a specific crew.

#### **Logoff Crew**

This menu item is enabled when a crew with a status other than 'Logged Off' is selected in the list. When selected, a message box is displayed on the user's desktop asking the user to confirm that the selected crew is to be logged off and whether the crew should be logged off end of shift or not.



If the user selects “Yes, End of Shift”, a force logoff crew transaction with the End of Shift flag set to TRUE is sent to the Server for processing. If the user selects “No, NOT End of Shift”, a force logoff crew transaction with the End of Shift flag set to FALSE is sent to the Server for processing. If the crew is logged off end of shift, the Server will change the status of their current shift to COMPLETE and unassign any un-worked orders assigned to their current shift.

### **Generate Missed Appointment Warnings**

This menu item can be disabled if the allow crew warnings to be disabled (Disable\_CrewWarnings) DHTDWINI parameter is 'Yes', otherwise this menu item is enabled when a crew with Missed Appointment Warnings turned off is selected in the list. When selected, the Generate Appointment Warnings flag in the crew database table will be updated to 'Y'. This indicates that the Server can generate missed appointment warnings for this crew.

### **Stop Missed Appointment Warnings**

This menu item can be disabled if the Disable\_CrewWarnings DHTDWINI parameter is 'Yes', otherwise this menu item is enabled when a crew with Missed Appointment Warnings turned on is selected in the list. When selected, the Generate Appointment Warnings flag in the crew database table will be updated to 'N'. This indicates that the Server should NOT generate missed appointment warnings for this crew.

### **Generate Taking Too Long Warnings**

This menu item can be disabled if the Disable\_CrewWarnings DHTDWINI parameter is 'Yes', otherwise this menu item is enabled when a crew with Taking Too Long Warnings turned off is selected in the list. When selected, the Generate Taking Too Long Warnings flag in the crew database table will be updated to 'Y'. This indicates that the Server can generate taking too long warnings for this crew.

### **Stop Taking Too Long Warnings**

This menu item can be disabled if the Disable\_CrewWarnings DHTDWINI parameter is 'Yes', otherwise this menu item is enabled when a crew with Taking Too Long Warnings turned on is selected in the list. When selected, the Generate Taking Too Long Warnings flag in the crew database table will be updated to 'N'. This indicates that the Server should NOT generate taking too long warnings for this crew.

### **Find on Map**

This menu item is enabled when a crew is selected in the list and the Mapping subsystem is active. When selected, the mapping subsystem is manipulated such that the crew will appear in the center of the map. If the crew is not currently displayed on the map, a message box is displayed stating that the crew is not currently displayed on the map.

### **Update Shift Status**

This menu item contains another sub-menu containing four items: Open, Close, Enable, and Disable. These four menu items are used to change the status of the crew’s current shift. This

menu item is disabled if the UseRTS DHTDWINI parameter is FALSE or the current shift has a status code of 'C' (COMPLETED).

If the current shift status code is not 'C' (completed), then one or more of the Update Shift Status sub-menu item will be enabled, based on the table below.

Shift Status Code	Enabled Sub-Menu Items	Shift Command	New Shift Status Code
P (PLANNED)	Close	CLOSE	O (CLOSED)
P (PLANNED)	Disable	DISABLE	D (DISABLED)
O (CLOSED)	Open	OPEN	P (PLANNED)
O (CLOSED)	Disable	DISABLE	D (DISABLED)
S (STARTED)	Close	CLOSE	G (COMPLETING)
G (COMPLETING)	Open	OPEN	S (STARTED)
D (DISABLED)	Enable	ENABLE	P (PLANNED)

### Change Primary Function...

This menu item is enabled based on the Menu Item Access parameters. Refer to **Change Primary Function Screen** on page 4-18.

### Emergency Monitoring

This menu item is enabled when one or more crews are selected in the crew list and the Mapping subsystem is active. This menu option enables or disables emergency monitoring for the selected crew(s). If a crew is currently being monitored, selecting this option turns off emergency monitoring. If a crew is not currently being monitored, selecting this option turns on emergency monitoring.

When emergency monitoring is enabled for a crew, the crew is displayed and tracked in the MapViewer. The MapViewer theme changes to Tracked Crews, and the selected crew is added to a special profile called EMERGENCY. All crews in the EMERGENCY profile are automatically designated as Trackable, which means that the MapViewer will follow the crews on the map. Refer to **Mapping Subsystem** on page 12-1 for more information about themes and profiles.

If emergency monitoring is enabled for a crew, a checkmark will appear next to the Emergency Monitoring menu option when that crew is selected. Selecting the menu option again will disable emergency monitoring and remove the checkmark. (You can also right-click the crew in the list to access this option from the pop-up menu.)

**Note:** If multiple crews are selected, the checkmark will not appear. Selecting this menu option for multiple crews toggles the emergency monitoring state for each individual crew. If emergency monitoring was previously enabled for a crew, it is disabled; if emergency monitoring was previously disabled, it is enabled. To determine a crew's emergency monitoring status, select only that crew and look for the presence or absence of the checkmark beside the Emergency Monitoring menu option.

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## View Menu

The **V**iew menu contains sub-menu items that are specific to the Crew Status subsystem. The View sub-menu items are always enabled when the Crew Status subsystem has focus. The View menu contains the following sub-menu items:

### Predefined Views

This menu item contains a sub-menu of available predefined views. The sub-menu items are **All Crews in Dispatch Area(s)**, **Crews with Uncompleted Orders**, **Crews Late for Appointment**, **Crews Taking Too Long**, **Crews Working Emergency Orders**, **Selected Crews**, and **Selected Crews from Map**. Selecting a predefined view will automatically display the appropriate crews in the crew status list.

**Note:** The Selected Crews from Map pre-defined view displays crews that were selected using the Lasso Fos and Crews option on the Mapping subsystem toolbar.

### Copy

This menu item is enabled when one or more crews are highlighted in the list. When selected, the selected crew data is copied into the clipboard for use in another application (e.g. Microsoft Excel).

### Logged On Crews Only

This menu allows the user to specify only logged on crews should be displayed in the crew status list. Clicking on this menu item will toggle this option off/on. If the option is on, a checkmark will appear to the right of the menu item.

### Set Selected Crews to View...

This menu item is used to specify groups of crews to view in the Selected Crew List predefined view. When selected, the Set Selected Crews to View screen is displayed. Refer to **Set Selected Crews To View** on page 4-9.

### Supervised Crew Selection

This menu item is always disabled in the Dispatch Workstation application. This menu item is only available in the Mobile Workstation version.

### Include Criteria...

This menu item is used to specify criterion that is used to limit the crews displayed in the list. When selected, the Crew Include Criteria screen is displayed. Refer to **Crew Include Criteria** on page 4-12.

### Set Display Columns...

This menu item is used to change the columns that are displayed in the field order list. The user has the option to change the field order columns that are displayed and the order in which they are displayed. When selected, the Set Display Columns screen is displayed. The field order columns as specified in the DHTDWINI table (SECTION\_NAME = Crew Status Column Headers) are used to populate the Set Display Columns screen. Refer to **Set Display Columns Screen** on page 15-183 for more information.

### Set Sort Columns...

This menu item is enabled based on the Menu Item Access parameters. This menu item is used to change the columns that are used to sort the field order list. The user has the option to change the field order columns that are used in the sort and whether the field is sorted ascending or descending. When selected, the Set Sort Columns screen is displayed. The field order columns as specified in the DHTDWINI table (SECTION\_NAME = Crew Status Column Headers) are used

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to populate the Set Sort Columns screen. Refer to **Set Sort Columns Screen** on page 15-185 for a further description of this function.

## Font

This menu item contains a sub-menu of available font settings. The sub-menu items are **Small Font**, **Medium Font**, and **Large Font**. A checkmark will appear next to the current font selection. Clicking on another font selection will automatically redisplay the data in the crew status list using the selected font. Font change is temporary until the **Save Options** menu item is selected.

## Save Options

This menu item is used to save all the currently selected crew status subsystem user options to the database. The Crew Status subsystem options selected (e.g. display columns, width, sequence, sort columns, and font) are stored in the database by logged on user's id. Additionally, the Logged On Crews Only option is also saved in the database

## Auto-Resize Columns

This menu item will resize the width of the displayed crew status list columns so that all the data in the column is visible. The data in the column or the column heading determines the width of the column, which is wider. The column heading will always be put on one line when this function is used. This menu item is useful after the font has been changed.

## Data Fields

Function dependent. Refer to the specific crew status function for a list of data fields.

## Interfaces

Function dependent. Refer to the specific crew status function for interface details.

If the Logoff Crew menu item or Force Logoff button is selected, the Dispatch Workstation application will generate a force logoff crew transaction and send it to the Server for processing. The Server will automatically generate a mobile logoff transaction for internal processing and send the force logoff crew transaction to the mobile.

If the Update Shift Status menu item is selected, the Dispatch Workstation application will update the shift status code of the current shift directly in the database. A shift update transaction will be generated and sent to the Server for processing. The Server will allocate any un-allocated orders assigned to the shift when the shift is CLOSED and unassign any orders assigned to the shift when the shift is DISABLED. The Server will forward the shift update transaction to the Router for sending to Oracle Real-time Scheduler. The Server will generate a crew update transaction and send it to all appropriate logged on Dispatch Workstation users

## Validation

Function dependent. Refer to the specific crew status function for validation details.

## Data Updates

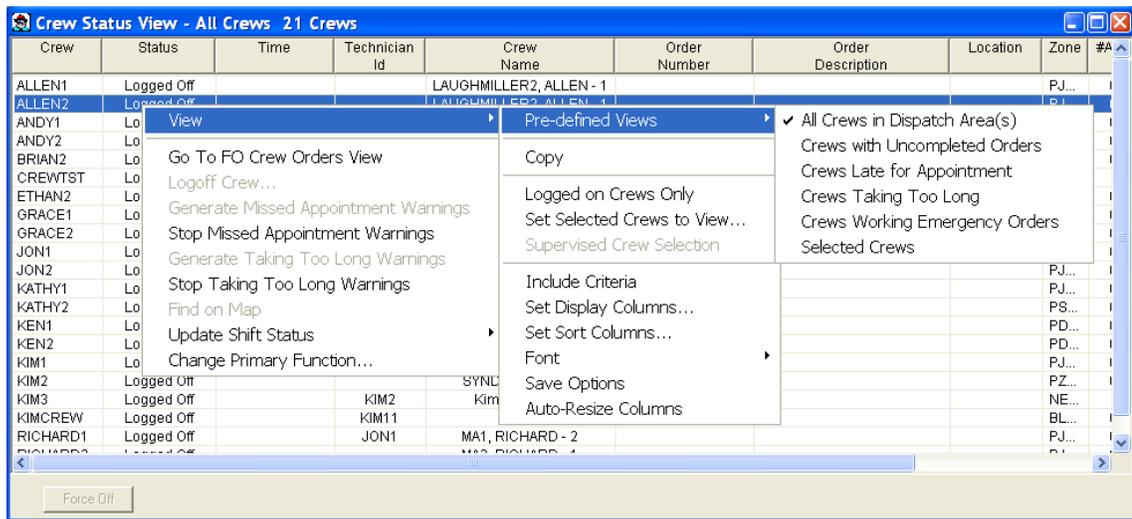
Function dependent. Refer to the specific crew status function for data update details.

If the Generate Missed Appointment Warnings, Stop Missed Appointment Warnings, Generate Taking Too Long Warnings, or Stop Taking Too Long Warnings menu items are selected, the Dispatch Workstation application will update the crew data in the database directly.

If one of the Update Shift Status sub-menu items is selected, the Dispatch Workstation application will update the shift status in the database directly.

## Crew Status List

The main element of the Crew Status subsystem is the Crew Status List. The Crew Status List is automatically displayed when the crew status subsystem is started.



### Function/Process Description

The Crew List provides a tabular display of crews and is capable of displaying all crews in the dispatch areas being monitored by the logged on user. The number of crews currently displayed and the name of the current predefined view are displayed in the title bar of the crew status list.

**Note:** The Crew List displays all crews that are currently working orders within the selected dispatch area. If a crew is currently working an order outside the selected dispatch area, the crew will not appear in the list.

The user has the option to change the crew status columns that are displayed and the order in which they are displayed by selecting the 'Set Display Columns' menu item under the View menu item. The user can also move the position of a column by clicking on the column header and dragging the column to the desired position.

The user has the option to change the crew status columns that are used to sort the crews in the list by selecting the 'Set Sort Columns' menu item under the View menu item.

The user has the ability to perform a quick sort by selecting one of the column headings. This quick sort will sort all visible columns based on the column heading selected. Only one sort can be executed at a time.

The user has the option of changing the width of the crew status columns. Using the mouse, position the cursor so that is on the line following the column header that is to be adjusted. The cursor will change to a double arrow. Click the left button and drag the line until the column is the desired width.

The user has the option to change the size of the font used to display the crew status text (e.g. Large, Medium, and Small) by selecting the 'Font' menu item under the View menu item.

Using the right mouse button while in the list will display the pop-up menu. The pop-up menu contains the same menu items as the Actions menu and the View menu. Some of these menu items may be disabled based on the selected crew.

Refer to **Crew Status Subsystem Menus** on page 4-1 for a description of the menu items.

The User can display detail Crew information by double clicking on the desired Crew. The Crew Detail screen is displayed. Refer to **Crew Detail** on page 4-14.

The Crew status list is refreshed automatically every x seconds where x is the value of the number of seconds between automatic refresh of the crew status list (CrewRefreshFrequencySecs) parameter in the DHTDWINI database table.

The Crew status list has one button at the bottom of the screen. This button is a duplicate of an Action menu item.

**Force Logoff** -This button is disabled when the Disable\_MobileForceLogoffs INI parameter is set to 'Yes'; otherwise the button is enabled when a crew with a status other than 'Logged Off' is selected in the list. When selected, a message box is displayed on the user's desktop asking the user to confirm that the selected crew is to be logged off. If the user selects yes, a force logoff crew transaction is sent to the Server for processing.

## Data Fields

Data fields are described below:

Col#	Header	Mapped Data
0	Crew	CREW
1	Supervisor Indicator	Supervisor Indicator
2	Status	Crew_Status@DHTCRWST.TBL::STATUS_ABBR
3	Time	TIME_STAMP=DATETIME(%m/%d/%Y %H:%M:%S)
4	Technician Id	USER_ID
5	Crew Name	TECH_NAME
6	Order Number	FO_NUMBER
7	Location	DISPLAY_ADDR_1
8	Scheduling Area	Scheduling Area
9	Unused (Grid Number)	Unused (Grid Number)
10	#Assn	FO_ASSIGNED
11	#Cmpl	FO_COMPLETED
12	#Realloc	FO_REALLOCATED
13	#Resch	FO_RESCHEDULED
14	#Disp	FO_DISPATCHED
15	Unused (Work Time Remaining)	Unused (Work Time Remaining)
16	Enroute Time	ENROUTE_DTTM=DATETIME (%m/%d/%Y %H:%M)
17	Arrive Time	ONSITE_DTTM=DATETIME (%m/%d/%Y %H:%M)
18	Dispatch Time	DISPATCH_DTTM=DATETIME (%m/%d/%Y %H:%M)
19	Appt Indicator	SPARE_5
20	District	DISTRICT

Col#	Header	Mapped Data
21	Missed Appointment	GEN_APPT_WARNING
22	Taking Too Long	GEN_LONG_WARNING
23	#Ret	FO_RETURNED
24	#Incmpl	FO_INCOMPLETE
25	#Recall	FO_RECALLED
26	Zone	SERVICE_AREA
27	Order Description	FO_TYPE_DESC
28	#Alloc	FO_ALLOCATED
29	Crew Type Icon	USER_TYPE
30	Vehicle Type	VEHICLE_DESC
31	Primary Function	PRIMARY_FUNC_CD@DHTPFUNC.TBL::PRIMARY_FUNC_DESC
32	Shift Id	SHIFT_ID
33	Shift Status	SHIFT_STATUS_CD@DHTSSTAT.TBL::SHIFT_STAT US_DESC
34	Shift Start Time	SHIFT_START_DTTM=DATETIME(%m/%d/%Y %H:%M)
35	Shift End Time	SHIFT_END_DTTM=DATETIME(%m/%d/%Y %H:%M)

## Interfaces

The Crews are retrieved directly from the database and the Crew data is stored internally in the Dispatch Workstation application. When the Crew status list is displayed, the appropriate records and columns are shown. There are no external interfaces.

## Validation

Some of the menu items are enabled only when a Crew is highlighted in the Crew status list. Only one Crew can be selected at a time.

## Data Updates

All the data in this list is read-only, so no data is updated.

# Set Selected Crews To View

## Function/Process Description

The Set Selected Crews to View function enables the user set up pre-defined groups of crews to view. The Set Selected Crews to View screen is accessed via the Set Selected Crews to View menu item in the Crew Status subsystem.

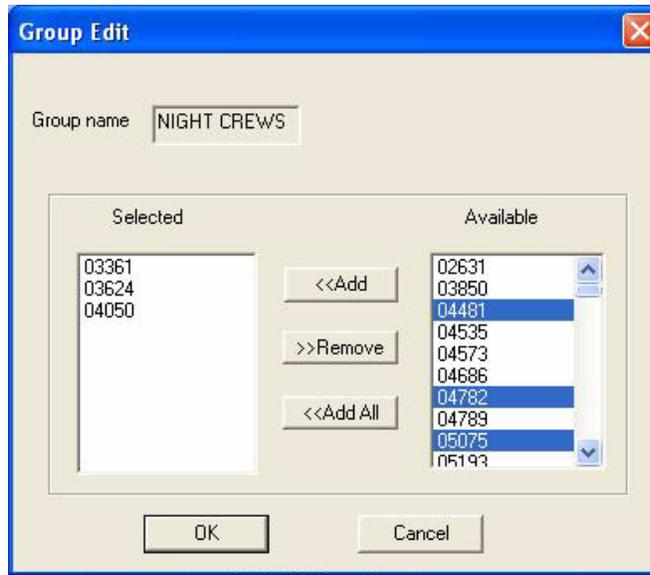
A group of crews to view is used to limit the crews displayed in the Crew Status list. This function is used to create, edit, delete, and select crew groups. The group specifications are stored in the database under the logged on user's id and are accessible anytime the user is logged on. When selected, the Set Selected Crews to View Selection screen is displayed (see below).



The Selection screen contains a list of the current crew groups set up by the user. From this screen, the user can choose to add, delete, edit, or set a group.

- To add a group, select the Add button. The Set Selected Crews to View Detail screen will be displayed. See the next section for details on completing this screen.
- To edit a group, highlight the desired group in the list box and select the Edit Group button. The Set Selected Crews to View Detail screen will be displayed. See the next section for details on completing this screen.
- To delete a group, highlight the desired group in the list box and select the Delete Group button. The user will be asked to confirm deletion of the group. If the user confirms deletion, the group is deleted from the list box.

## Group Edit



The user can set the group to use by highlighting the desired group in the list. Additionally, the user can automatically change the crew status list to the Selected Crews pre-defined view upon exit, by selecting the 'Jump to Selected Crews View' check box. If no crew is highlighted in the list when the Ok button is pressed, no group is set. The user will not be able to use the Selected Crews pre-defined view. A group must be set (highlighted in the list) before the Selected Crews pre-defined view will work.

If a group is being added, the user must specify a group name. If the group is being edited, the group name field is read-only. The Selected list box contains a list of the crews that are currently selected for this group. If the group is being added, this list box is empty. The Available list box contains a list of the crews in the areas being monitored by the user that are not currently selected for the group. The user can select crews by highlighting the desired crews in the Available list box and pressing the Add button. The highlighted crews will be moved from the Available list box to the Selected list box. The user can move all the crews to the Available list box by selecting the Add All button. The user can unselect crews by highlighting the desired crews in the Selected list box and pressing the Remove button. The highlighted crews will be moved from the Selected list box to the Available list box. The user must select at least one crew to view in a group. The user can create an unlimited number of groups.

This process is available to all Dispatch Workstation Users with access to the Crew Status subsystem.

## Data Fields

### Set Selected Crews to View Screen

Field Name	Description
List of groups	This field contains a list of the current groups for the logged on user.
Jump to Selected Crews View	This check box is used to automatically switch the crew status list to the Selected Crews pre-defined view upon exit from this screen. If this box is unchecked, the crew status view will remain unchanged.

**Set Selected Crews to View Detail Screen**

<b>Field Name</b>	<b>Description</b>
Group Name	The name of the group being added/edited.
Selected	The list of crews currently selected for the group.
Available	The list of crews not selected (available) for the group.

**Interfaces**

There is no additional interface. All processing takes place within the Dispatcher Workstation application.

**Validation**

At least one crew must be selected for a group.

**Data Updates**

The Dispatch Workstation application updates the database tables directly.

## Crew Include Criteria

### Function/Process Description

The Crew Include Criteria screen enables the Dispatch Workstation user to filter crews based on specified criteria. The Crew Include Criteria screen is accessed via the Include Criteria menu item in the Crew Status subsystem. Before a field can exist on the Include Criteria screen, it must be an available column in the Crew Status list.

A crew **MUST** match all specified criteria before it is selected for display on the crew status list, with the exception of order type. The type of the current order being worked by a crew **MUST** match one of the selected order types to be displayed.

This process is available to all Dispatch Workstation Users with access to the Crew Status subsystem. The crew status list will be filtered using the specified criteria when the OK button is pressed and when the Selected Crews pre-defined view is displayed.

### Data Fields

Data fields are described below:

Field Name	Description
All Orders/Limit Selection	Limit selection must be selected to specify criteria
Crew Status	Crew status used to limit the crews to be displayed. The user can select 1 from the list. This list is populated with the available crew status codes from the crew status codes table (DHTCRWST).
Crew ID	The ID of the crew to be displayed.
Crew Name	The name of the crew to be displayed.

---

<b>Field Name</b>	<b>Description</b>
Service Area	Service area used to limit the crews to be displayed. The user can select 1 from the list. This list is populated with the available service areas from the service area validation table (DHTSERV).
Order Type	Order types used to limit the crews to be displayed. The user can select multiple entries from the list. This list is populated with the available order types from the field order type validation table (DHTFOTYP).

---

## Interfaces

There is no additional interface. All processing takes place within the Dispatcher Workstation application.

## Validation

None

## Data Updates

The entered criteria are kept internally in memory.

## Crew Detail

**Crew Detail Screen**

**Crew Data**

Crew ID: CRW1    Vehicle ID: VEH1    Primary Function: Service

Tech ID: USER2    Tech Name: CRW1    Pager/Cell PNumber: \_\_\_\_\_

User ID1: \_\_\_\_\_    Tech 1 Name: \_\_\_\_\_    Pager/Cell Number 2: \_\_\_\_\_

User ID2: \_\_\_\_\_    Tech 2 Name: \_\_\_\_\_

User ID3: \_\_\_\_\_    Tech 3 Name: \_\_\_\_\_

User ID4: \_\_\_\_\_    Tech 4 Name: \_\_\_\_\_

**Current Field Order Data**

Fo Number: \_\_\_\_\_    Ext. App. Number: \_\_\_\_\_    Service Area: \_\_\_\_\_    Division: \_\_\_\_\_

Service Address: \_\_\_\_\_    District: \_\_\_\_\_

Schedule Time Start	Schedule Time End	Mobility Order#	Order Description	Tracking Status Abbr
2009/04/20 08:00:00	2009/04/20 09:00:00	84255620070759	High	Dspch
2009/04/20 08:00:00	2009/04/20 09:00:00	84255620070625	Extreme/Life Threatning	Ready
2009/04/20 08:00:00	2009/04/20 09:00:00	84255620070758	Extreme/Life Threatning	Ready
2009/04/20 08:00:00	2009/04/20 09:00:00	84255620070438	Prob Device Out	Worked
2009/04/20 08:00:00	2009/04/20 09:00:00	84255620070388	Prob Device Out	Worked
2009/04/20 08:00:00	2009/04/20 09:00:00	84255620070492	Prob Device Out	Enrout
2009/04/20 08:00:00	2009/04/20 09:00:00	84255620070398	Prob Device Out	Enrout

Assigned: 12    Allocated: 08    Dispatched: 05    Completed: 01    Incomplete: 01    Remaining: 10

Time Remaining In Shift: 03:17

Time To Work Remaining Orders: 06:00

Buttons: Close, Support Vehicles, Help

## Function/Process Description

The Crew Detail function enables the user to view the details of the selected crew. The order list is populated based on your system's configuration:

- If you are using the Oracle Real-Time Scheduler, the Crew Detail order list displays only field orders allocated to the current shift for the selected crew, as well as assigned orders that do not yet have a shift (for example, those that were assigned by an external application assigned and scheduling information is pending).
- If you are not using Oracle Real-Time Scheduler, all assigned orders for the selected crew are displayed in the list and counts are recalculated based on the orders' status.

Double-clicking on a crew in the Crew Status list accesses the Crew Detail function. The screen is divided into two parts: the crew list on the left and the crew details on the right. The user can display the details of a different crew by clicking on the desired crew in the crew list.

The Close button will dismiss this screen and Help will invoke the online help utility. The Support Vehicles button is used to view the support vehicle data associated with the selected crew. When pressed, the Support Vehicles screen is displayed. The Support Vehicles button will be disabled if the SupportVehiclesAvailable parameter is set to 'FALSE'. Refer to **Support Vehicles Screen** on page 15-180 for a further description of this function.

The crew list lists has three major tabs/sections: Crews in Dispatch Area, Crews NOT in Dispatch Area, and Unassign. The Crews in Dispatch Area lists all crews that are currently in one of the user's assigned dispatch areas. The Crew NOT in Dispatch Area lists all crews that are not currently in one of the user's assigned dispatch areas. The Unassign tab is used to unassign orders (discussed later with 'Drag and Drop').

The user can view the details of a different crew by clicking on the desired crew in the list window. The details window will display the details for the new crew.

The user can reallocate/dispatch orders using the Crew Detail function. Select the order(s) that need to be reallocated/dispatched. Drag the orders and drop them on the desired crew in the crew list window. If the orders should be unassigned, drop the orders on the Unassign tab in the crew list window. A Reallocate/Dispatch transaction is generated and sent to the Field Order subsystem

for processing. See **Reallocate** on page 2-23 for more details on the reallocate function.

To close the crew details function, click the Close button or the 'X' in the top right corner of the screen.

## Data Fields

Crew Detail Screen data fields are described below:

Field Name	Description
Crew list	Lists all crews in the Oracle Utilities Mobile Workforce Management system, divided into two sections: crews in dispatch area and crews not in dispatch area. The list also contains an Unassign tab for unassigning orders using 'Drag and Drop'.
Crew Data	
Crew ID	The id of the crew whose details are displayed.
Vehicle ID	The id of the vehicle that the crew is currently using
Primary Function	
Tech ID	The id of the primary user assigned to the crew
Tech Name	The name of the primary user assigned to the crew
Pager/Cell Phone Number	The primary cell/pager phone number of the primary user assigned to the crew
User ID 1	Id of additional user logged into the crew.
Tech 1 Name	Name of additional user logged into the crew.
Pager/Cell Phone Number2	The secondary cell/pager phone number of the primary user assigned to the crew
User ID 2	Id of additional user logged into the crew.
Tech 2 Name	Name of additional user logged into the crew.
User ID 3	Id of additional user logged into the crew.
Tech 3 Name	Name of additional user logged into the crew.
User ID 4	Id of additional user logged into the crew.
Tech 4 Name	Name of additional user logged into the crew.
Current Field Order Data	
FO Number	The Oracle Utilities Mobile Workforce Management number of the order the crew is currently working.
Host System Number	The Host System number of the order the crew is currently working.
Service Area	The service area of the order the crew is currently working
Division	The division of the order the crew is currently working
District	The district of the order the crew is currently working

Field Name	Description
Service Address	The service address of the order the crew is currently working
Field order list	The list of field orders currently assigned to the crew. See the next section for details.
Assigned	The number of orders assigned to the crew.
Allocated	The number of orders allocated to the crew.
Dispatched	The number of orders dispatched to the crew.
Completed	The number of orders completed by the crew.
Incomplete	The number of orders incomplete for the crew.
Remaining	The number of orders currently remaining for the crew to work (all open and incomplete orders for the crew).
Time remaining in Shift	If the active shift has already ended, this is blank. If the current time is earlier than the shift start time, this displays the shift duration (shift end time - shift start time). If the current time is later than the shift start time, this displays the remaining time in the shift (shift end time - current time).
Time to work remaining orders	The time (format: HH:MM) required to work the crew's remaining open orders. This is calculated using the estimated completion minutes of the field orders listed.

### Field Order List Columns

Col#	Header	Mapped Data
0	Schedule Time Start	[FO History1]SCHED_FROM_DTTM(%m/%d/%Y %H:%M:%S)
1	Schedule Time End	[FO History1]SCHED_END_DTTM(%m/%d/%Y %H:%M:%S)
2	Mobility Order#	FO_NUMBER
3	Order Description	FO_TYPE@DHTFOTYP.TBL::FO_TYPE_DESC
4	Tracking Status Abbr	'T'[FO History1]FO_TRACK_STATUS@DHTFSTAT.TBL::STATUS_ABBR
5	Time Changed	[FO History1]DISPATCH_DTTM(%m/%d/%Y %H:%M:%S)
6	Service Address	DISPLAY_ADDR_1
7	Sched Area	SCHEDULING_AREA
8	Compl Status Code	[FO History1]FO_CMPL_STATUS

## Interfaces

There is no additional interface. All processing takes place within the Dispatcher Workstation application. The data is read directly from the database tables by the Dispatch Workstation application.

If orders are reallocated/unassigned via 'Drag and Drop', the reallocate functionality in the Field Order subsystem is called. Refer to **Reallocate** on page 2-23 for more details.

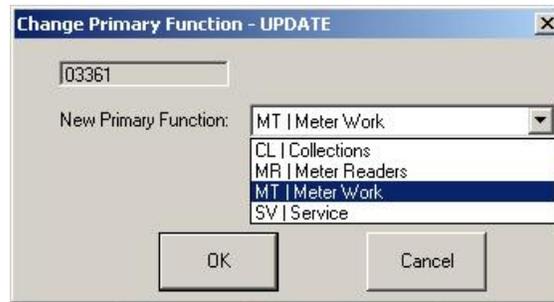
## Validation

If orders are reallocated/unassigned via 'Drag and Drop', the reallocate functionality in the Field Order subsystem is called. Refer to **Reallocate** on page 2-23 for more details.

## Data Updates

The Dispatch Workstation application reads the data directly from the database and the data are not updated in this function. If orders are reallocated/unassigned via 'Drag and Drop,' the reallocate functionality in the Field Order subsystem is called. Refer to **Reallocate** on page 2-23 for more details.

## Change Primary Function Screen



### Function/Process Description

This function enables a Dispatch Workstation user to change a crew's primary function. This function is accessed via the Change Primary Function menu item in the Actions menu or on the pop-up menu. A crew must be selected before the menu item is enabled.

The Change Primary Function screen is used when a dispatch user wants to change the primary function of a crew so that they will be assigned a different type of order based on their new primary function. Primary function is used by the Oracle Utilities Mobile Workforce Management scheduling module to assign orders to the appropriate crews.

The user selects their new primary function and presses the OK button. The new primary function is sent to the Server for processing and routing to the Oracle Utilities Mobile Workforce Management scheduling module. The crew whose primary function was changed will be notified of the change if they are currently logged on.

### Data Fields

Data fields are described below:

Field Name	Description
Crew id	The id of the logged on crew.
New Primary Function	List of available primary functions. This list is populated using the primary function table (DHTPFUNC).

### Interfaces

The Dispatch Workstation application sends an RF Logon Update transaction containing the new primary function to the Server for processing. The Server will update the primary function in the crew's shift configuration; the base configuration is unaffected. A crew update containing the new primary function is sent to the Router for routing to the scheduling module. The ICD is sent to the mobile crew if they are logged on as notification that their primary function has been changed by the dispatcher.

### Validation

The user must select a new primary function.

### Data Updates

The server will update the shift primary function in the crew table (DHTCREW).

# Chapter 5

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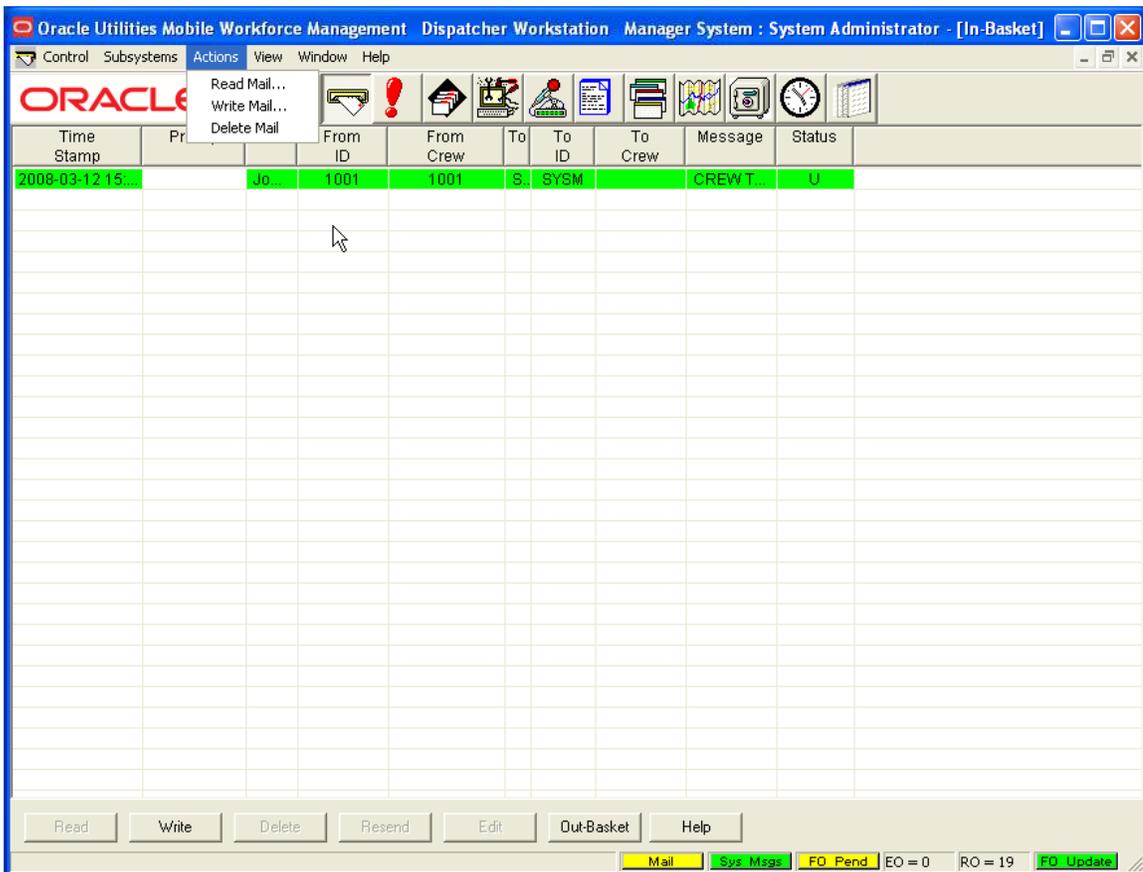
## Mail Subsystem

The Mail subsystem is used for sending and receiving mail messages. This chapter includes the following topics:

- **Mail Subsystem Menus**
- **Mail List**
- **Read Mail**
- **Write Mail**
- **Reply Mail**
- **Forward Mail**

# Mail Subsystem Menus

## Actions Menu



## Function/Process Description

### Actions Menu

The **A**ctions menu contains sub-menu items that are specific to the Mail subsystem. Many of the sub-menu items require that a mail message be selected in the mail list before it can be enabled. The Actions menu contains the following sub-menu items:

### Read Mail...

This menu item is enabled when one or more mail messages are selected in the mail list. When selected, the Read Mail screen is displayed. Refer to **Read Mail** on page 5-8.

### Write Mail...

This menu item is always enabled. When selected, the Write Mail screen is displayed. Refer to **Write Mail** on page 5-10.

### Delete Mail...

This menu item is enabled when one or more mail messages are selected in the mail list. When selected, a message box is displayed asking the user to confirm that the selected mail messages should be deleted. If the user selects 'Yes', the mail message is removed from the mail list and an update mail message transaction is sent to the Server for processing.

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## View Menu

The **V**iew menu contains sub-menu items that are specific to the Mail subsystem. The View sub-menu items are always enabled when the Mail subsystem has focus. The View menu contains the following sub-menu items:

### Predefined Views

This menu item contains a sub-menu of available predefined views. The sub-menu items are **In-Basket View** and **Out-Basket View**. Selecting a predefined view will automatically display the appropriate mail messages in the mail list.

### Copy

This menu item is enabled when one or more mail messages are highlighted in the list. When selected, the selected message data is copied into the clipboard for use in another application (e.g. Microsoft Excel).

### Set Display Columns...

This menu item is used to change the columns that are displayed in the mail list. The user has the option to change the mail columns that are displayed and the order in which they are displayed. When selected, the Set Display Columns screen is displayed. The mail columns as specified in the DHTDWINI table (SECTION\_NAME = Mail Column Headers) are used to populate the Set Display Columns screen. Refer to **Set Display Columns Screen** on page 15-183 for more information.

### Font

This menu item contains a sub-menu of available font settings. The sub-menu items are **Small Font**, **Medium Font**, and **Large Font**. A checkmark will appear next to the current font selection. Clicking on another font selection will automatically redisplay the data in the mail list using the selected font.

### Save Options

This menu item is used to save all the currently selected mail subsystem user options to the database. The Mail subsystem options selected (e.g. display columns, width, sequence, and font) are stored in the database by logged on user's id.

### Auto-Resize Columns

This menu item will resize the width of the displayed mail list columns so that all the data in the column is visible. The data in the column or the column heading determines the width of the column, which is wider. The column heading will always be put on one line when this function is used. This menu item is useful after the font has been changed.

## Data Fields

Function dependent. Refer to the specific mail function for a list of data fields.

## Interfaces

Function dependent. Refer to the specific mail function for interface details.

If the Delete Mail menu item is selected, the Dispatch Workstation application will generate an update mail message transaction and send it to the Server for processing. The Server will update the delete flag in the database for this mail message. The delete flag will indicate who has deleted the message; 'T' the 'to user' has deleted the message, 'F' the 'from user' has deleted the message, and 'B' both users have deleted the message.

## Validation

Function dependent. Refer to the specific mail function for validation details.

---

## Data Updates

Function dependent. Refer to the specific mail function for data update details.



Button	Description
Read	This button is enabled when one or more mail messages are selected in the mail list. When pressed, the Read Mail screen is displayed. Refer to <b>Read Mail</b> on page 5-8.
Write	This button is always enabled. When pressed, the Write Mail screen is displayed. Refer to <b>Write Mail</b> on page 5-10.
Delete	This button is enabled when one or more mail messages are selected in the mail list. When pressed, a message box is displayed asking the user to confirm that the selected mail messages should be deleted. If the user selects 'Yes', the mail message is removed from the mail list and a mail message update transaction is sent to the Server for processing.
Resend	This button is enabled when a single mail message is selected in the mail list. When pressed, the exact copy of the original mail message is sent to the Server for delivery. The newly created copy of the message is added to the Mail list.
Edit	This button is enabled when a single mail message is selected in the mail list. When pressed, the original message is displayed in the Write Mail screen. This allows the user to modify the message text, if desired, and reselect the recipients of the message. At this point, the edited message is treated exactly like any other mail message. Refer to <b>Write Mail</b> on page 5-10.
In-Basket/Out-Basket	This button is always enabled. This button is used to toggle between the In-Basket predefined view (mail messages received) and the Out-Basket predefined view (mail messages sent).
Help	This button is enabled at all times. When pressed, the online help facility is invoked.

## Data Fields

### Mail List Columns

Col#	Header	Mapped Data	Comments
0	Time Stamp	MAIL_DTTM(%m/%d/%Y %H:%M:%S)	1 is the highest – Emergency
1	Priority	PRIORITY	
2	From	From	The user name of the sender
3	From ID	FROM_ID	
4	From Crew	FROM_CREW_ID	
5	To	To	The user name of the recipient
6	To ID	TO_ID	
7	To Crew	TO_CREW_ID	
8	Status	READ_STATUS	(U-unread, R-read)

---

Col#	Header	Mapped Data	Comments
9	Message	MESSAGE	

---

## Interfaces

The mail messages are retrieved directly from the database and the mail data is stored internally in the Dispatch Workstation application. When the mail list is displayed, the appropriate records and columns are shown.

When a mail message is deleted, a MailUpdate ICD is sent to the Server for processing. The Server will update the Delete flag in the database for the specified message.

When a mail message is resent, a MailMessage ICD is sent to the Server for processing. The Server will add the mail message to the database and deliver the message to the recipient. If the Server is unable to send the mail message, the sender of the mail will be notified via a system message. Additionally, if the mail message has a priority of emergency and the recipient does not manually acknowledge receipt of the message, the sender of the mail will be notified via a system message.

## Validation

None

## Data Updates

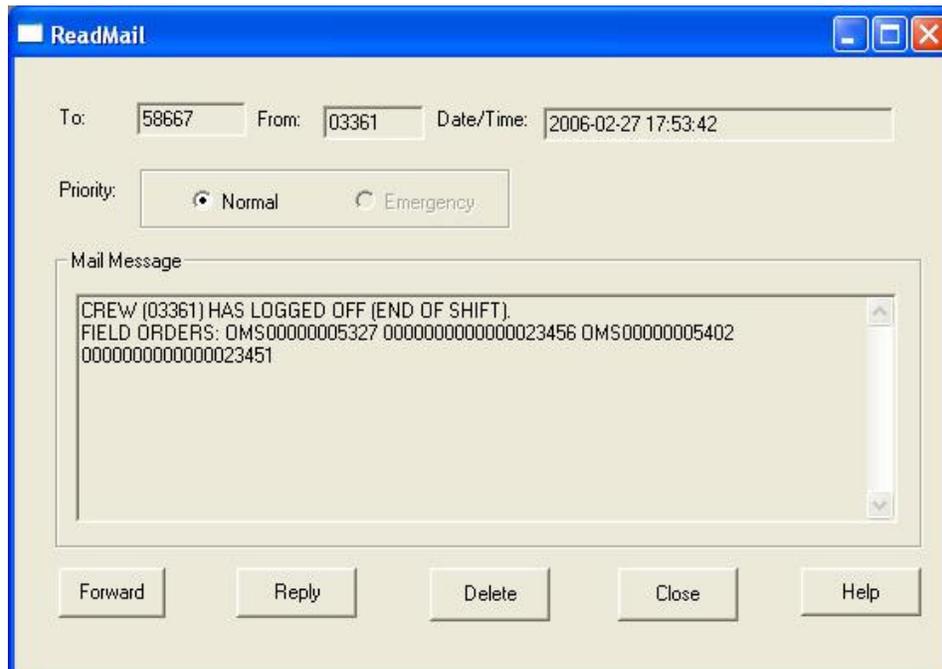
All the data in this list is read-only, so no data is updated. All updates to the mail database tables are performed by the Server application.

## Read Mail

The Read Mail function provides the Dispatch Workstation user the ability to view mail messages.

### Function/Process Description

The Read Mail screen, shown below, is displayed when you select the Read Mail menu item in the Mail subsystem or the Read button on the mail list, or when you double-click on a mail message in the mail list.



All data on this screen is read-only and cannot be modified.

The Read Mail screen has five buttons at the bottom of the screen.

Button	Description
Help	This button is enabled at all times. When pressed, the online help facility is invoked.
Forward	This button allows the user to forward the mail message to another user or users. When pressed, the mail message is displayed in the Forward Mail screen. Refer to <b>Reply Mail</b> on page 5-14.
Reply	This button allows the user to reply to the mail message. When pressed, the mail message is displayed in the Reply Mail screen. Refer to <b>Forward Mail</b> on page 5-16 for more details.
Delete	This button is enabled when one or more mail messages are selected in the mail list. When pressed, a message box is displayed asking the user to confirm that the selected mail messages should be deleted. If the user selects 'Yes', the mail message is removed from the mail list and an update mail message transaction is sent to the Server for processing.
Close	This button is used to close the Read Mail screen. When pressed, the user is returned to the mail list.

---

## Data Fields

Data fields are described below:

Field Name	Description
To	The first and last name of the recipient of the mail message
From	The first and last name of the sender of the mail message
Date/Time	The date/time the mail message was sent
Priority	Indicates the priority of the mail message (e.g. Normal or Emergency).
Mail Message	The mail message text

## Interfaces

The Dispatch Workstation application will read the mail data directly from internal memory. The read status of the mail message is updated to 'Read'. An update mail message transaction indicating the message was read is generated and sent to the Server for processing. The Server will forward the update mail message transaction to the sender of the mail message if the message originated from the Dispatch Workstation application.

## Validation

None

## Data Updates

The Server will update the Read Status of the mail message on the database to read.

## Write Mail

The Write Mail function provides the Dispatch Workstation user the ability to write/send mail messages.

### Function/Process Description

The Compose Mail screen is displayed when you select the Write Mail menu item in the Mail subsystem or the Write button on the mail list.

**Compose Mail**

Date/Time: 05/09/2006 17:23:04 From: 58667

My Dispatcher  All Dispatcher  Selected Users  
 My Supervisor  My Crews  Selected Distribution

Deliver At Logon  Emergency Message

Ames Alan [8858]  
Anderson Scott [98896]  
Andrews Brent [6381]  
Archibald Max [96294]  
Babcock Peter [13033]

Safety Meeting @ 2:00pm on 5/1/2006

Send Clear Cancel Help

You can send messages to specific users or to groups of users.

- To send a mail message to specific users, click the Selected Users radio button, then select one or more users from the Selected Users list box. (See the previous screen for an example.)
- To send a mail message to a group of logged on users, click the Selected Distribution button, then select a distribution option from the list box. (See the following screen for an example.)

- If you select a distribution option based on service areas or divisions, a second list box — either Selected Service Area or Selected Division — is displayed. You must select one service area or division from the second list box.

## Data Fields

Data fields are described below:

Field Name	Description
Date/Time	The date/time the mail message is being generated.
From	The first and last name of the sender of the mail message
My Dispatcher	Indicates the mail is to be sent to my dispatchers (i.e. dispatchers monitoring my area). Always disabled in the Dispatch Workstation application.
All Dispatcher	Indicates the mail is to be sent to all logged-on dispatchers. Always disabled in the Dispatch Workstation application.
Selected Users	The user will select this button if the mail message is to be sent to specific users. When the button is selected, the Selected Users list box will be populated with all users in the Personnel table (DHTPERS).
My Supervisor	Indicates the mail is to be sent to my supervisor. Always disabled in the Dispatch Workstation application.
My Crews	Indicates the mail is to be sent to my crews. The user will select this button if the mail message is to be sent to the crews under their supervision. Always disabled in the Dispatch Workstation application.
Selected Distribution	The user will select this button if the mail message is to be sent to a group of logged on users. When the button is selected, the Selected Distribution list box will be populated with the available distribution groups.

Field Name	Description
Deliver At Logon	Checking this box will cause the mail message to be delivered to the selected users when they log on if they are not currently logged on.
Emergency Message	Checking this box will make the priority of the message an emergency; otherwise, the mail message will have a regular priority.
Selected Users/ Selected Distribution	The contents of this list box will depend on whether the selected users or selected distribution button is selected. If the Selected Users button is selected, this list will contain all users from the personnel database table. If selected distribution is selected, this list box will contain the available distribution groups based on the Distribution Info INI parameters in the DHTDWINI table.
Selected Division/ Service Area	If the Selected Distribution is in 'Selected Division' or 'Selected Service Area', the list box will be enabled; otherwise, it is disabled. If enabled, the list will be populated with the available divisions from the DHTDIV table or the available service areas from the DHTSERV table. If enabled, a selection is required.
Message text	The mail message text. Maximum size is 1024 characters.

## Buttons

The Write Mail screen has four buttons at the bottom of the screen.

Button	Description
Send	This button will cause the composed mail message to be sent to the recipient(s). The application will generate a mail message transaction and send it to the Server for processing. The new mail message will be added to the user's mail list. The message can be displayed in the Out-basket pre-defined view.
Clear	This button will cause all selections and data on the screen to be cleared.
Cancel	This button is used to cancel the Write Mail function. When pressed, the user is returned to the mail list.
Help	This button is enabled at all times. When pressed, the online help facility is invoked.

## Interfaces

A mail message transaction is generated and sent to the Server for processing for each selected user in the selected user list. If selected distribution is selected, one mail message transaction is sent to the Server and the Server will create a mail message for each logged on user in the distribution group. The Server will add the new mail message to the database and forward the mail message transaction to the recipient(s) of the mail message if they are currently logged on.

## Validation

The user must enter message text. If Selected Users is selected, the user must select at least one name from the Selected Users list. If Selected Distribution is selected, the user must select one distribution group from the Selected distribution list. If Selected Division/Service Area is enabled, user must select one entry from the list.

## Data Updates

The Server will add the new mail message(s) to the database.

## Reply Mail

The Reply Mail function provides the Dispatch Workstation user the ability to reply to a mail message that they have received.

### Function/Process Description

The Reply Mail screen is displayed when you select the Reply button on the Read Mail screen.

Use the edit box in the bottom area of the screen to compose your reply, then click the Send button to send the message.

### Data Fields

Data fields are described below:

Field Name	Description
Date/Time	The date/time the mail message is being generated.
From	The first and last name of the sender of the mail message
My Dispatcher	Disabled. This button cannot be selected. Reply mail only applies to an individual user.
All Dispatcher	Disabled. This button cannot be selected. Reply mail only applies to an individual user.
Selected Users	Disabled. This button is selected and cannot be changed.
My Supervisor	Disabled. This button cannot be selected. Reply mail only applies to an individual user
My Crews	Disabled. This button cannot be selected. Reply mail only applies to an individual user

Field Name	Description
Selected Distribution	Disabled. This button cannot be selected. Reply mail only applies to an individual user
Deliver At Logon	Checking this box will cause the mail message to be delivered to the selected users when they log on if they are not currently logged on.
Emergency Message	Checking this box will make the priority of the message an emergency; otherwise, the mail message will have a regular priority.
Selected Users/ Selected Distribution	Disabled. This list box contains all users from the personnel database table with the recipient of the mail already selected. The selection cannot be modified.
Message text	The original mail message text is displayed. The user can modify this text. Maximum text is 1024 characters.

## Buttons

The Reply Mail screen has four buttons at the bottom of the screen.

Button	Description
Send	This button will cause the composed mail message to be sent to the recipient. The application will generate a mail message transaction and send it to the Server for processing. The new mail message will be added to the user's mail list. The message can be displayed in the Out-basket pre-defined view.
Clear	This button will cause the message text on the screen to be cleared.
Cancel	This button is used to cancel the Reply Mail function. When pressed, the user is returned to the Read Mail screen.
Help	This button is enabled at all times. When pressed, the online help facility is invoked.

## Interfaces

A mail message transaction is generated and sent to the Server for processing. The Server will add the new mail message to the database and forward the mail message transaction to the recipient of the mail message if they are currently logged on.

## Validation

The user must enter message text

## Data Updates

The Server will add the new mail message to the database.

## Forward Mail

The Forward Mail function provides the Dispatch Workstation user the ability to forward mail messages to other users.

### Function/Process Description

The Forward Mail screen is displayed when you select the Forward button on the Read Mail screen.

Use the Selected Users and Selected Distribution buttons to specify recipients. (These options also appear on the Compose Mail screen, described earlier.) Use the edit box at the bottom area of the screen to compose your message, then click Send.

### Data Fields

Data fields are described below:

Field Name	Description
Date/Time	The date/time the mail message is being generated.
From	The first and last name of the sender of the mail message
My Dispatcher	Indicates the mail is to be sent to my dispatchers (i.e. dispatchers monitoring my area). Always disabled in the Dispatch Workstation application.
All Dispatcher	Indicates the mail is to be sent to all logged-on dispatchers. Always disabled in the Dispatch Workstation application.

Field Name	Description
Selected Users	The user will select this button if the mail message is to be sent to specific users. When the button is selected, the Selected Users list box will be populated with all users in the Personnel table (DHTPERS).
My Supervisor	Indicates the mail is to be sent to my supervisor. Always disabled in the Dispatch Workstation application.
My Crews	Indicates the mail is to be sent to my crews. The user will select this button if the mail message is to be sent to the crews under their supervision. Always disabled in the Dispatch Workstation application.
Selected Distribution	The user will select this button if the mail message is to be sent to a group of logged on users. When the button is selected, the Selected Distribution list box will be populated with the available distribution groups.
Deliver At Logon	Checking this box will cause the mail message to be delivered to the selected users when they log on if they are not currently logged on.
Emergency Message	Checking this box will make the priority of the message an emergency; otherwise, the mail message will have a regular priority.
Selected Users/ Selected Distribution	The contents of this list box will depend on whether the selected users or selected distribution button is selected. If the Selected Users button is selected, this list will contain all users from the personnel database table. If selected distribution is selected, this list box will contain the available distribution groups (All dispatchers, All Service representatives, and All Service supervisors).
Selected Division/ Service Area	If the Selected Distribution is in 'Selected Division' or 'Selected Service Area', the list box will be enabled; otherwise, it is disabled. If enabled, the list will be populated with the available divisions from the DHTDIV table or the available service areas from the DHTSERV table. If enabled, a selection is required.
Message text	The original mail message text is displayed. The user can modify this text. Maximum text is 1024 characters.

## Buttons

The Write Mail screen has four buttons at the bottom of the screen.

Button	Description
Send	This button will cause the composed mail message to be sent to the recipient(s). The application will generate a mail message transaction and send it to the Server for processing. The new mail message will be added to the user's mail list. The message can be displayed in the Out-basket pre-defined view.
Clear	This button will cause the message text on the screen to be cleared.
Cancel	This button is used to cancel the Forward Mail function. When pressed, the user is returned to the Read Mail screen.
Help	This button is enabled at all times. When pressed, the online help facility is invoked.

## Interfaces

A mail message transaction is generated and sent to the Server for processing for each selected user in the selected user list. If Selected Distribution is selected, one mail message transaction is sent to the Server and the Server will create a mail message for each logged on user in the distribution group. The Server will add the new mail message to the database and forward the mail message transaction to the recipient(s) of the mail message if they are currently logged on.

## Validation

The user must enter message text. If Selected Users is selected, the user must select at least one name from the Selected Users list. If Selected Distribution is selected, the user must select one distribution group from the Selected Distribution list. If Selected Division/Service Area is enabled, user must select one entry from the list.

## Data Updates

The Server will add the new mail message(s) to the database.

# Chapter 6

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## System Messages Subsystem

The System Messages subsystem is used for monitoring system messages. This chapter includes the following topics:

- **System Messages Menus**
- **System Messages List**
- **System Messages**

### System Messages Menus

#### View Menu

The **V**iew menu contains sub-menu items that are specific to the System Messages subsystem. The View sub-menu items are always enabled when the System Messages subsystem has focus. The View menu contains the following sub-menu items:

#### Message Type

This menu item contains a sub-menu of available message types that can be displayed in the list. The sub-menu items are **Error**, **Warning**, **Info**, and **All**.

#### System Id

This menu item contains a sub-menu of available system ids that can send messages that are displayed in the list. The sub-menu items are **Server**, **Router**, **Dispatch Workstation**, and **All**.

#### Font

This menu item contains a sub-menu of available font settings. The sub-menu items are **S**mall Font, **M**edium Font, and **L**arge Font. A checkmark will appear next to the current font selection. Clicking on another font selection will automatically redisplay the data in the system messages list using the selected font.

#### Detail

This menu item is used to display the selected system message in the Detail screen. The message can also be displayed in the Detail screen by double clicking on the desired message.

#### Save Options

This menu item is used to save all the currently selected system messages subsystem user options to the database. The System Messages subsystem options selected (e.g. font) are stored in the database by logged on user's id.

The message must be viewed on the Detail screen before it can be deleted. The messages will remain in the system messages list until they are deleted or the Dispatch Workstation application is restarted.

## System Messages List

The main element of the System Messages subsystem is the System Messages List. The System Messages List is automatically displayed when the system messages subsystem is started.



Key	System ID	Type	Time	Message
00...	SERVER	INFO	2008/02/26 15:29:15	Server and MF Router are connected.
00...	SERVER	ERROR	2008/02/26 15:29:48	2007/11/13 17:30:00   RTS:Invalid shift for FO 00008964
00...	MAINFRAME	INFO	2008/02/26 15:34:14	Router and RTS connected.

The System Message Detail screen is shown below. For a complete list of system messages, see Appendix B.



System ID: SERVER

Type: ERROR

Time: 2006/05/09 17:46:42

Message: Server and Rfttransport are NOT connected. Please notify help desk.

Close Delete Help

## Data Fields

Data fields are described below:

Field Name	Description
System ID	The application that generated the system message. The system ids are Server, Router, and Dispatch Workstation.
Type	The type of system message. The types are error, warning, and info.
Time	The date/time the system message was generated.
Message	The text of the system message.

## Interfaces

The system messages are either generated internally by the Dispatch Workstation application or they are received from the Server application. There are no other external interfaces for this function.

## Validation

None

## Data Updates

There are no data updates. The System messages are kept in memory only.

## System Messages

All messages, including system messages, alarms, and notifications, are listed and described in Appendix B. The list of messages below provides links to the messages definitions contained in the appendix.

**Address Match**

**Bond Violation**

**Broken Bond**

**Cancel Order for Non-Wireless Crew**

**Change Auto Dispatch**

**Connection Status**

**Corrupt Order Completion Transaction**

**Crew/User Attempting to Complete Orders in Error**

**Crew Attempting to Process Orders in Error**

**Crews Available for Assignment**

**Crew Clear**

**Emergency Order Received**

**Emergency Order Acknowledged**

**Emergency Order Not Acknowledged**

**End of Day Process Cancelled**

**End of Day Process Initiation**

**Failed to Process Field Order Update – Crew Onsite**

**Failed to Process Field Order from Host**

**Field Order With Invalid Crew**

**Order has Been Rescheduled**

**Order Updated from the Mainframe**

**Rejected Transaction**

**Request for Emergency Assistance**

**Reschedule Order for Non-Wireless Crew**

**Router Connected/Disconnected to External Application**

**Router Listener Connected/Disconnected**

**RTS Pass-Through Alert (if applicable)**

**Stop Disabled**

**Stop Late**

**Stop Overdue**

**Supervisor Attempting to Reassign Completed Order**

**Taking Too Long**

**Timed Event**

**Unable to Deliver Mail**

**Unable to Dispatch Field Order**

**Unable to Process Non-MDT Logon**

**Unable to Process RF Logon**

**Uncovered Service Areas**

**Update to Order Assigned to Logged-Out Crew**



# Chapter 7

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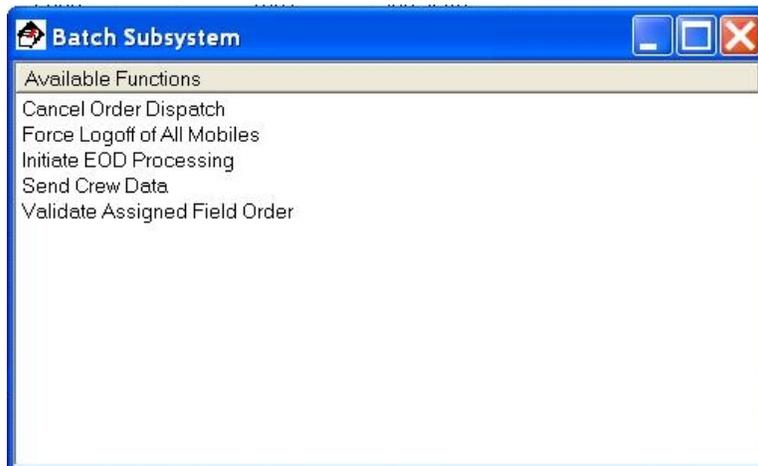
## Batch Processing Subsystem

This chapter describes how to perform the following batch-processing functions:

- **End-of-Day Processing**
- **Initiate End Of Day Processing (Manual)**
- **Cancel Order Dispatch**
- **Force Logoff of All Mobiles**
- **Send Crew Data**
- **Validate Assigned Field Orders**

### Batch Subsystem Available Functions

When you select Batch Processing from the Subsystems menu, the following dialog is displayed.



The batch processing options are covered in the sections that follow.

## End-of-Day Processing

End-of-day processing can be performed in two different ways:

- **Unattended** – In Unattended mode, end-of-day processing is performed automatically at the time defined in the TimeOfUnattendedEOD parameter in the DHTSVINI table. Unattended mode is enabled using the AllowUnattendedEOD parameter in the DHTSVINI table. If AllowUnattendedEOD is set to TRUE, EOD processing will start automatically at the time specified in TimeOfUnattendedEOD; otherwise, EOD processing must be initiated manually using the Initiate End of Day Processing option on the Batch Subsystem dialog.

The TimeOfUnattendedEOD parameter defines the EOD process start time in military format HH:MM. EOD start-up checking is done every five minutes, so the actual time started may not be exact, but will be within five minutes of the defined start time.

If the AllowUnattendedEOD parameter is set to FALSE, the TimeOfUnattendedEOD is ignored.

- **Manual** – In manual mode, end-of-day processing is initiated manually by selecting the Initiate EOD Processing option from the Batch Subsystem screen (see the previous figure).

**Note:** Unattended and Manual modes are mutually exclusive. If Unattended mode is enabled for your system, you will not be able to initiate EOD processing manually. The reverse is also true; if Unattended mode is disabled, automatic EOD processing will not occur.

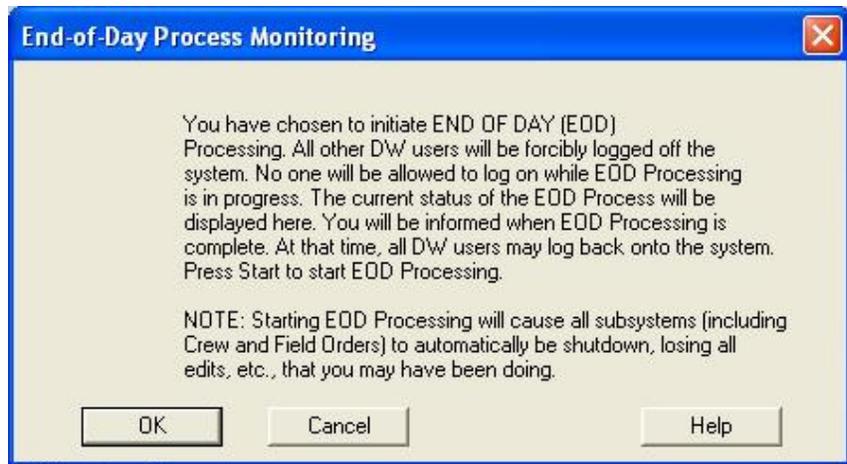
Once initiated, the EOD process operates the same in unattended and manual modes.

## Initiate End Of Day Processing (Manual)

The Initiate End of Day Processing function provides the Dispatch Workstation User the capability of starting the End of Day processing manually.

### Function/Process Description

When you select the Initiate EOD Processing option from the Batch Subsystem screen, the following screen is displayed:



Click OK to begin. A confirmation screen is displayed. Click Yes to confirm. An End-of-Day Monitoring screen is displayed, indicating when the process will begin:



The end of day process starts after a configurable number of minutes. The number of minutes is specified using the number of minutes to wait before starting the end of day process (Time2WaitB4StartingEOD) INI parameter. System messages are sent to all logged on Dispatch Workstation users stating that End of Day will start in x minutes. A system message is sent out every minute until end of day starts. The initiating user can cancel the End of Day processing at any time before it starts. The initiating user will receive status transactions throughout the End of day process.

**Note:** If UnattendedEOD mode is enabled (UnattendedEOD in DHTSVINI is set to TRUE), the following message will appear if you attempt to initiate EOD Processing manually:

Manual EOD is not valid.  
EOD process will start at the Server configured Time: [HH:MM]

where [HH:MM] is the value specified in the TimeOfUnattendedEOD parameter in the DHTSVINI table.

## Data Fields

None

## Interfaces

When EOD is initiated, the Dispatch Workstation application will generate a transaction and send it to the Server for processing. The Server will notify all logged on Dispatch Workstation users that EOD will start in x minutes. These messages will be displayed in the Dispatch Workstation system messages subsystem. No Oracle Utilities Mobile Workforce Management users (Dispatch Workstation or Mobile Workstation) can logon while EOD is running. The Server will send a transaction to the initiating Dispatch Workstation user periodically to report the current status of the EOD process.

The EOD process steps are:

- Notify the Router that the End of Day process has started.
- Processing of transactions in the Server application except for the logon transactions is suspended.
- New Server log files are started and the old Server log files are archived. The files will be renamed to `yyyymmdd_hhmmss_filename.log`.
- A force logoff transaction will be sent to all Dispatch Workstation users except the user that initiated EOD processing
- If the generate end of day reports (GenerateEodReports) parameter is 'TRUE', EOD reports will be generated. The reports are written to files with the name `SvEodReportxx.yyyyymmdd_hhmmss`.
- Return routine orders to the routine database tables. Any routine orders that have been moved to the active database tables, but have not been dispatched, will be moved back to the routine database tables.
- Call the CustomFieldOrderEODProcess plug-in to perform any customized end of day processing.
- Archive field orders
  - Call the PreArchiveFieldOrdersEOD plug-in to perform any customized processing prior to archiving field orders.
  - Call UnassignAllIncompleteOrders to send incompleteness data to the appropriate external application. This method is only called if the EODUnassignIncompleteOrders INI parameter is 'TRUE'.
  - Move completed field orders from active field order tables to history tables. The default SQL where clause will move all orders with a completion status of 'C' and a completion time that is not NULL. The SQL where clause can be overridden using the EODCompleteWhereClause INI parameter.
  - Delete orders from history tables if the number of days to retain archived orders (RetainArchivedOrders) is greater than 0. Orders that have been archived for more than RetainArchivedOrders days will be deleted.
- Archive mail

- Move all read mail messages from the active mail table to the history mail table.
- Move all unread mail that is number of days to retain miscellaneous records (RetainMiscRecords) days old from the active mail table to the history mail table.
- Delete mail from the history table if the number of day to retain archived mail (RetainArchivedMail) parameter is greater than 0. Mail that has been archived for more than RetainArchivedMail days will be deleted.
- Miscellaneous database cleanup
  - Move active crew statistic records to the historical crew statistic table.
  - Reset crew statistics. Create new active crew statistic record for each crew based on the current field orders.
  - Delete crew break records more than RetainMiscRecords days old
  - Delete historical crew statistic records more than RetainMiscRecords days old
  - Reset crew records where their current field order was archived.
  - Delete historical crew timesheet records more than RetainMiscRecords days old
  - Delete emergency request records more than RetainMiscRecords days old
  - Delete AVL Report and AVL truck location records more than number of days to retain AVL report records (RetainAvlReportRecords) days old
  - Delete personnel records that have been inactive for more than number of days to retain inactive personnel records (RetainArchivedPers) days.
- Send request for current time to the Router application. This request can be sent to an external application to ensure the server time is correct.
- Resume Server processing
- Create and execute Post EOD batch file (EodProcessBatchCommandFile.bat) to clean up archived and old EOD report files.
  - Delete archived trace logs more than number of days to retain archived trace logs (RetainArchivedTraceLogs) days old
  - Delete archived audit logs more than number of days to retain archived audit logs (RetainArchivedAuditLogs) days old
  - Delete archived error logs more than number of days to retain archived error logs (RetainArchivedErrorLogs) days old
  - Delete End of Day report files more than number of days to retain end of day reports (RetainEodReports) days old.

In the current base product, no database backups are made nor are any database tables are reorganized. It is the responsibility of the customer's DBA to perform these functions.

## Validation

None

## Data Updates

None

## Cancel Order Dispatch

The Cancel Order Dispatch function provides the Dispatch Workstation User the capability of cancel the dispatch process for a field order.

### Function/Process Description

The Cancel Order Dispatch screen is displayed when you select the Cancel Order Dispatch option from the Batch Subsystem screen.

**Note:** A user usually cancels the dispatch of an order when the Server is trying to dispatch an order, but is unable to reach the mobile. Since you cannot perform any other function on an order while the Server is trying to dispatch the order, you must either wait until the dispatch times out or cancel the dispatch process. Canceling the order dispatch resets the status to 'Assigned'. This allows you reassign the order to another crew or try to dispatch a different order.

Enter the number of the order they wish to cancel from dispatch on the screen and presses the Ok button. The status of the field order must be 'Trying to Dispatch'.

If the Server is sending blocks of Order Data transaction in one RF transaction (OrdersPerDispatch INI parameter greater than 1), the dispatching of all orders in the block will cancelled.

### Data Fields

Data fields are described below:

Field Name	Description
Field Order Number	The number of the order that should be cancelled from the dispatch process.

### Interfaces

When Cancel Order Dispatch is performed, the Dispatch Workstation application will generate a cancel the dispatch of an order transaction and send it to the Server for processing. The Server will generate and send a status update after the order dispatch has been cancelled.

### Validation

The field order entered in the Cancel Order Dispatch screen must have a status of 'Trying to Dispatch'.

## Data Updates

The Server will update the status of the Field Order to 'Assigned' when the order dispatch is cancelled.

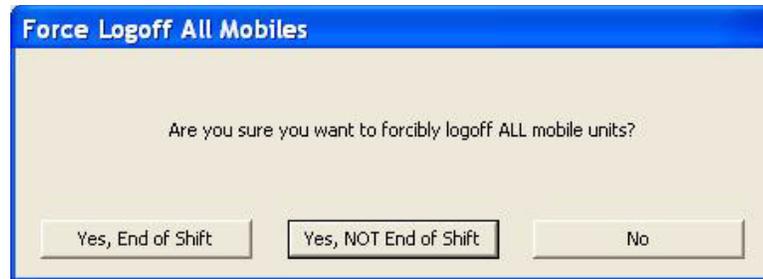
If the Server is sending blocks of Order Data transaction in one RF transaction (OrdersPerDispatch INI parameter greater than 1), the Server will update the status of all field orders in the block to 'Assigned'.

## Force Logoff of All Mobiles

The Force Logoff All Mobiles function allows the Dispatch Workstation User to forcibly logoff all crews that are currently logged on. Normally, the user would force logoff crews one at a time using the Crew Status subsystem. However, if needed, this function will forcibly logoff all logged on crews, excluding Non-MDT crews.

### Function/Process Description

To access this function, choose the Force Logoff of All Mobiles option from the Batch Subsystem screen. The following screen is displayed.



To log off all logged-on crews, click either Yes, End of Shift or Yes, NOT End of Shift.

### Data Fields

None

### Interfaces

When Force Logoff All Mobiles is performed, the Dispatch Workstation application will generate a Force Logoff All transaction and send it to the Server for processing. If the user selects “Yes, End of Shift”, the transaction will have the End of Shift flag set to TRUE. If the user selects “No, NOT End of Shift”, the transaction will have the End of Shift flag set to FALSE. The Server will generate a ForceLogoffCrew and RfLogoff for each logged on mobile crew (excluding Non-MDT crews). The Server processes the RfLogoff and the ForceLogoffCrew is sent to each logged on mobile. If crews are being logged off end of shift, the Server will change the status of the crew’s current shift to COMPLETE and unassign any un-worked orders assigned to the crew’s current shift.

### Validation

None.

### Data Updates

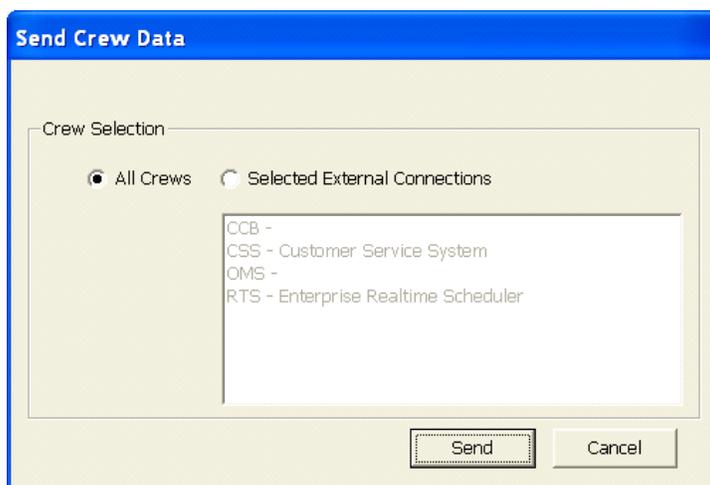
None.

## Send Crew Data

The Send Crew Data function provides the Dispatch Workstation User the capability of sending current crew information to external systems.

### Function/Process Description

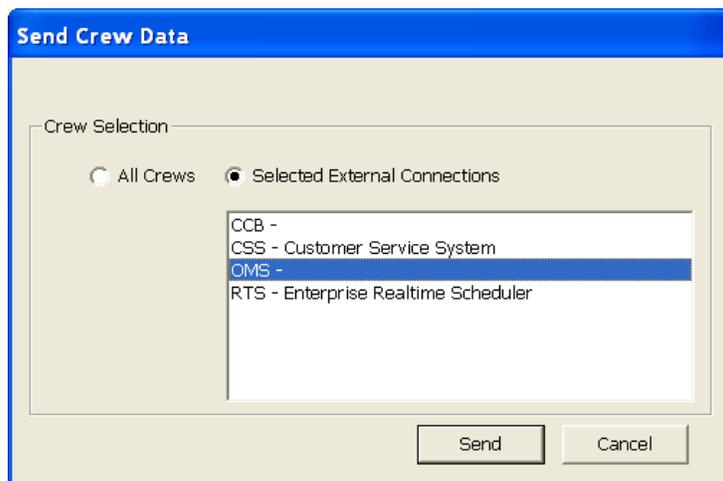
To access this function, choose the Force Logoff of All Mobiles option from the Batch Subsystem screen. The Send Crew Data screen is displayed.



To send data for all crews, select All Crews and click Send.

To send crew updates for selected connections:

- Select “Selected External Connections.”



- Select one or more external connections from the list box.

**Note:** The specific external connections associated with a crew are defined during crew setup using the Admin Tool.

- Click Send. The system will send crew updates for only those crews that are associated with the selected external connections.

## Data Fields

None

## Interfaces

When Send Crew Data is initiated, the Dispatch Workstation application will generate a transaction and send it to the Server for processing. The Server will retrieve the current crew information for crews who match the selected external connection type(s) and send crew updates for those crews to the external system(s).

## Validation

None

## Data Updates

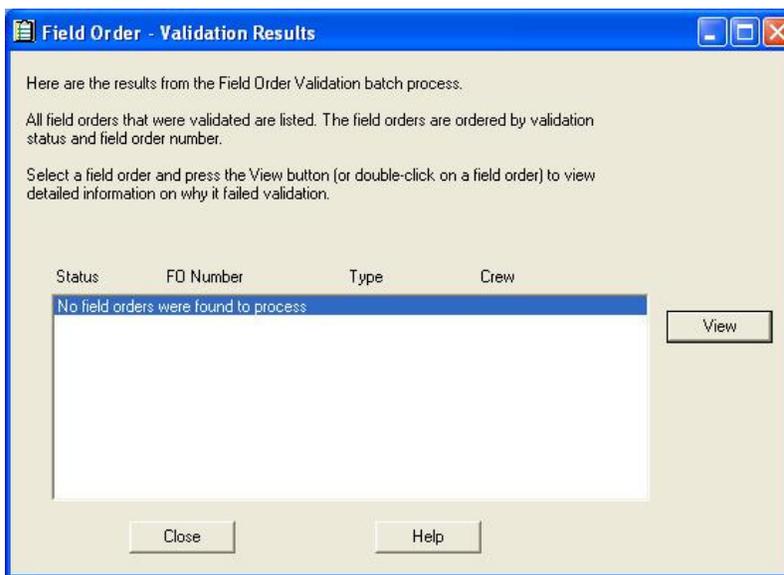
None

## Validate Assigned Field Orders

The Validate Assigned Field Orders function provides the Dispatch Workstation user the capability to validate that the crews assigned to field orders have the necessary skills/capabilities to work the orders. This process is typically used by customers who do not have the Oracle Utilities Mobile Workforce Management scheduling module or use another external scheduling system normally use this process. This process uses the skills and capabilities required for each order type and compares them to the skills/capabilities of the assigned crews.

### Function/Process Description

To access this function, choose the Validate Assigned Field Orders option from the Batch Subsystem screen. The following screen is displayed.



The Field Order Validation Results screen displays the status of each field order validated. If the status is Ok, the assigned crew has the required skills/capabilities to work the order.

If the status is Failed, the assigned crew does not have the required skills/capabilities to work the order.

To view the reason the validation failed, highlight the order and press the View button or double-click an order in the list. The missing requirements are displayed.

### Data Fields

Data fields are described below:

Field Name	Description
List of field orders	
Status	Status of the validation (OK or Failed)
FO Number	The Oracle Utilities Mobile Workforce Management field order number
Type	The type of order
Crew	The is of the assigned crew

## Interfaces

All processing takes place in the Dispatch Workstation application. There is no external interface.

## Validation

The process will validate that the assigned crew possess the skills/capabilities required to work that type of order. If they do, 'OK' will be displayed in the status column; otherwise, it will display 'Failed'.

## Data Updates

None

# Chapter 8

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## Dispatcher Functions Subsystem

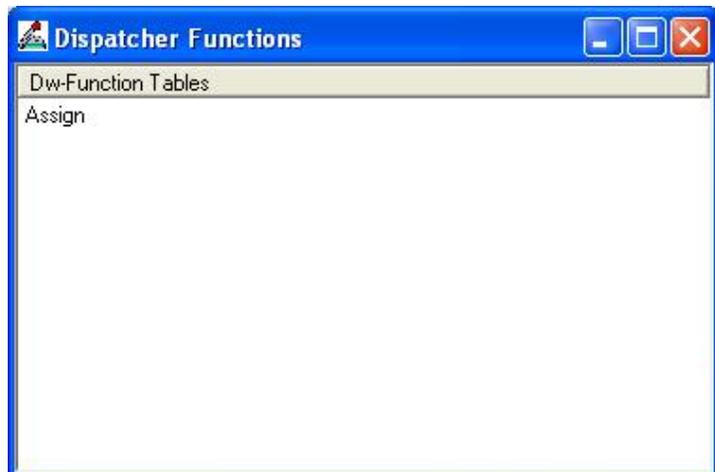
This chapter covers the following topics:

- **Dispatcher Functions Screen**
- **Dispatch Area Assignment**

### Dispatcher Functions Screen

The Dispatcher Functions subsystem provides the Dispatch Workstation user the capability of modifying their dispatch area assignment.

When the Dispatcher Functions subsystem is started, the Dispatcher Functions selection screen is displayed for the user to select the function desired.



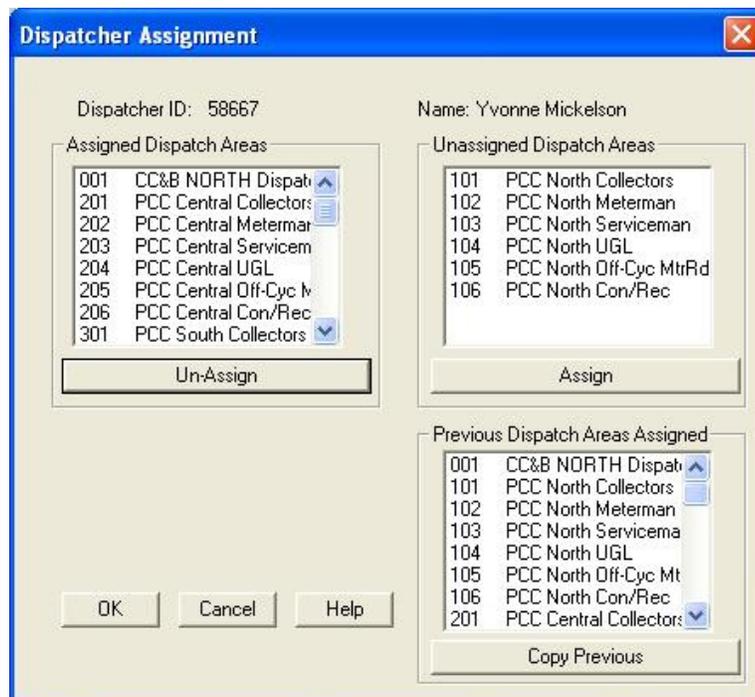
To start a function, double-click the function name. Currently, there is only one Dispatcher Function in the base system.

## Dispatch Area Assignment

This Dispatch Area Assignment function enables the Dispatcher Workstation user to re-select the dispatch areas they are monitoring during this Dispatcher Workstation logon session.

### Function/Process Description

When you select the Assign function from the Dispatcher Functions screen, a message box is displayed on the user's desktop: 'Selecting this option will cause the Crew and Field Order subsystems to be shutdown and restarted. Do you wish to continue?' If you select 'Yes', the Dispatch Area Assignment screen is displayed.



The Assigned list box lists the dispatch areas that the User is currently monitoring.

The Unassigned list box lists the dispatch areas that the User is not currently monitoring.

The Previous Assigned list box lists the Dispatcher areas the User was monitoring during the last Dispatcher Workstation session.

To monitor the same areas as you monitored during your last session, select the 'Copy Previous' button. The previous dispatch areas are automatically loaded into the Assigned list box.

To select areas for monitoring, select one or more areas in the Unassigned list box and press the Assign button to load the areas into the Assigned list box.

To remove areas currently being monitored, select one or more areas in the Assigned list box and click the Unassign button. The selected areas are moved from the Assigned list box back to the Unassigned list box.

Click OK to change the assigned dispatch areas.

**Note:** The Crew and Field Order subsystems will not be shutdown until you click OK to change the assigned dispatch areas. At that time, the Field Order subsystem and the Crew Status subsystem are automatically shutdown. The

new field order and crew data selected based on the new assigned dispatch areas and the Field Order and Crew subsystems are automatically restarted. The Order Download screen is displayed to show the progress of retrieving the new field orders.

## Data Fields

Data fields are described below:

Field Name	Description
Dispatcher ID	The Id of the user logged on
Name	The name of the user logged on.
Assigned Dispatch Areas	The list of dispatch areas currently assigned to the user. When the OK button is pressed, this list will contain the dispatch areas that will be assigned to the user.
Unassigned Dispatch Areas	The list of dispatch areas that are not currently assigned or will not be assigned to the user.
Previous Dispatch Areas Assigned	The list of dispatch areas the user was assigned during the last Dispatch Workstation session.

## Interfaces

The Dispatch Workstation application updates the database directly. There is no interface to another external process.

## Validation

The user must assign one or more areas to monitor before the Ok button can be pressed. If the user cancels this screen, no changes will be made to the assigned dispatch areas.

## Data Updates

A record will be inserted into the Personnel to Dispatch Area relationship database table for each area that is assigned.



# Chapter 9

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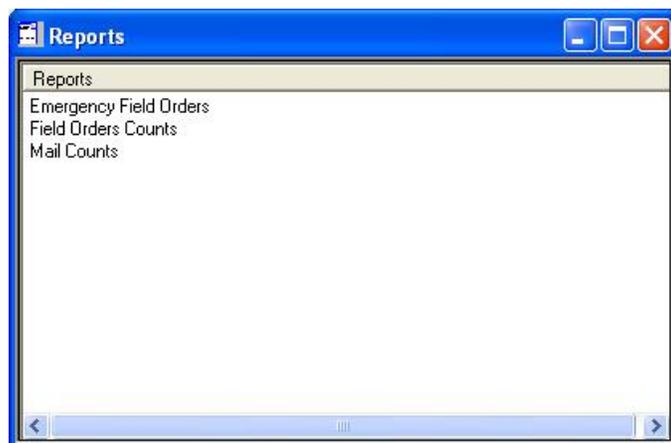
## Reports Subsystem

The Reports subsystem provides the Dispatch Workstation user the capability of running online reports. This chapter covers the following reports:

- **Emergency Field Order Report**
- **Field Order Counts Report**
- **Mail Counts Report**

### Reports List

When the Reports subsystem is started, the Reports selection screen is displayed, allowing you to select which report to run.



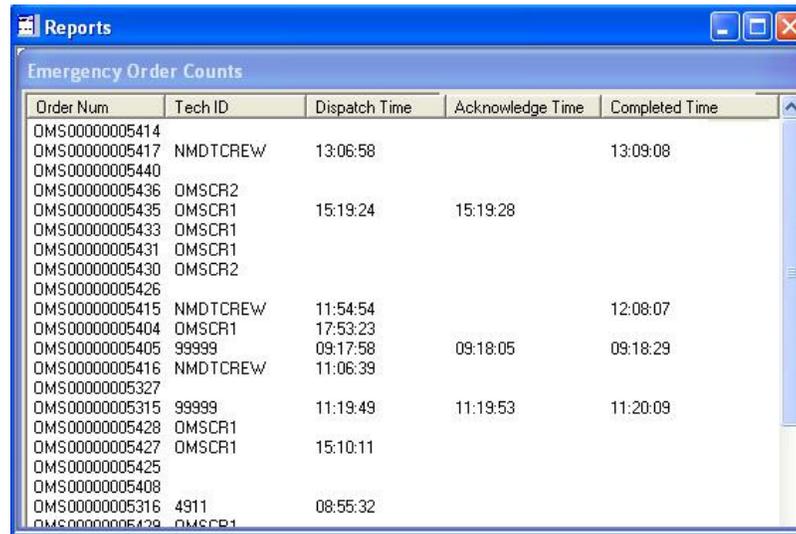
To select a report, double-click the desired report name. Reports are described in the sections that follow.

## Emergency Field Order Report

The Emergency Field Order Report provides the Dispatch Workstation user the capability to view the status of the emergency orders in the Oracle Utilities Mobile Workforce Management system.

### Function/Process Description

To display this report, select Emergency Field Orders from the Reports selection screen.



Order Num	Tech ID	Dispatch Time	Acknowledge Time	Completed Time
OMS00000005414				
OMS00000005417	NMDTCREW	13:06:58		13:09:08
OMS00000005440				
OMS00000005436	OMSCR2			
OMS00000005435	OMSCR1	15:19:24	15:19:28	
OMS00000005433	OMSCR1			
OMS00000005431	OMSCR1			
OMS00000005430	OMSCR2			
OMS00000005426				
OMS00000005415	NMDTCREW	11:54:54		12:08:07
OMS00000005404	OMSCR1	17:53:23		
OMS00000005405	99999	09:17:58	09:18:05	09:18:29
OMS00000005416	NMDTCREW	11:06:39		
OMS00000005327				
OMS00000005315	99999	11:19:49	11:19:53	11:20:09
OMS00000005428	OMSCR1			
OMS00000005427	OMSCR1	15:10:11		
OMS00000005425				
OMS00000005408				
OMS00000005316	4911	08:55:32		
OMS00000005429	OMSCR1			

All data on this screen are read-only.

### Data Fields

Data fields are described below:

Field Name	Description
Emergency order list	List of the emergency orders in the Oracle Utilities Mobile Workforce Management system. The list displays the order number, the assigned crew, the dispatch time, acknowledged time, and the completion time.

### Interfaces

The Dispatch Workstation application reads the data directly from the database. There are no external interfaces for this report.

### Validation

None

### Data Updates

None

## Field Order Counts Report

The Field Order Counts Report provides the Dispatch Workstation user the capability to view a snapshot summary of all field orders in the Oracle Utilities Mobile Workforce Management system.

### Function/Process Description

To display this report, select Field Order Counts from the Reports selection screen.

	Tot. Orders	Reg. Orders	Emer. orders
Scheduled Orders	53	15	38
External Same Day Orders	0	0	0
MWM Same Day Orders	0	0	0
-----			
Unassigned Orders	1	1	0
Assigned Orders	47	9	38
Allocated Orders	5	0	5
Dispatched Orders	0	0	0
Completed Orders	0	0	0
Voided Orders	0	0	0
Worked Orders	0	0	0
-----			
Total Orders for MWM	53	15	38

Close Help

The counts are broken into several categories.

- The first section counts the orders based on where the order was created and when it was created. A Same Day Order is used to make the determination.
- The second section counts the orders based on their current status. The field order tracking and completion statuses are used to make the determination.
- The third section counts the total orders on the Oracle Utilities Mobile Workforce Management system.

Each of the sections breaks down the counts by priority.

## Data Fields

Data fields are described below:

<b>Field Name</b>	<b>Description</b>
Scheduled Orders	The number of orders in the Oracle Utilities Mobile Workforce Management system that were created by an external application and scheduled for a future date. The counts are broken into Total orders, Regular orders, and Emergency orders.
External Same Day Orders	The number of orders in the Oracle Utilities Mobile Workforce Management system that were created by an external application and scheduled for the same day. The counts are broken into Total orders, Regular orders, and Emergency orders.
MWM Same Day Orders	The number of orders created in the Oracle Utilities Mobile Workforce Management system. The counts are broken into Total orders, Regular orders, and Emergency orders.
Unassigned Orders	The number of orders in the Oracle Utilities Mobile Workforce Management system that are unassigned. The counts are broken into Total orders, Regular orders, and Emergency orders.
Assigned Orders	The number of orders in the Oracle Utilities Mobile Workforce Management system that are assigned. The counts are broken into Total orders, Regular orders, and Emergency orders.
Allocated Orders	The number of orders in the Oracle Utilities Mobile Workforce Management system that are allocated. The counts are broken into Total orders, Regular orders, and Emergency orders.
Dispatched Orders	The number of orders in the Oracle Utilities Mobile Workforce Management system that are dispatched. This includes orders with a tracking status of ready to dispatch, trying to dispatch, dispatched, acknowledged, enroute, and onsite. The counts are broken into Total orders, Regular orders, and Emergency orders.
Completed Orders	The number of orders in the Oracle Utilities Mobile Workforce Management system that are completed. The counts are broken into Total orders, Regular orders, and Emergency orders.
Voided Orders	This count is a further breakdown of completed orders. The number of orders in the Oracle Utilities Mobile Workforce Management system that are voided. The counts are broken into Total orders, Regular orders, and Emergency orders.
Worked Orders	This count is a further breakdown of completed orders. The number of orders in the Oracle Utilities Mobile Workforce Management system that are worked. The counts are broken into Total orders, Regular orders, and Emergency orders.
Total Orders on MWM	The total number of orders in the Oracle Utilities Mobile Workforce Management system. The counts are broken into Total orders, Regular orders, and Emergency orders.

## Interfaces

The Dispatch Workstation application reads the data directly from the database. There are no external interfaces for this report.

**Validation**

None

**Data Updates**

None

## Mail Counts Report

The Mail Counts Report provides the Dispatch Workstation user the capability to view a snapshot summary of all mail messages in the Oracle Utilities Mobile Workforce Management system.

### Function/Process Description

To display this report, select Mail Counts from the Reports selection screen.

	Regular	Call First	Emergency
Total Mail Messages	0	0	0
-----			
Total Read Mails	0	0	0
To Mobile:	0	0	0
To_Dispatcher:	0	0	0
-----			
Total Unread Mails	0	0	0
To Mobile:	0	0	0
To_Dispatcher:	0	0	0

The counts are broken into several categories.

- The first section counts the total mail messages on the Oracle Utilities Mobile Workforce Management system.
- The second section counts the read mail messages by recipient application.
- The third section counts the unread mail messages by recipient application.

Each of the sections breaks down the counts by priority.

### Data Fields

Data fields are described below:

Field Name	Description
Total Mail Messages	The total number of mail messages in the Oracle Utilities Mobile Workforce Management system. The counts are broken into Regular, Call First, and Emergency.
Total Read Mail To Mobile	The number of read mail messages in the Oracle Utilities Mobile Workforce Management system sent to the Mobile Workstation application. The counts are broken into Regular, Call First, and Emergency.

---

Field Name	Description
Total Read Mail To Dispatcher	The number of read mail messages in the Oracle Utilities Mobile Workforce Management system sent to the Dispatch Workstation application. The counts are broken into Regular, Call First, and Emergency.
Total Unread Mail To Mobile	The number of unread mail messages in the Oracle Utilities Mobile Workforce Management system sent to the Mobile Workstation application. The counts are broken into Regular, Call First, and Emergency.
Total Unread Mail To Dispatcher	The number of unread mail messages in the Oracle Utilities Mobile Workforce Management system sent to the Dispatch Workstation application. The counts are broken into Regular, Call First, and Emergency.

---

**Interfaces**

The Dispatch Workstation application reads the data directly from the database. There are no external interfaces for this report.

**Validation**

None

**Data Updates**

None



# Chapter 10

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## Routines Subsystem

The Routines subsystem is used for monitoring and processing routine type field orders. This chapter includes the following topics:

- **Routines Subsystem Menus**
- **Routine Field Order Selection Criteria**
- **Routine Field Order List**
- **Routine Field Order Include Criteria**

### Routines Subsystem Menus

#### Action Menu

The **A**ctions menu contains sub-menu items that are specific to the Routine subsystem. The sub-menu items require that a field order be selected in the routine field order list before it can be enabled. The Actions menu contains the following sub-menu items:

##### **Move To Regular FOs**

This menu item is enabled when at least one field order is selected in the list. When selected, a message box is displayed on the user's desktop to confirm that the routine field orders should be moved to the regular field orders. If the message box is confirmed, the selected field orders will be deleted from the routine database tables and inserted into the regular field order tables. At this point, the user can process the order(s) in the Field Order subsystem.

##### **Delete...**

This menu item is enabled when at least one field order is selected in the list. When selected, a message box is displayed on the user's desktop to confirm that the routine field orders should be deleted. If the message box is confirmed, the selected field orders will be deleted from the routine database tables.

##### **Browse...**

This menu item is enabled when a field order is selected in the list. Only one field order can be selected for browse. When selected, the routine field order is displayed on the Common Information screen. The only field order screen available in the Routine subsystem is the Common Information screen.

##### **Reselect...**

---

This menu item is always enabled. When selected, the Routine Field Order Selection Criteria screen is displayed. The user can change the selection criteria to reselect a different set of routine field orders. When the Ok button is pressed, the routine field order list is redisplayed with the new set of routine field orders.

## View Menu

The **V**iew menu contains sub-menu items that are specific to the Routine subsystem. The View sub-menu items are always enabled when the Routine subsystem has focus. The View menu contains the following sub-menu items:

### **P**redefined Views

This menu item contains a sub-menu of available predefined views. The sub-menu items are **A**ll Orders and **S**electd Orders. Selecting a predefined view will automatically display the appropriate field orders in the routine field order list.

### **S**et Display **C**olumns...

This menu item is used to change the columns that are displayed in the routine field order list. The user has the option to change the routine field order columns that are displayed and the order in which they are displayed. When selected, the Set Display Columns screen is displayed. The routine field order columns as specified in the Station.ini file are used to populate the Set Display Columns screen. Refer to **Set Display Columns Screen** on page 15-183 for a further description of this function.

### **S**et **S**ort Columns...

This menu item is used to change the columns that are used to sort the routine field order list. The user has the option to change the routine field order columns that are used in the sort and whether the field is sorted ascending or descending. When selected, the Set Sort Columns screen is displayed. The routine field order columns as specified in the Station.ini file are used to populate the Set Sort Columns screen. Refer to **Set Sort Columns Screen** on page 15-185 for a further description of this function.

### **I**nclude Criteria...

This menu item is used to specify criterion that is used to limit the routine field orders displayed in the list. When selected, the Include Criteria screen is displayed. Refer to **Routine Field Order Include Criteria** on page 10-10.

## Font

This menu item contains a sub-menu of available font settings. The sub-menu items are **S**mall Font, **M**edium Font, and **L**arge Font. A checkmark will appear next to the current font selection. Clicking on another font selection will automatically redisplay the data in the routine field order list using the selected font.

### **S**ave **O**ptions

This menu item is used to save all the currently selected routine subsystem user options to the database. The Routine subsystem options selected (e.g. display columns, width, sequence, sort columns, and font) are stored in the database by logged on user's id.

### **A**uto-Resize Columns

This menu item will resize the width of the displayed routine field order list columns so that all the data in the column is visible. The data in the column or the column heading determines the width of the column, which is wider. The column heading will always be put on one line when this function is used. This menu item is useful after the font has been changed.

## Routine Field Order Selection Criteria

The Routine Field Order Selection Criteria screen enables the Dispatch Workstation user to filter routine field orders based on specified criteria.

### Function/Process Description

The Routine Field Order Selection Criteria screen is the first screen displayed when the Routines subsystem is started.

Use this screen to specify the criteria you want to use for selecting orders to be included in the Routine Field Orders List. When you click Ok, the Routine Field Order List is displayed, showing only those orders that match ALL specified criteria.

### Data Fields

Data fields are described below:

Field Name	Description
Maximum Field Orders to Load	Used to limit the number of routine field orders selected for display. Use '0' for all orders that match the specified criteria.
All Routine Field Orders/Limit Selection By...	Limit Selection By... must be selected to specify selection criteria. Selecting All Routine Field Orders will cause all routine field orders up to the number specified in Maximum Field Orders to Load will be selected.
Town	Indicates a town will be chosen as a selection criterion.
Town list	Town used to limit the routine field orders to be displayed. The user can select 1 from the list. This list is populated with the available town codes from the town validation table (DHTTOWN).

Serving Office	Indicates a serving office (district) will be chosen as a selection criterion.
Serving Office list	Serving office (district) used to limit the routine field orders to be displayed. The user can select 1 from the list. This list is populated with the available district codes from the district validation table (DHTOFFC).
Field Order Type	Indicates a field order type will be chosen as a selection criterion.
Field order type list	Field order type used to limit the routine field orders to be displayed. The user can select 1 from the list. This list is populated with the available field order types from the field order type validation table (DHTFOTYP).
Service Point Type	Indicates a service point type will be chosen as a selection criterion.
Service point type list	Service point type used to limit the routine field orders to be displayed. The user can select 1 from the list. This list is populated with the available service point types from the service point validation table (DHTSERPT).
Service Area	Indicates a service area will be chosen as a selection criterion.
Service area	Service area used to limit the routine field orders to be displayed.
Meter Number	Indicates a meter number will be chosen as a selection criterion.
Meter number	Meter number used to limit the routine field orders to be displayed.
Routing Reason	Indicates a routing reason will be chosen as a selection criterion.
Routing reason	Routing reason used to limit the routine field orders to be displayed.

## Interfaces

Function dependent. Refer to the specific routines function for interface details.

## Validation

A value for Maximum Field Orders to Load must be specified. If Limit Selection By... is selected, the user must enter at least one selection criterion. If the Town checkbox is checked, a town must be selected from the town list. If the Serving Office checkbox is checked, a serving office must be selected from the serving office list. If the Field Order Type checkbox is checked, a field order type must be selected from the field order type list. If the Service Point Type checkbox is checked, a service point type must be selected from the service point type list. If the Service Area checkbox is checked, a service area must be entered. If the Meter Number checkbox is checked, a meter number must be entered. If the Routing Reason checkbox is checked, a routing reason must be entered.

## Data Updates

Function dependent. Refer to the specific routines function for data update details.

## Routine Field Order List

The main element of the Routine subsystem is the Routine Field Order List. The Routine Field Order List is automatically displayed after the Archive selection criteria are specified.

Mobility Order #	Order Type	Division	District	Service Area	Early Start Date	Due On Date	Customer Name	Service Address
RTN23488	MR01	OR	11266	COL01	2006-02-00	2006-02-00	Kathy Feato	6853 Black Wing Dr
RTN23489	MR01	OR	11266	COL01	2006-02-00	2006-02-00	Kathy Feato	686 main
RTN23490	MT05	OR	11266	COL01	2006-02-00	2006-02-00	Kathy Feato	98797 second

### Function/Process Description

The Routine Field Order list provides a tabular display of routine field orders. The Routine Field Order list is capable of displaying all routine field orders that meet the specified selection criteria.

You can perform the following actions from the Routine Field Order List:

- To change the routine field order columns that are displayed and the order in which they are displayed, select the 'Set Display Columns' menu item under the View menu. See **Set Display Columns Screen** on page 15-183.
- To move the position of a column, click on the column header and drag the column to the desired position.
- To change the routine field order columns that are used to sort the field orders in the list, select the 'Set Sort Columns' menu item under the View menu item. See **Set Sort Columns Screen** on page 15-185.
- To perform a quick sort, click on a column heading. This quick sort will sort all visible columns based on the column heading selected. Only one sort can be executed at a time.
- To change the width of the routine field order columns, position the cursor so that is on the line following the column header that is to be adjusted. The cursor will change to a double arrow. Click the left button and drag the line until the column is the desired width.
- To change the size of the font used to display the routine field order text (e.g. Large, Medium, and Small), select the 'Font' menu item under the View menu item.

Refer to **Routines Subsystem Menus** on page 10-1 for a description of the menu items.

## Buttons

The Routine Field Order list has two buttons at the bottom of the screen. These buttons are duplicates of Action menu items.

Button	Description
Move	This button is enabled when at least one field order is selected in the list. When pressed, a message box is displayed on the user's desktop to confirm that the routine field orders should be moved to the regular field orders. If the message box is confirmed, the selected field orders will be deleted from the routine database tables and inserted into the regular field order tables. At this point, the user can process the order(s) in the Field Order subsystem.
Delete	This button is enabled when at least one field order is selected in the list. When pressed, a message box is displayed on the user's desktop to confirm that the routine field orders should be deleted. If the message box is confirmed, the selected field orders will be deleted from the routine database tables.

## Data Fields

This list contains columns of routine field order data.

Col#	Header	Mapped Data	Type
0	Mobility Order #	FO_NUMBER	
1	Common Order Id	CIS_NUMBER	Numeric
2	Order Type	FO_TYPE	
3	Tracking Status Abbr	'T-[FO History1]FO_TRACK_STATUS@DHTFSTAT.TBL::STATUS_ABBR	
4	Tracking Status Code	[FO History1]FO_TRACK_STATUS	
5	Cmpl Status Abbr	'C-[FO History1]FO_CMPL_STATUS@DHTFSTAT.TBL::STATUS_ABBR	
6	Cmpl Status Code	[FO History1]FO_CMPL_STATUS	
7	Priority Code	PRIORITY	
8	Priority Icon	PRIORITY@DHTPRTY.TBL::PRIORITY_ICON	
9	Unused(Info Code)	INFO_CODE	
10	CIS Calltaker	TAKEN_BY	
11	CIS Taken Date	TAKEN_DTTM=DATETIME(%m/%d/%Y)	
12	CIS Taken Time	TAKEN_DTTM=DATETIME(%H:%M)	
13	Mobility Receive Date	[FO History1]RECEIVE_DTTM=DATETIME(%m/%d/%Y)	
14	Mobility Receive Time	[FO History1]RECEIVE_DTTM=DATETIME(%H:%M)	
15	Due On Date	[FO History1]DUE_ON_DTTM=DATETIME(%m/%d/%Y)	
16	Due On Time	[FO History1]DUE_ON_DTTM=DATETIME(%H:%M)	
17	Early Start Date	[FO History1]EARLY_START_DTTM=DATETIME(%m/%d/%Y)	
18	Early Start Time	[FO History1]EARLY_START_DTTM=DATETIME(%H:%M)	

Col#	Header	Mapped Data	Type
19	Unused1(Gas Source)	GAS_SOURCE_CODE	
20	Unused2(Electric Source)	ELEC_SOURCE_CODE	
21	Crew	[FO History1]CREW	
22	Account #	ACCOUNT_NUMBER	Numeric
23	Premise ID	PREMISE_NO	
24	Customer Name	CUSTOMER_NAME	
25	Customer Phone	SERVICE_PHONE	
26	Alternate Phone	CONTACT_PHONE	
27	Service Address	DISPLAY_ADDR_1	
28	Unused(Town Code)	TOWN_CODE@DHTTOWN.TBL::TOWN_NAME	
29	Unused(Zip Code)	ZIP_CODE	
30	Division	DIVISION	
31	District	DISTRICT	
32	Service Area	SERVICE_AREA	
33	Sched. Area	SCHEDULING_AREA	
34	Unused(Map Grid Coordinate)	GRID_NUMBER	
35	Sortable Address	SPARE_1	
36	Key #	SPARE_2	
37	Key At	SPARE_3	
38	Account Type	SPARE_4	
39	Commit Guar.	SPARE_5	
40	Order Description	SPARE_6	
41	Unused	SPARE_7	
42	Unused	SPARE_8	
43	Completion Remarks	[FO History1]COMPL_REMARKS_1+ [FO History1]COMPL_REMARKS_2	
44	Appt Start Date	[FO History1]APPT_START_DTTM=DATETIME(%m/%d/%Y)	
45	Appt Start Time	[FO History1]APPT_START_DTTM=DATETIME(%H:%M)	
46	Appt Finish Date	[FO History1]APPT_FINISH_DTTM=DATETIME(%m/%d/%Y)	
47	Appt Finish Time	[FO History1]APPT_FINISH_DTTM=DATETIME(%H:%M)	
48	Unused(DspEmerAckTime)	[FO History1]DSP_EMER_ACK_DTTM(%m/%d/%Y %H:%M:%S)	

Col#	Header	Mapped Data	Type
49	Assigned Time	[FO History1]ASSIGNED_DT*TM(%m/%d/%Y %H:%M:%S)	
50	Dispatched Time	[FO History1]DISPATCH_DT*TM(%m/%d/%Y %H:%M:%S)	
51	Dispatcher	[FO History1]DISPATCHER	
52	Est Restore Time	[FO History1]EST_RESTORE_DT*TM(%m/%d/%Y %H:%M:%S)	
53	Mobile Emergency Ack Time	[FO History1]MBL_EMER_ACK_DT*TM(%m/%d/%Y %H:%M:%S)	
54	Enroute Time	[FO History1]ENROUTE_DT*TM(%m/%d/%Y %H:%M:%S)	
55	Onsite Time	[FO History1]ONSITE_DT*TM(%m/%d/%Y %H:%M:%S)	
56	Completion Time	[FO History1]COMPLETION_DT*TM(%m/%d/%Y %H:%M:%S)	
57	Completed By	[FO History1]COMPLETED_BY	
58	Reason Code	[FO History1]REASON_CODE	
59	City	SPARE_9	
60	Appt Guar.	SPARE_10	
61	Order Remarks	SPARE_11	
62	Meter Form	SPARE_12	
63	CUT Priority	SPARE_13	
64	MERC	SPARE_14	
65	Spare15 (Unused)	SPARE_15	
66	Special Handling Code	SPECHANDLING_CODE@DHTSPHDL.TBL::SPECHANDLING_DES C	
67	Schedule From Time	[FO History1]SCHEM_FROM_DT*TM=DATE*TIME(%H:%M:%S)	
68	Schedule From Date	[FO History1]SCHEM_FROM_DT*TM=DATE*TIME((%m/%d/%Y)	
69	Schedule End Time	[FO History1]SCHEM_END_DT*TM=DATE*TIME(%H:%M:%S)	
70	Schedule End Date	[FO History1]SCHEM_END_DT*TM=DATE*TIME(%m/%d/%Y)	
71	External Priority	EXTERNAL_PRIORITY	
72	Allocated Time	[FO History1]ALLOCATED_DT*TM(%m/%d/%Y %H:%M:%S)	

## Interfaces

The routine field orders are retrieved from the Server application and stored internally in the Dispatch Workstation application. When the routine field order list is displayed, the appropriate records and columns are shown.

When orders are set ready to dispatch, the Dispatch Workstation application generates field order status transactions to send to the Server for notifying the other Dispatch Workstation users of the status change. Finally, the application will send a transaction to the Server to indicate the assigned crew(s) has orders that are ready to dispatch.

When a routine field order is moved to the regular field orders, the created routine field order transaction is generated and sent to the Server for processing. The Server will insert the selected

order into the active field order tables and delete the order from the routine field order tables. The created routine field order transaction is routed to the other logged on Dispatch Workstation users and the Router. The Server will write a message to the Audit log stating that the routine field order was moved to the active field order tables.

## **Validation**

None

## **Data Updates**

When a routine field order is moved to the regular field orders, the database is updated by the Server application. The selected routine field order(s) are inserted into the regular field order database tables and deleted from the routine field order database tables.

## Routine Field Order Include Criteria

The Routine Field Order Include Criteria screen enables the Dispatch Workstation user to filter routine field orders based on specified criteria.

### Function/Process Description

The Routine Field Order Include Criteria screen is accessed via the Include Criteria menu item in the Routines subsystem.

Enter your selection criteria and click Ok. The routine field order list is filtered using the specified criteria. This criteria will also be used to filter the list when the Selected Orders pre-defined view is displayed.

**Note:** A field order MUST match all specified criteria included in the field order list, with the exception of tracking status, order type, and crew id. The field order MUST match one of the selected tracking status and one of the selected order types and one of the selected crew id to be displayed.

**Note:** Before a field can exist on the Include Criteria screen, it must be an available column in the Routine Field order list. (See **Routine Field Order List** on page 10-5.)

The Clear button is used to clear any selected/entered values in the Limited Selection fields.

### Data Fields

Data fields are described below:

Field Name	Description
All Orders/Limit Selection	Limit selection must be selected to specify criteria

Field Name	Description
Tracking status 1	First tracking status used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available tracking status codes from the field order status codes table (DHTFSTAT).
Cost Center	Cost Center (District) used to limit the field orders to be displayed.
Tracking Status 2	Second tracking status used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available tracking status codes from the field order status codes table (DHTFSTAT).
Grid Number	Grid number used to limit the field orders to be displayed.
Completion Status	Completion status used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available completion status codes from the field order status codes table (DHTFSTAT).
Due On Date	Due On date used to limit the field orders to be displayed.
Service Area	Service area used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available service areas from the service area validation table (DHTSERV).
Account Number	Account number used to limit the field orders to be displayed.
Town	Town codes used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available town codes from the town code validation table (DHTTOWN).
Zip Code	Zip code used to limit the field orders to be displayed.
Gas Source Code	Gas source code used to limit the field orders to be displayed.
Meter Code	Meter code used to limit the field orders to be displayed.
Order Type	Order types used to limit the field orders to be displayed. The user can select multiple entries from the list. This list is populated with the available order types from the field order type validation table (DHTFOTYP).
Crew Ids	Crew ids used to limit the field orders to be displayed. The user can select multiple entries from the list. This list is populated with the available crew ids from the database (DHTCREW).
Appt Start Time From/To	Range of appointment start times to be used to limit field orders to be displayed. The user must enter both a To and From time for the field orders to be limited by appointment start time.
Ext. App. Receive Date From/To	Range of External Application Receive dates to be used to limit field orders to be displayed. The user must enter both a To and From date for the field orders to be limited by External Application receive date.
MWM Receive Date From/To	Range of receive dates in Oracle Utilities Mobile Workforce Management to be used to limit field orders to be displayed. The user must enter both a To and From date for the field orders to be limited by Oracle Utilities Mobile Workforce Management receive date.

## Interfaces

The new criteria are saved internally in memory and the routine field order list is refreshed to only show those orders that meet the specified criteria.

## Validation

None

## Data Updates

None

# Chapter 11

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## Archive Field Order Subsystem

The Archive subsystem is used for reviewing archived field orders in the historical database tables. This chapter includes the following topics:

- **Archive Subsystem Menus**
- **Archive Subsystem Selection Criteria**
- **Archive Field Order List**
- **Archive Field Order Include Criteria**

### Archive Subsystem Menus

#### Actions Menu

The **A**ctions menu contains sub-menu items that are specific to the Archive subsystem. The sub-menu items require that a field order be selected in the archive field order list before it can be enabled. The Actions menu contains the following sub-menu items:

##### **Browse...**

This menu item is enabled when a field order is selected in the list. Only one field order can be selected for browse. When selected, the archive field order is displayed on the field order screens.

##### **Reselect...**

This menu item is always enabled. When selected, the Archive Field Order Selection Criteria screen is displayed. The user can change the selection criteria to reselect a different set of archive field orders. When the Ok button is pressed, the archive field order list is redisplayed with the new set of routine field orders.

#### View Menu

The **V**iew menu contains sub-menu items that are specific to the Archive subsystem. The View sub-menu items are always enabled when the Archive subsystem has focus. The View menu contains the following sub-menu items:

##### **Predefined Views**

This menu item contains a sub-menu of available predefined views. The sub-menu items are **All Orders** and **Selectd Orders**. Selecting a predefined view will automatically display the appropriate field orders in the archive field order list.

---

## **Set Display Columns...**

This menu item is used to change the columns that are displayed in the archive field order list. The user has the option to change the archive field order columns that are displayed and the order in which they are displayed. When selected, the Set Display Columns screen is displayed. The archive field order columns as specified in the Station.ini file are used to populate the Set Display Columns screen. Refer to **Set Display Columns Screen** on page 15-183 for a further description of this function.

## **Set Sort Columns...**

This menu item is used to change the columns that are used to sort the archive field order list. The user has the option to change the archive field order columns that are used in the sort and whether the field is sorted ascending or descending. When selected, the Set Sort Columns screen is displayed. The archive field order columns as specified in the Station.ini file are used to populate the Set Sort Columns screen. Refer to **Set Sort Columns Screen** on page 15-185.

## **Include Criteria...**

This menu item is used to specify criterion that is used to limit the archive field orders displayed in the list. When selected, the Include Criteria screen is displayed. Refer to **Archive Field Order Include Criteria** on page 11-9.

## **Font**

This menu item contains a sub-menu of available font settings. The sub-menu items are **Small Font**, **Medium Font**, and **Large Font**. A checkmark will appear next to the current font selection. Clicking on another font selection will automatically redisplay the data in the routine field order list using the selected font.

## **Save Options**

This menu item is used to save all the currently selected archive subsystem user options to the database. The Archive subsystem options selected (e.g. display columns, width, sequence, sort columns, and font) are stored in the database by logged on user's id.

## **Auto-Resize Columns**

This menu item will resize the width of the displayed archive field order list columns so that all the data in the column is visible. The data in the column or the column heading determines the width of the column, which is wider. The column heading will always be put on one line when this function is used. This menu item is useful after the font has been changed.

## Archive Subsystem Selection Criteria

The Archive Field Order Selection Criteria screen enables the Dispatch Workstation user to filter archive field orders based on specified criteria.

### Function/Process Description

The Archive Subsystem Selection screen is the first screen displayed when the Archives subsystem is started.

Specify your selection criteria and click OK. The Archive Field Order List is displayed using the selection criteria you specified.

### Data Fields

Data fields are described below:

Field Name	Description
From Date	From date to use in selection. The default is to select archived orders with a DUE_ON_DTTM greater than or equal to the From date/time.
To Date	To date to use in selection. The default is to select archived orders with an EARLY_START_DTTM less than or equal to the To date/time.
From Time	From time to use in selection. The default is to select archived orders with a DUE_ON_DTTM greater than or equal to this date.
To Time	To time to use in selection. The default is to select archived orders with an EARLY_START_DTTM less than or equal to the To date/time.

<b>Field Name</b>	<b>Description</b>
Retrieve FO's using Completion Date	Indicates the query for orders should use the COMPLETION_DTTM. If this check box is checked, archived orders will be selected where the COMPLETION_DTTM is greater than or equal to the From date/time and less than or equal to the To date/time.
Crew	Crew used to limit the archive field orders to be displayed. The user can select multiple crews from the list. This list is populated with the available crew ids from the crew table (DHTCREW).
FO Type	Field order type used to limit the archive field orders to be displayed. The user can select multiple entries from the list. This list is populated with the available field order types from the field order type validation table (DHTFOTYP).

## Interfaces

Function dependent. Refer to the specific archive function for interface details.

## Validation

None.

## Data Updates

Function dependent. Refer to the specific archive function for data update details.

## Archive Field Order List

The main element of the Archive subsystem is the Archive Field Order List. The Archive Field Order List is automatically displayed after the Archive selection criteria are specified.

Mobility Order #	CIS Order #	Order Type	Tracking Status Abbr	Tracking Status Code	Cmpl Status Abbr	Cmpl Status Co
OMS00000005316	13385	T00200	Voided	V	Cmpl	C
OMS00000005404	13482	T00200	Voided	V	Cmpl	C
OMS00000005416	13497	T00200	Voided	V	Cmpl	C
OMS00000005418	13502	T00200	Voided	V	Cmpl	C
OMS00000005420	13505	T00200	Voided	V	Cmpl	C
OMS00000005421	13507	T00200	Voided	V	Cmpl	C
OMS00000005424	13512	T00200	Voided	V	Cmpl	C
OMS00000005425	13514	T00200	Voided	V	Cmpl	C
OMS00000005426	13516	T00200	Voided	X	Cmpl	C
OMS00000005427	13518	T00200	Voided	V	Cmpl	C
OMS00000005428	13520	T00200	Voided	V	Cmpl	C
OMS00000005429	13523	T00200	Voided	V	Cmpl	C
OMS00000005430	13524	T00200	Voided	V	Cmpl	C
OMS00000005431	13527	T00200	Voided	V	Cmpl	C
OMS00000005433	13530	T00200	Voided	V	Cmpl	C
OMS00000005436	13533	T00200	Voided	V	Cmpl	C
OMS00000005440	13539	T00200	Voided	V	Cmpl	C

### Function/Process Description

The Archive Field Order list provides a tabular display of archive field orders. The Archive Field Order list is capable of displaying all archive field orders that meet the specified selection criteria.

You can perform the following actions from the Routine Field Order List:

- To change the archive field order columns that are displayed and the order in which they are displayed, select the 'Set Display Columns' menu item under the View menu. The user can also move the position of a column by clicking on the column header and dragging the column to the desired position.
- To change the archive field order columns that are used to sort the field orders in the list, select the 'Set Sort Columns' menu item under the View menu item.
- To perform a quick sort, click a column heading. This quick sort will sort all visible columns based on the column heading selected. Only one sort can be executed at a time.
- To change the width of the archive field order columns, position the cursor so that is on the line following the column header that is to be adjusted. The cursor will change to a double arrow. Click the left button and drag the line until the column is the desired width.
- To change the size of the font used to display the archive field order text (e.g. Large, Medium, and Small), select the 'Font' menu item under the View menu item.

### Data Fields

This list contains columns of archived field order data.

Col#	Header	Mapped Data	Type
0	Mobility Order #	FO_NUMBER	
1	Common Order Id	CIS_NUMBER	Numeric

Col#	Header	Mapped Data	Type
2	Order Type	FO_TYPE	
3	Tracking Status Abbr	'T'[FO History1]FO_TRACK_STATUS@DHTFSTAT.TBL::STATUS_ABBR	
4	Tracking Status Code	[FO History1]FO_TRACK_STATUS	
5	Cmpl Status Abbr	'C'[FO History1]FO_CMPL_STATUS@DHTFSTAT.TBL::STATUS_ABBR	
6	Cmpl Status Code	[FO History1]FO_CMPL_STATUS	
7	Priority Code	PRIORITY	
8	Priority Icon	PRIORITY@DHTPRTY.TBL::PRIORITY_ICON	
9	Unused(Info Code)	INFO_CODE	
10	CIS Calltaker	TAKEN_BY	
11	CIS Taken Date	TAKEN_DTTM=DATETIME(%m/%d/%Y)	
12	CIS Taken Time	TAKEN_DTTM=DATETIME(%H:%M)	
13	Mobility Receive Date	[FO History1]RECEIVE_DTTM=DATETIME(%m/%d/%Y)	
14	Mobility Receive Time	[FO History1]RECEIVE_DTTM=DATETIME(%H:%M)	
15	Due On Date	[FO History1]DUE_ON_DTTM=DATETIME(%m/%d/%Y)	
16	Due On Time	[FO History1]DUE_ON_DTTM=DATETIME(%H:%M)	
17	Early Start Date	[FO History1]EARLY_START_DTTM=DATETIME(%m/%d/%Y)	
18	Early Start Time	[FO History1]EARLY_START_DTTM=DATETIME(%H:%M)	
19	Unused1(Gas Source)	GAS_SOURCE_CODE	
20	Unused2(Electric Source)	ELEC_SOURCE_CODE	
21	Crew	[FO History1]CREW	
22	Account #	ACCOUNT_NUMBER	Numeric
23	Premise ID	PREMISE_NO	
24	Customer Name	CUSTOMER_NAME	
25	Customer Phone	SERVICE_PHONE	
26	Alternate Phone	CONTACT_PHONE	
27	Service Address	DISPLAY_ADDR_1	
28	Unused(Town Code)	TOWN_CODE@DHTTOWN.TBL::TOWN_NAME	

Col#	Header	Mapped Data	Type
29	Unused(Zip Code)	ZIP_CODE	
30	Division	DIVISION	
31	District	DISTRICT	
32	Service Area	SERVICE_AREA	
33	Sched. Area	SCHEDULING_AREA	
34	Unused(Map Grid Coordinate)	GRID_NUMBER	
35	Sortable Address	SPARE_1	
36	Key #	SPARE_2	
37	Key At	SPARE_3	
38	Account Type	SPARE_4	
39	Commit Guar.	SPARE_5	
40	Order Description	SPARE_6	
41	Unused	SPARE_7	
42	Unused	SPARE_8	
43	Completion Remarks	[FO History1]COMPL_REMARKS_1+ [FO History1]COMPL_REMARKS_2	
44	Appt Start Date	[FO History1]APPT_START_DTMM=DATETIME(%m/%d/%Y)	
45	Appt Start Time	[FO History1]APPT_START_DTMM=DATETIME(%H:%M)	
46	Appt Finish Date	[FO History1]APPT_FINISH_DTMM=DATETIME(%m/%d/%Y)	
47	Appt Finish Time	[FO History1]APPT_FINISH_DTMM=DATETIME(%H:%M)	
48	Unused(DspEmer AckTime)	[FO History1]DSP_EMER_ACK_DTMM(%m/%d/%Y %H:%M:%S)	
49	Assigned Time	[FO History1]ASSIGNED_DTMM(%m/%d/%Y %H:%M:%S)	
50	Dispatched Time	[FO History1]DISPATCH_DTMM(%m/%d/%Y %H:%M:%S)	
51	Dispatcher	[FO History1]DISPATCHER	
52	Est Restore Time	[FO History1]EST_RESTORE_DTMM(%m/%d/%Y %H:%M:%S)	
53	Mobile Emergency Ack Time	[FO History1]MBL_EMER_ACK_DTMM(%m/%d/%Y %H:%M:%S)	
54	Enroute Time	[FO History1]ENROUTE_DTMM(%m/%d/%Y %H:%M:%S)	
55	Onsite Time	[FO History1]ONSITE_DTMM(%m/%d/%Y %H:%M:%S)	
56	Completion Time	[FO History1]COMPLETION_DTMM(%m/%d/%Y %H:%M:%S)	

Col#	Header	Mapped Data	Type
57	Completed By	[FO History1]COMPLETED_BY	
58	Reason Code	[FO History1]REASON_CODE	
59	City	SPARE_9	
60	Appt Guar.	SPARE_10	
61	Order Remarks	SPARE_11	
62	Meter Form	SPARE_12	
63	CUT Priority	SPARE_13	
64	MERC	SPARE_14	
65	Spare15 (Unused)	SPARE_15	
66	Special Handling Code	SPECHANDLING_CODE@DHTSPHDL.TBL::SPECHANDLING_DESC	
67	Schedule From Time	[FO History1]SCHED_FROM_DT*TM=DATETIME(%%H:%%M:%%S)	
68	Schedule From Date	[FO History1]SCHED_FROM_DT*TM=DATETIME(%%m/%%d/%%Y)	
69	Schedule End Time	[FO History1]SCHED_END_DT*TM=DATETIME(%%H:%%M:%%S)	
70	Schedule End Date	[FO History1]SCHED_END_DT*TM=DATETIME(%%m/%%d/%%Y)	
71	External Priority	EXTERNAL_PRIORITY	
72	Allocated Time	[FO History1]ALLOCATED_DT*TM	

## Interfaces

The archive field orders are retrieved directly from the historical tables in the database and stored internally in the Dispatch Workstation application. When the archive field order list is displayed, the appropriate records and columns are shown.

## Validation

None

## Data Updates

None

## Archive Field Order Include Criteria

The Archive Field Order Include Criteria screen enables the Dispatch Workstation user to filter archive field orders based on specified criteria.

### Function/Process Description

The Archive Field Order Include Criteria screen enables the Dispatch Workstation user to filter archived field orders based on specified criteria. The Archive Field Order Include Criteria screen is accessed via the Include Criteria menu item in the Archive Field Order subsystem.

Enter your selection criteria and click Ok. The Archive Field Order List is filtered using the specified criteria. This criteria will also be used to filter the list when the Selected Orders pre-defined view is displayed.

**Note:** A field order **MUST** match all specified criteria included in the field order list, with the exception of tracking status, order type, and crew id. The field order **MUST** match one of the selected tracking status and one of the selected order types and one of the selected crew id to be displayed.

**Note:** Before a field can exist on the Include Criteria screen, it must be an available column in the Archive Field order list. (See **Archive Field Order List** on page 11-5.)

The Clear button is used to clear any selected/entered values in the Limited Selection fields.

## Data Fields

Data fields are described below:

Field Name	Description
All Orders/Limit Selection	Limit selection must be selected to specify criteria
Tracking status 1	First tracking status used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available tracking status codes from the field order status codes table (DHTFSTAT).
Cost Center	Cost Center (District) used to limit the field orders to be displayed.
Tracking Status 2	Second tracking status used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available tracking status codes from the field order status codes table (DHTFSTAT).
Grid Number	Grid number used to limit the field orders to be displayed.
Completion Status	Completion status used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available completion status codes from the field order status codes table (DHTFSTAT).
Due On Date	Due On date used to limit the field orders to be displayed.
Service Area	Service area used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available service areas from the service area validation table (DHTSERV).
Account Number	Account number used to limit the field orders to be displayed.
Town	Town codes used to limit the field orders to be displayed. The user can select 1 from the list. This list is populated with the available town codes from the town code validation table (DHTTOWN).
Zip Code	Zip code used to limit the field orders to be displayed.
Gas Source Code	Gas source code used to limit the field orders to be displayed.
Meter Code	Meter code used to limit the field orders to be displayed.
Order Type	Order types used to limit the field orders to be displayed. The user can select multiple entries from the list. This list is populated with the available order types from the field order type validation table (DHTFOTYP).
Crew Ids	Crew ids used to limit the field orders to be displayed. The user can select multiple entries from the list. This list is populated with the available crew ids from the database (DHTCREW).
Appt Start Time From/To	Range of appointment start times to be used to limit field orders to be displayed. The user must enter both a To and From time for the field orders to be limited by appointment start time.
Ext. App. Receive Date From/To	Range of External Application Receive dates to be used to limit field orders to be displayed. The user must enter both a To and From date for the field orders to be limited by External Application receive date.

---

<b>Field Name</b>	<b>Description</b>
MWM Receive Date From/To	Range of receive dates in Oracle Utilities Mobile Workforce Management to be used to limit field orders to be displayed. The user must enter both a To and From date for the field orders to be limited by MWM Receive Date.

---

## Interfaces

The new criteria are saved internally in memory and the archived field order list is refreshed to only show those orders that meet the specified criteria.

## Validation

None

## Data Updates

None



# Chapter 12

## Mapping Subsystem

The Mapping subsystem provides a graphical display of field orders and crews. The map is capable of displaying all field orders and crews in the dispatch areas being monitored, and allows users to select which field orders and crews to display.

This chapter includes the following topics:

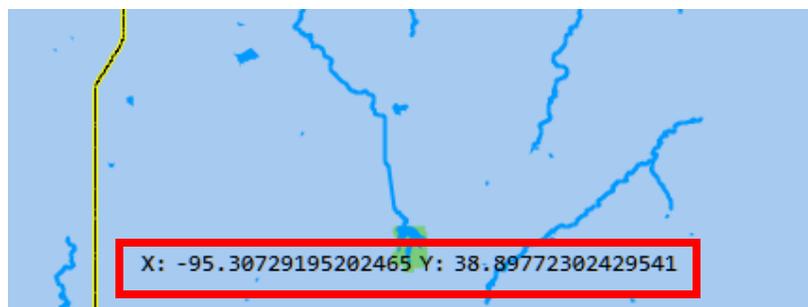
- **Mapping Overview**
- **Mapping Toolbar**
- **Themes**
- **Reference Map**
- **Pop-Up Menus**
- **Route Replay**

### Mapping Overview

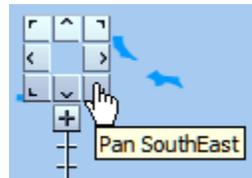
The symbols, sizes, and colors for icons displayed on the map are configurable. Configurable MapViewer parameters are specified in MWMSyles.dat and MWMThemes.dat. A default set of themes and styles are loaded during the Oracle Utilities Mobile Workforce Management installation process, if Oracle MapViewer support is selected. For more information about settings styles and themes, refer to the Oracle Utilities Mobile Workforce Management Installation Guide or the Oracle Application Server MapViewer documentation.

When the Mapping subsystem is started, the map displays all field orders and crews in the monitored dispatch area. If the user filters the field orders by date, only those orders loaded into memory are displayed. The user can do any of the following to change the map display:

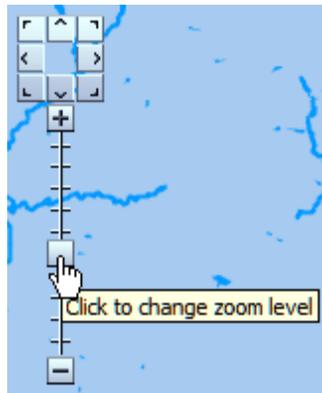
- **Display coordinates:** Click on any area of the map to display the latitude and longitude in the lower left portion of the window:



- **Center on location:** Double-click a point on the map to center the map on that location.
- **Move map within window:** Click and drag any point on the map to move it to a different position within the window.
- **Pan:** Click a directional arrow to pan in any direction:



- **Zoom:** Use the  and  buttons to zoom in and out, or click and drag the zoom slide bar:



- The **Zoom to Rectangle** option on the toolbar can also be used to zoom.
- When you zoom in or out, the map scale is updated:



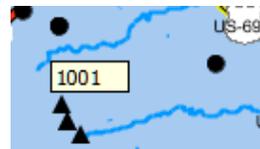
- **Display field order number:** Hover over a field order (triangle symbol) to display the field order number:



- **Display field order details:** Click a field order to display the following field order details:

OMS00000071679	
Field Order Number:	OMS00000071679
Crew:	DEMO4
Field Order Type:	SPARK
Priority:	3
Latitude:	38.968932
Longitude:	-94.664103

- **Display crew ID:** Hover over a crew (circle symbol) to display the crew ID.

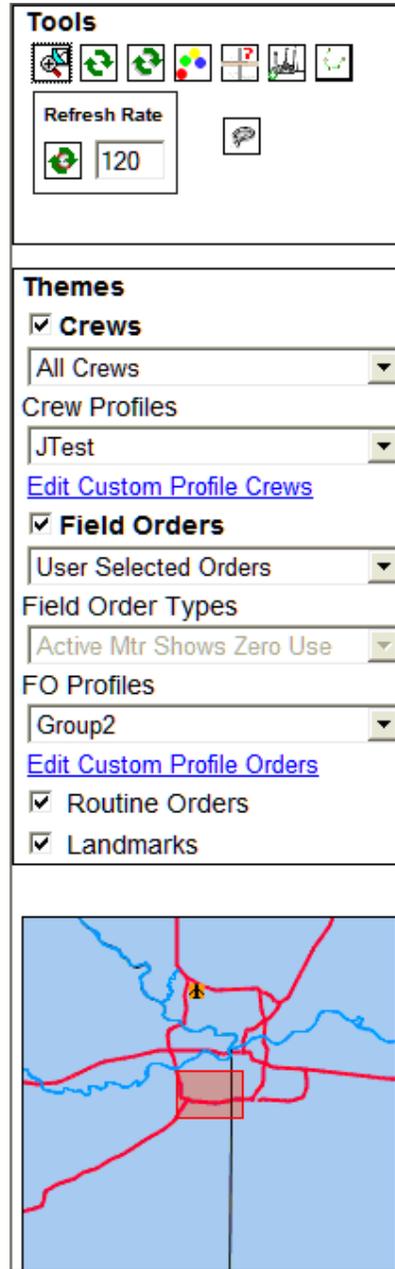


- **Display crew details:** Click a crew to display crew details:

1001	
Crew:	1001
Crew Status:	A
Field Order Number:	
Technician Name:	Jon Jeffrey
Latitude:	38.906467
Longitude:	-94.756308

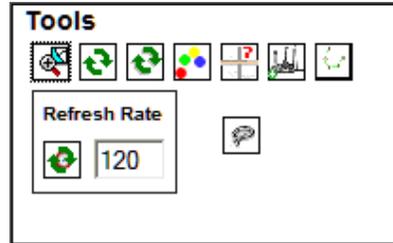
The Mapping subsystem has no Action or View menu. All functions are performed by toolbar options, as described in the following section.

# Mapping Toolbar



The toolbar appears on the left side of the mapping window. The Tools buttons at the top of the toolbar provide access to common functions. The Themes section allows the user to specify which crews and/or field orders to display on the map and whether or not to display landmarks and routine orders on the map.

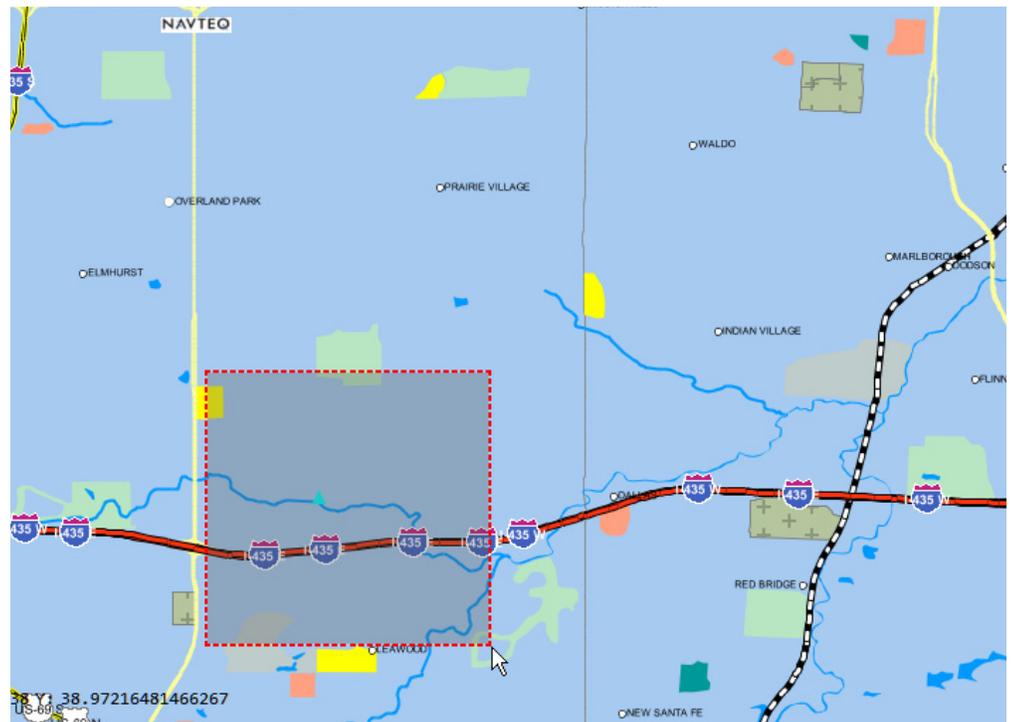
## Tools



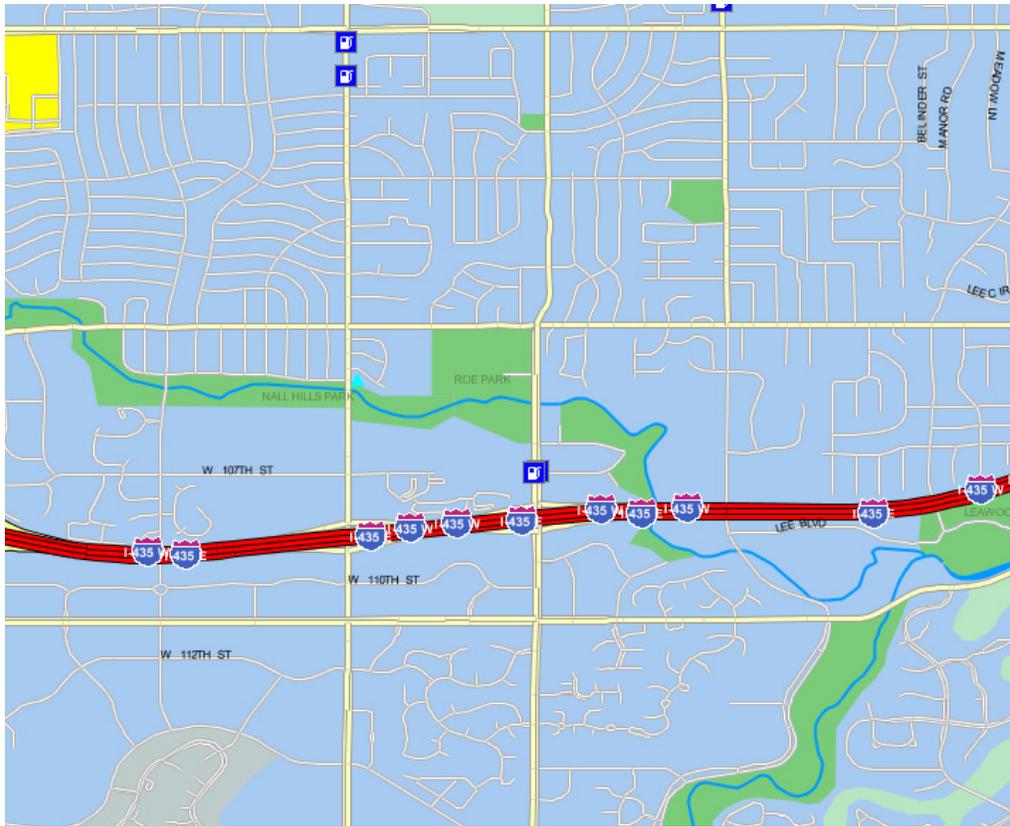
### Zoom to Rectangle

The  button allows the user to zoom into an area of the map. When the user clicks this button, the cursor changes to a crosshair. Click and drag the crosshair to draw a rectangle around the area to be enlarged. The map is redrawn to zoom in on the selected area.

The following figure shows how the map looks after the rectangle is drawn, but before the mouse button is released:



The following figure shows how the map looks after zooming into the selected rectangle:



### Refresh Page

The first  button on the toolbar refreshes the map window to its original state, with the vehicles and/or crews that appeared initially.

### Refresh Themes

The second  button on the toolbar refreshes crews and field orders based on the current theme selections.

### Map Legend

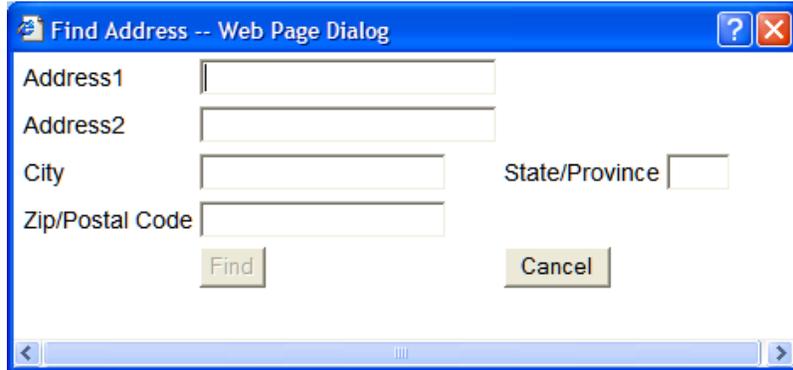
The  button displays the map legend, as shown in the following figure. The map legend lists the status codes that correspond to the various colors used for the crew and field order map symbols.

Crews	Field Orders
Complete	Allocated
En Route	Assigned
Logged Off	Completed
Logged On	Dispatched
Out Of Range	En Route
Out Of Service	Incomplete
On Site	Predispatched
Landmark	On Site
	Unassigned

If the Map Legend is currently displayed, clicking the Map Legend button removes it.

## Find Address

The  button is used to find an address on the map. When the user clicks this button, the Find Address dialog is displayed:



The image shows a dialog box titled "Find Address -- Web Page Dialog". It contains four text input fields: "Address1", "Address2", "City", and "Zip/Postal Code". To the right of the "City" field is a "State/Province" dropdown menu. At the bottom of the dialog are two buttons: "Find" and "Cancel".

Enter the complete address, then click Find. If the address can be found in the geocoding database, the location is marked on the map with a red exclamation point.

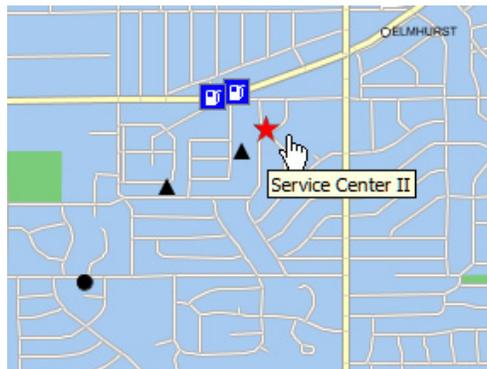
## Create Landmark

The  button is used to create a landmark on the map. The user clicks this button (the button will turn gray), and then clicks on the map where the landmark should be created. The Create a Landmark dialog is displayed for the user to enter a label for the landmark.



The image shows a dialog box titled "Create A Landmark -- Web Page Dialog". It features a small icon of a building with a green plus sign. Below the icon is a "Label:" text input field. At the bottom are two buttons: "Create" and "Cancel".

Once created, the new landmark is displayed on the map as a red star (or the configured symbol). When the mouse is positioned over the landmark, the label is displayed:



If the user clicks the landmark, the longitude and latitude of the landmark are displayed as shown in the following figure:

Service Center II	
LABEL:	Service Center II
SYMBOL_ID:	21
LATITUDE:	38.9698651343371
LONGITUDE:	-94.68951851598293

To delete a landmark, the user right-clicks the landmark on the map. The following screen appears:



### Route Replay

The  button allows users to see a graphical representation of routes for selected crews and vehicles that have AVL data present. See **Route Replay** on page 12-15 for details.

### Refresh Rate

The Refresh Rate is the frequency at which the map is automatically refreshed. The default is 120 seconds. The user can change the refresh rate by entering a different value.



### Lasso FOs and Crews

The  button allows users to draw a 'lasso' around a group of field orders or crews and then view the selected items in the field order list or crew list. When you select this button, the cursor changes to a crosshair. Click and drag to draw a box around the desired field orders and/or crews. The field order list and crew list are refreshed to display the selected orders and crews. In addition, pre-defined views are created so that users can re-display the last "lasso" view at any time:

- The Pre-defined Views>Selected Orders from Map option on the View menu in the Field Order subsystem will display the orders that were selected the last time the Lasso Fos and Crews option was used.
- The Pre-defined Views>Selected Crews from Map option on the View menu in the Crew Status subsystem will display the crews that were selected the last time the Lasso Fos and Crews option was used.

## Themes

---

The Themes section of the toolbar allows the user to control which crews and field orders are displayed on the map.

## Crews



**Crews checkbox** - Allows users to show or hide crews from the map display. When checked, crews are displayed based on the theme and profile selections made in the next two drop-down boxes, as described below. The Crews checkbox is checked by default.

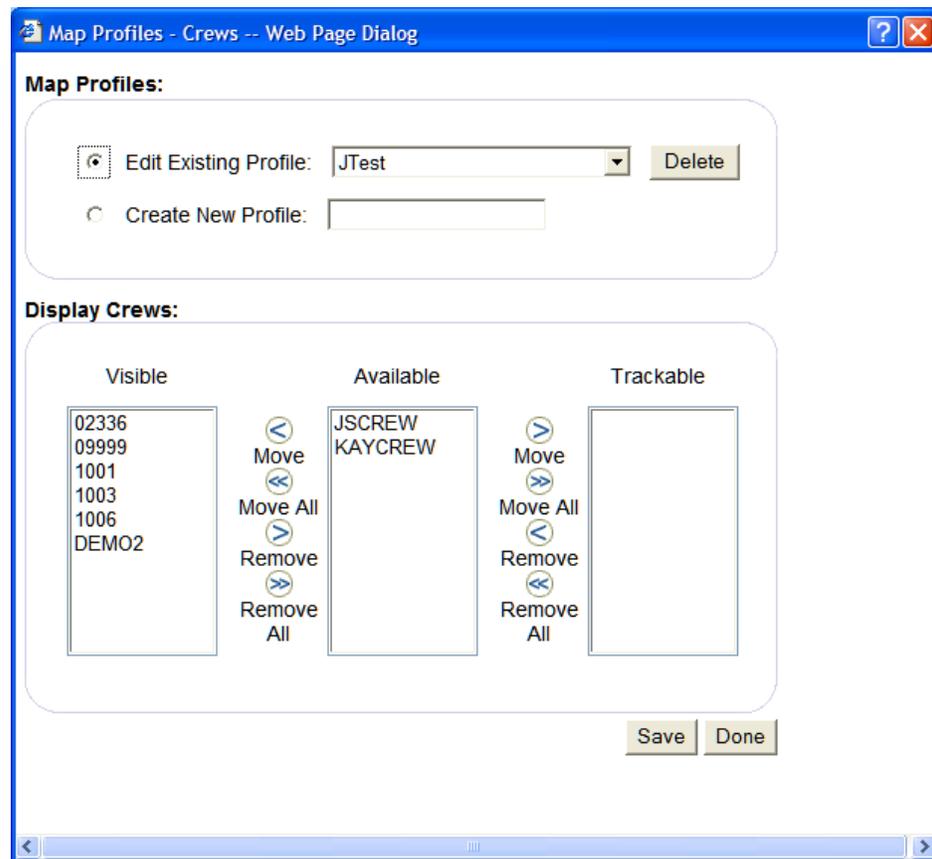
**Crews drop-down list** - Allows users to select which crews to display on the map. These selections are referred to as themes.

- **All Crews** – Displays all crews. This is the default.
- **Open Order Crews** – Displays crews with open orders.
- **Late for Appointment Crews** – Displays crews that are late for an appointment
- **Taking Too Long Crews** – Displays crews that are taking too long
- **Emergency Order Crews** – Displays crews with emergency orders
- **Tracked Crews** – Displays ONLY the crews defined as Trackable in the selected crew profile and zooms in/out appropriately to follow these tracked crews at the interval specified in the refresh rate. When Emergency Monitoring is enabled from the Crew list, this theme is selected automatically.
- **User Selected Crews** - Displays all crews defined in the selected crew profile, both Visible and Trackable. However, crews are not tracked.

**Note:** The map is refreshed automatically when the user changes the crew selections.

**Crew Profiles drop-down** - Displays a list of existing crew profiles. A crew profile is a pre-defined list of crews to be displayed on the map. If the user selects either User Selected Crews or Tracked Crews in the Crews field, the crew profile is specified here. Otherwise, this field is disabled. When Emergency Monitoring is enabled from the Crew list, the EMERGENCY profile is automatically selected. The EMERGENCY profile will contain all crews for which Emergency Monitoring has been enabled. See **Emergency Monitoring** on page 4-3 for more information.

**Edit Custom Profile Crews link** - Allows users to create new crew profiles and edit existing ones. When the user clicks Edit Custom Profile Crews, the following window appear:



To create a new crew profile, the user clicks the Create New Profile radio button and enters a name for the profile.

One or more crews can be selected from the Available list box and moved to the Visible or Trackable list box using the Move button, or the Move All button can be used to move all crews. The Available list box displays all of the crews from the DHTMAPCREWVIEW table that are in the monitored dispatch area (and have not already been selected and moved to the Visible or Trackable list boxes). If a crew does not have a valid latitude/longitude, it will not be in the table and will not be displayed in the list.

When the user clicks Save, the profile is saved to the DHTMAPCREWSAVE table.

To edit an existing crew profile, the user selects the profile from the Edit Existing Profile drop-down list and modifies crew selections as needed, using the Move and Remove buttons. When the user clicks Save, the profile is saved to the DHTMAPCREWSAVE table.

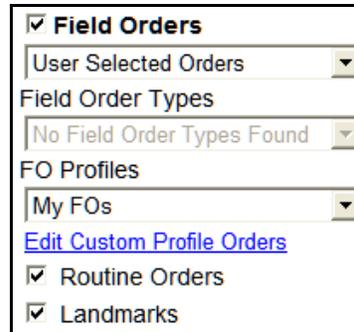
**Note:** The EMERGENCY profile cannot be edited. This profile is created automatically when Emergency Monitoring is enabled for one or more crews in the Crew List. To add or remove a crew from the EMERGENCY profile, you must enable or disable Emergency Monitoring for the crew in the Crew Status subsystem. All crews in the EMERGENCY profile are Trackable. See

**Emergency Monitoring** on page 4-3 for more information.

To delete an existing crew profile, the user selects the profile from the Edit Existing Profile drop-down list, and clicks Delete. The profile is deleted from the DHTMAPCREWSAVE table.

---

## Field Orders



Field Orders configuration window showing:

- Field Orders
- User Selected Orders (dropdown menu)
- Field Order Types (disabled dropdown menu: No Field Order Types Found)
- FO Profiles (dropdown menu: My FOs)
- [Edit Custom Profile Orders](#)
- Routine Orders
- Landmarks

**Field Orders checkbox** - Allows the user to show or hide field orders from the map display. When checked, field orders are displayed based on the theme selected in the Field Orders drop-down list.

**Field Orders drop-down** - Allows the user to select which field orders to display on the map. Available field order themes are:

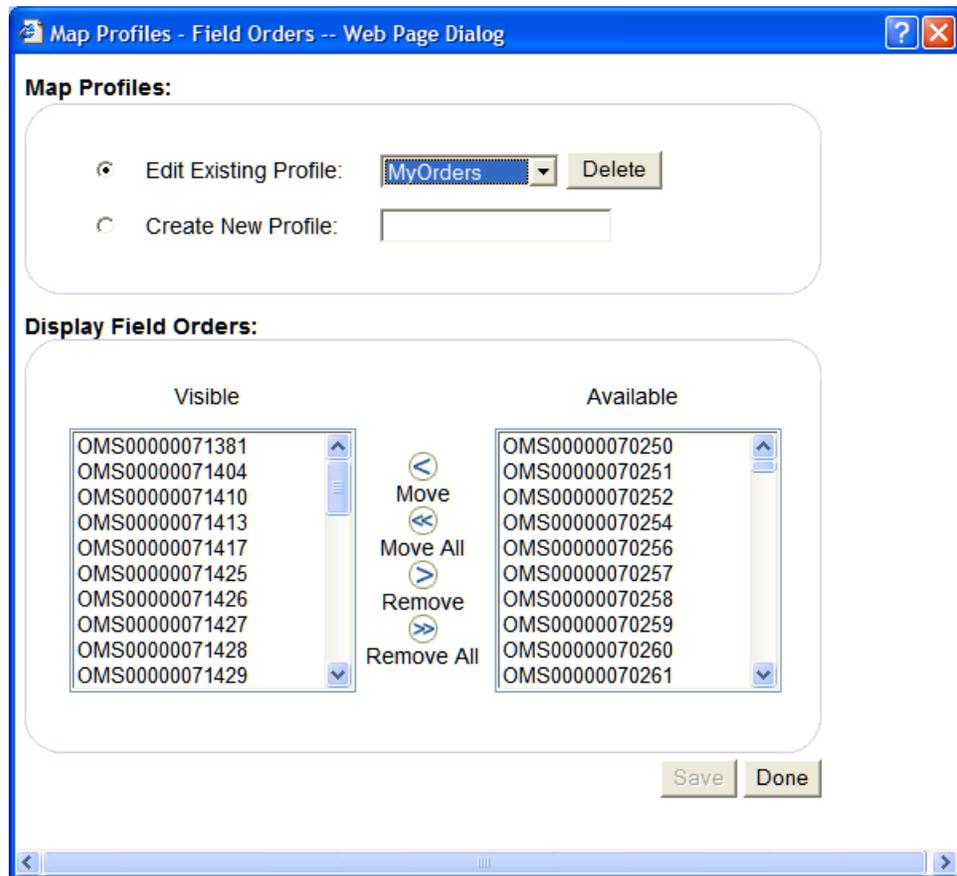
- All Orders (the default)
- Pending Orders
- Emergency Orders
- Non Emergency Orders
- Open Orders
- Orders by Type (displays orders of the type selected in the Field Order Types field)
- User Selected Orders (displays all orders defined in the selected FO Profile)

**Note:** The map is refreshed automatically when the user changes the field order selections.

**Field Order Types drop-down** - Displays a list of field order types. If the user selects the Orders by Type theme in the previous field, the field order type is specified here. Otherwise, this field is disabled.

**FO Profiles drop-down** - Displays a list of existing field order profiles. A field order profile is a pre-defined list of orders to be displayed on the map. If the user selects the User Selected Orders theme in the Field Orders drop-down, the field order profile is specified here. Otherwise, this field is disabled.

**Edit Custom Profile Orders function** - Allows users to create new field order profiles and edit existing ones. When the user clicks Edit Custom Profile Orders, the following window appears:



To create a new profile, the user clicks the Create New Profile radio button and enters a name for the profile. One or more field orders can be selected from the Available list box and moved to the Visible list box using the Move button, or the Move All button can be used to move all field orders. When the user clicks Save, the profile is saved to the DHTMAPFOSAVE table.

To edit an existing profile, the user selects the profile from the Edit Existing Profile drop-down list and modifies crew selections as needed, using the Move and Remove buttons. When the user clicks Save, the profile is saved to the DHTMAPFOSAVE table.

To delete an existing profile, the user selects the profile from the Edit Existing Profile drop-down list, and clicks Delete. The profile is deleted from the DHTMAPFOSAVE table.

## Routine Orders

The Routine Orders checkbox allows users to show or hide routine orders on the map. If checked, routine orders are displayed. Uncheck the box to hide routine orders. The box is checked by default.

## Landmarks

The Landmarks checkbox allows users to show or hide landmarks on the map. If this is checked, landmarks are displayed. Uncheck the box to hide landmarks. The box is checked by default.

---

## Reference Map

A small reference map is displayed at the bottom of the toolbar area. If the map display is zoomed in, the zoomed area is designated by a red shaded box in the reference map, as shown below:

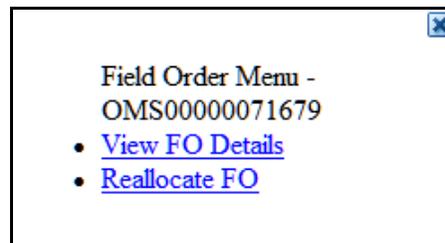


The user can click and drag the reference map to change the display area. The user can also double-click an area to move it to the center of the map.

## Pop-Up Menus

### Field Order Pop-Up Menu

When the user right-clicks a field order on the map, the following pop-up menu appears:



### View FO Details

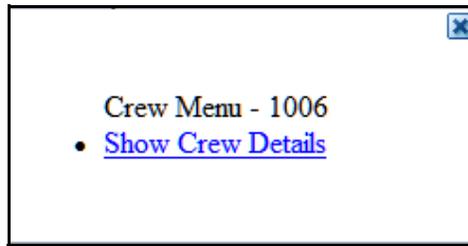
The View FO Details menu item displays the field order in browse mode. Refer to **Field Order Subsystem Menus** on page 2-1 for more details on browsing field orders.

### Reallocate FO

The Reallocate FO menu item invokes the **Reallocate** screen. Refer to **Field Order Subsystem** on page 2-1 for details on this screen.

### Crew Pop-Up Menu

When you right-click a crew on the map, the following pop-up menu appears:



### **Show Crew Details**

The Show Crew Details menu item displays the Crew Detail screen in the Crew Status subsystem. Refer to **Crew Status Subsystem** on page 4-1 for more details on browsing field orders.

## Route Replay

Route Replay allows the user to see a graphical representation of routes for selected crews and vehicles that have AVL data present. When the Route Replay menu option or toolbar icon is selected, the following screen appears:

Route Replay

Enter Dates and Crews or Vehicles

From Date 4/10/2008 From Time 2:36:30 PM

To Date 4/10/2008 To Time 2:36:30 PM

Crews

- 01375
- 02336
- 1001
- DEMO1
- DEMO2
- DEMO3
- MWMBASE

Vehicles

- DTRUK1
- DTRUK2
- DTRUK3

Select Crews and Vehicles by clicking .

OK Cancel

The user specifies the range of dates and times and the crews and/or vehicles to display. The Crews list box displays all crews from the crew tracking tables (DHTAVLRP and HHTAVLRP) with any field orders completed. The Vehicles list box displays all vehicles from the vehicle tracking data tables (DHTAVLTK and HHTAVLTK). The vehicle name is used to populate the list.

When the user clicks OK, the routes for the selected crews and vehicles are shown with field orders and AVL waypoints displayed along the route, as shown in the following figure:



The route is displayed in green. Waypoints display as small rectangles. When a waypoint is clicked, the following details appear:



## Route Replay Toolbar

The Route Replay toolbar displays the following options:



### Tools



**Zoom to Rectangle:** Zooms into an area of the map. When you click this button, the cursor changes to a crosshair. Click and drag the crosshair to draw a rectangle around the area you want enlarged. The map is redrawn to zoom into the selected area.



**Refresh Page:** Refreshes the page.



**Back to Mapping:** Exits route replay and returns the user to the map view.

### Vehicles/Crews

Each vehicle and crew listed in the Vehicles/Crew section is preceded by a checkbox. By default, the box is checked, indicating that the vehicle or crew is displayed on the map. If this is unchecked, the entire route is turned off for this vehicle and/or crew (waypoints, route, vehicle/crew, and field orders).



**Play:** Animates the entire route from start to finish. The map will automatically center itself prior to animation.



**Forward:** Moves the vehicle to the next waypoint/field order on the route. Before moving the vehicle forward, the map will automatically center itself on the next waypoint/field order.



**Back:** Moves the vehicle to the previous waypoint/field order on the route. Before moving the vehicle, the map will automatically center itself on the previous waypoint/field order.

## Data Fields

### Field Order Detail Fields

Field Name	Description
Field Order Number	The Oracle Utilities Mobile Workforce Management number of the order.
Crew	The crew assigned to the order. If this field is blank, the order is unassigned.
Field Order Type	The field order type.
Priority	The field order priority.

Field Name	Description
Latitude	The latitude of the field order address.
Longitude	The longitude of the field order address.

### Crew Detail Fields

Field Name	Description
Crew ID	The id of the crew.
Crew Status	The status of the crew.
Technician Name	The technician name.
Latitude	The latitude of the crew.
Longitude	The longitude of the crew.

## Interfaces

The Dispatch Workstation application receives field order status messages, crew update messages, and AVL location messages from the Server and passes them to the Mapping subsystem. The status or location of the field order/crew is updated in memory. The Dispatch Workstation application also sends Internal Notification messages to the mapping subsystem to update the map. The display is refreshed at the interval specified in Refresh Rate.

## Validation

None.

## Data Updates

The Dispatch Workstation application reads the field order and crew data directly from the database and the data is not updated in this function.

If map landmarks are created, the landmark data is stored in the map landmark database table (DHTMAPLM) for the logged on user. If map landmarks are deleted, the data is deleted from the map landmark database table.

Crew profiles are saved to DHTMAPCREWSAVE. Field order profiles are saved to DHTMAPFOSAVE. DHTMAPCREWUSER and DHTMAPFOUSER store the currently selected profile.

MapViewer retrieves the location of crews from DHTMAPCREWLOC and the location of field orders from DHTMAPFOLOC and RHTMAPFOLOC. The CURR\_LONG and CURR\_LAT from DHTCREW are copied to DHTMAPCREWLOC when an update happens in these columns via a database trigger. MapViewer does not read directly from DHTCREW.

# Chapter 13

## Timesheet Subsystem

The Supervisor's TimeSheet is a management tool that enables rapid review and printing of employee time sheet information. This chapter describes how to use the Timesheet screen to create and manage time sheet entries.

### Timesheet Screen

Line	Work Code	Corp Code	Pay Class	Hours	Muni Code	Additional Information
------	-----------	-----------	-----------	-------	-----------	------------------------

**Totals**

Shift Differential:	<input type="text"/>	Total Reg:	<input type="text"/>	Total T 1/2:	<input type="text"/>	Total 2T:	<input type="text"/>	Total Hours:	<input type="text"/>
Meal Allowance:	<input type="text"/>	Vehicle ID:	<input type="text"/>	Miles:	<input type="text"/>	Printed:	<input type="checkbox"/>		

### Function/Process Description

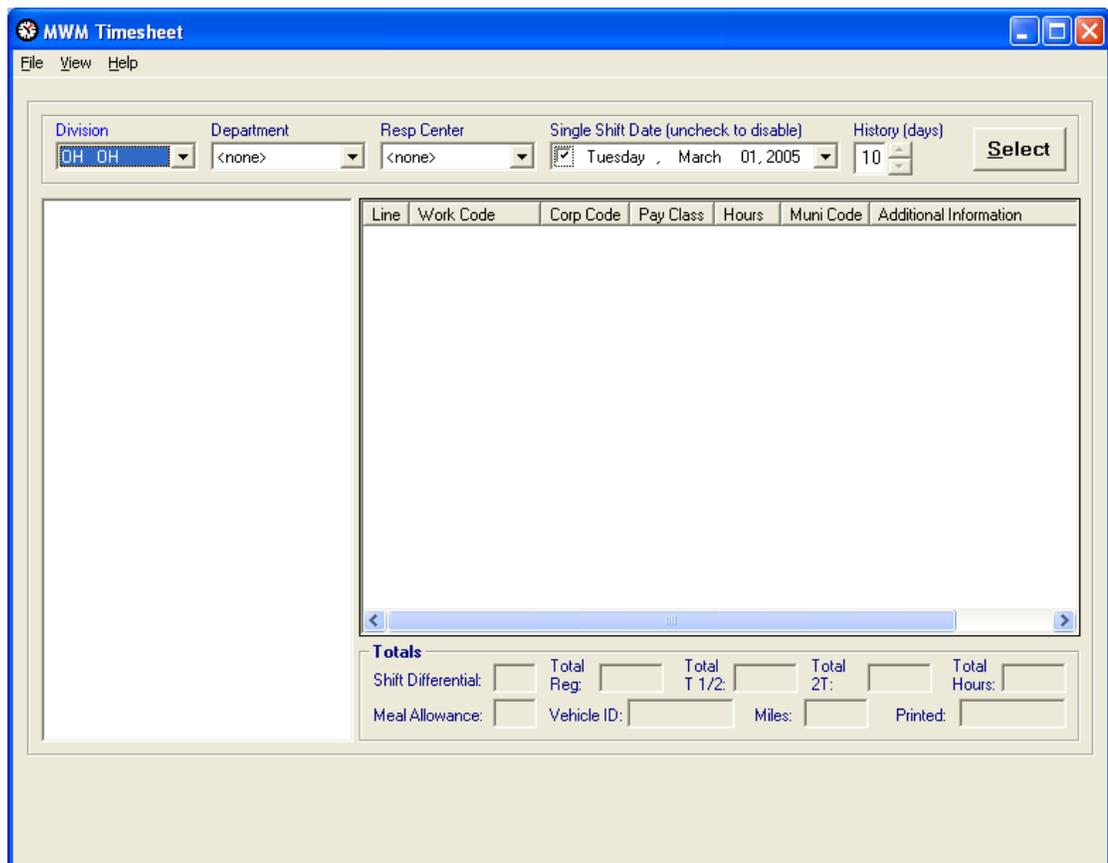
The Timesheet function displays a TreeView (left panel) of selected employees who may be filtered by division, department, responsibility center, a single user-defined date, or a period of time up to 99 days from the current date.

**Note:** This Timesheet screen does not display timesheet entries for Oracle Utilities Work and Asset Management (WAM) work orders. The WAM Crew Time Sheet can only be viewed in the Mobile Workstation.

Supervisor's timesheet options include the ability to expand only those employees with unprinted time sheets, mark for printing only those employees with unprinted time sheets, print a single time sheet, or batch print multiple time sheets. Printed output is via a Microsoft Excel template; Excel (version 8 or greater) must be installed on the TimeSheet user's desktop. The Excel template permits limited user customization without requiring changes to application code. The user can also select the output printer via a standard Windows printer dialog box.

To display a list of employees, the user *must* select a Division value. Department and Responsibility Center are optional selections. The user may select a single date using the pop-up calendar or, by unchecking the control, select history for up to 99 days from the current date. The number of history days selected will be saved locally for each user when the user exits the program.

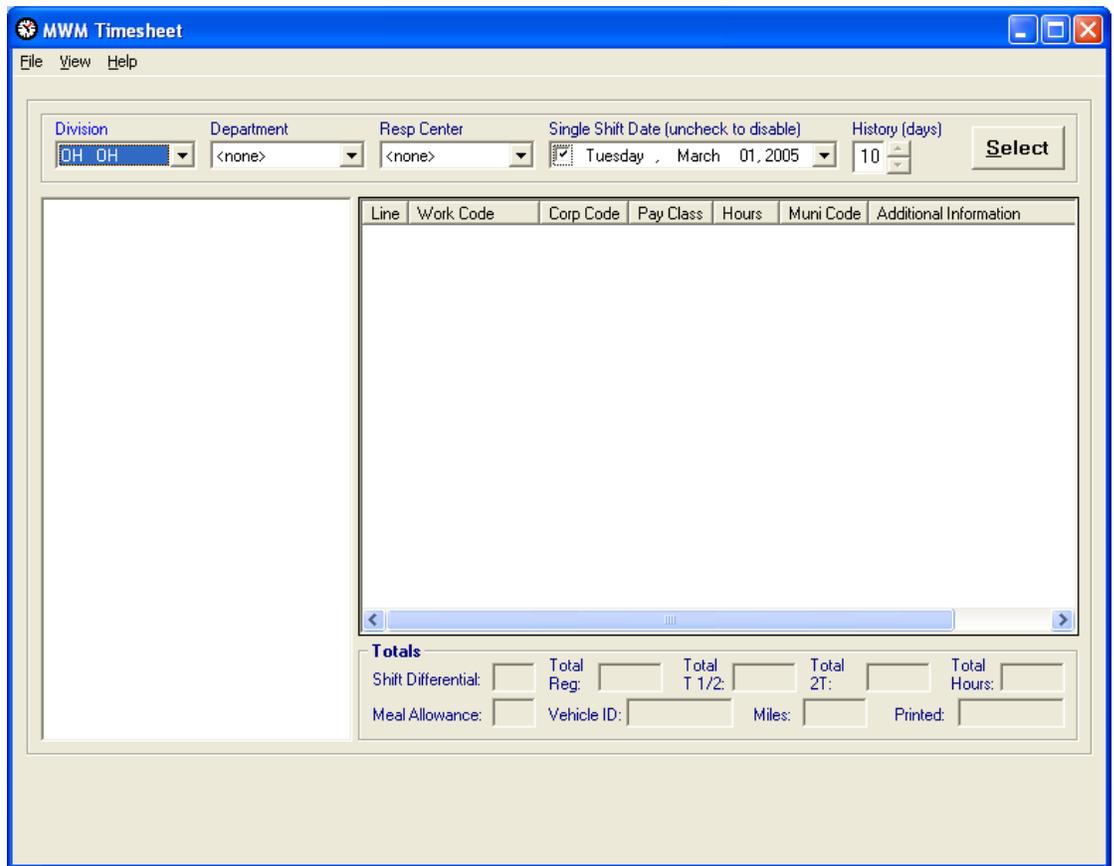
After selecting the appropriate parameters, the user clicks the Select button. If there are employees whose values match the selected parameters, the TreeView will be populated with a scrollable list of employees; other controls, including a *Print* button, will appear along the bottom of the screen as shown below.



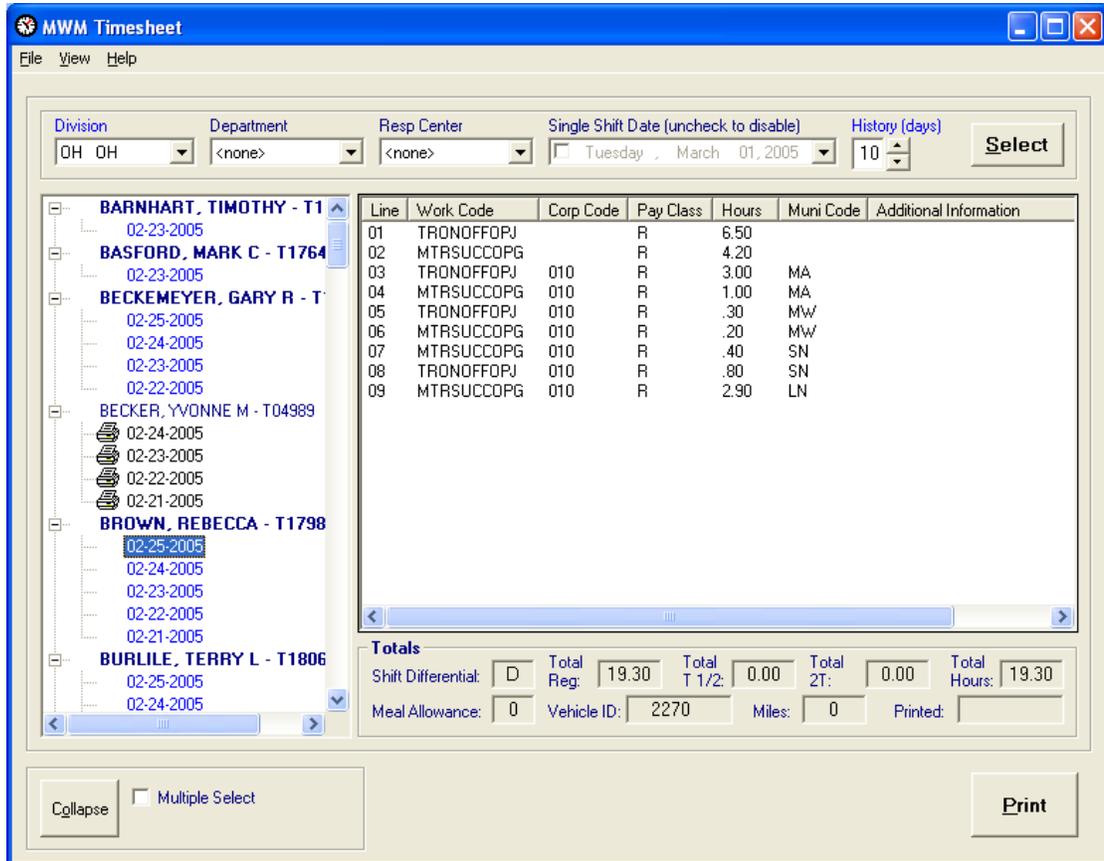
Employees with at least *one* unprinted time sheet will appear in bold dark blue type. Employees with printed timesheets or employees with no time sheet information will be displayed in normal dark blue type.

The user can expand only those employees with unprinted time sheets by selecting View on the menu and clicking Expand *Unprinted Only* or press the hotkeys *Ctrl* and *'U'* simultaneously. This changes the appearance of the *Expand* button at the lower left of the screen. *'Ctrl + U'* work as a toggle turning this feature on and off.

The following screen shows the results of clicking on the *Expand* button (Unprinted Only turned off). All nodes of the TreeView are displayed. Time sheets that have not been printed display the shift date in bright blue text. Previously printed time sheets display a printer icon next to the shift date, which is in black type.

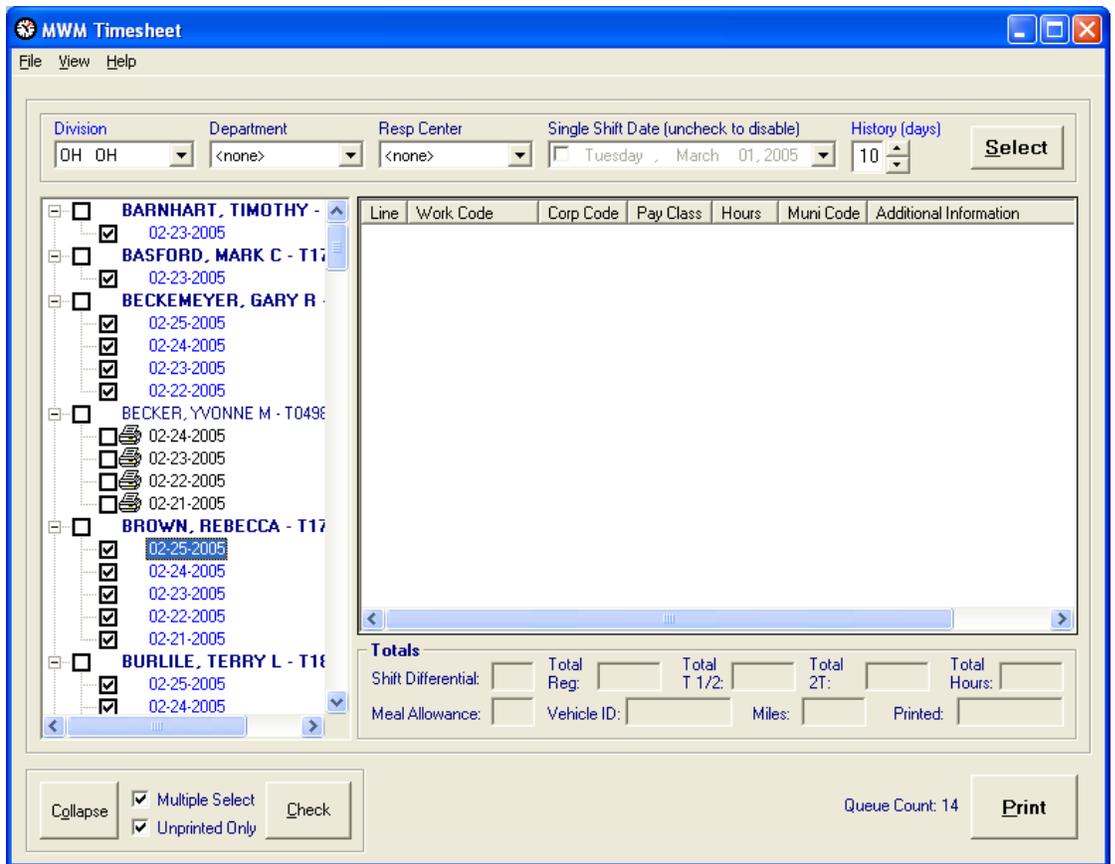


To see the time sheet detail for any displayed shift date, click on the shift date node in the TreeView. The panel to the right of the TreeView will display line item detail as shown in the next screen. The Totals panel below the list displays list totals. The date of the time sheet's last successful printing (if any) is displayed in the lower right of this panel.



To review a single time sheet, select a single employee / shift date in the TreeView. To print this time sheet information, press the *Print* button. The application will format the output using the Excel template and print the report. The *Print* button will change to a *Stop* symbol while this process is executing. If you click this *Stop* button, printing will halt *after the current* time sheet is printed. This has no effect when printing a single time sheet but, as we shall see, it does allow the user to stop the print process when batch printing multiple time sheets.

To print multiple time sheets (batch print), expand the TreeView by clicking on the *Expand* button. Check the *Multiple Select* checkbox. Optionally, check the *Unprinted Only* checkbox if the batch is to include only unprinted time sheets. Click the *Check* button. Answer *Yes* to the confirmation dialog. Depending on your checkbox settings, the appropriate time sheets (by shift date) will be checked. The number of time sheets in the print queue will appear to the left of the *Print* button as 'Queue Count: <count>'.  
 Queue Count: <count>



Alternatively, the user can manually check the appropriate shift date nodes to print time sheets for those dates. This can include any mix of unprinted and printed time sheets. *Note:* checking the employee name node has no effect.

To clear all existing nodes marked for printing, press the *Clear* button. Again, a confirmation dialog will appear. This prevents the user from accidentally unchecking multiple selections.

To batch print multiple time sheets, press the *Print* button. The *Print* button will change to a *Stop* symbol while this process is executing. If you click this *Stop* button, printing will halt *after the current* time sheet is printed. This permits the user to stop the batch printing process – it does not delete the remaining items in the queue, if any. Batch printing takes precedence over printing a single shift date.

A confirmation dialog will appear if the user attempts to select another set of employee data (with the *Select* button) if there are items remaining in the print queue.

## Data Fields

Data fields are described below:

Field Name	Description
STRA_PRINT_DATE	Last time sheet print date (or null). [DHTTMCRW]

## Interfaces

Requires a licensed copy of Microsoft Excel, version 8 (Office 97) or greater, to be installed on the user's machine.

---

## Validation

None.

## Data Updates

If a time sheet is successfully printed, the STRA\_PRINT\_DATE column in table DHTTMCRW will be updated with the current date.

# Chapter 14

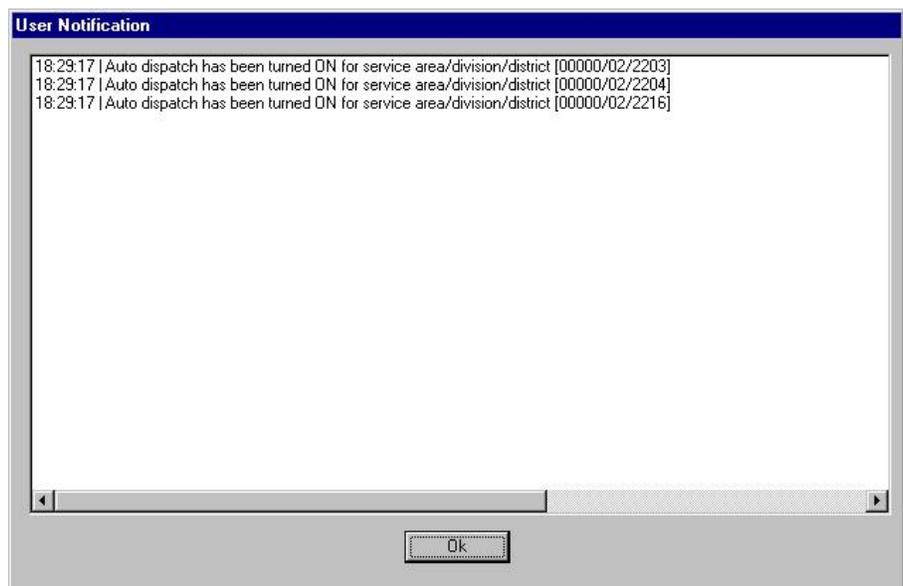
## Alarms and Notifications

This chapter describes the alarms and notifications sent to the Dispatch Workstation user. These alarms/notifications display as pop-up windows on the user's desktop.

### Notifications

#### Standard User Notification

Standard User Notification uses a generic notification screen that displays strings of message text.



The user notification is used for a variety of alerts and notifications (see list of messages below). The pass-through alerts from Oracle Real-time Scheduler (if applicable, use this dialog also). The user can dismiss the screen by pressing the OK button. This screen has no additional functionality. The uncovered service area and crews available for assignment warnings will only be sent to users with an access level of DISPATCHER\_SUPERVISOR or DISPATCHER.

---

## Notifications

Below is a list of user notifications. Click the notification name to see a description.

**Note:** Many notifications are also system messages. Refer to Appendix B for detailed descriptions of all messages, including system messages and user notifications.

**Address Match**

**Cancel Order for Non-Wireless Crew**

**Change Auto Dispatch**

**Corrupt Order Completion Transaction**

**Crews Available for Assignment**

**Crew Clear**

**Request for Emergency Assistance**

**Failed to Process Mobility Created Fo**

**Order has Been Rescheduled**

**Order Updated from the Mainframe**

**Rejected Transaction**

**Reschedule Order for Non-Wireless Crew**

**Router Connected/Disconnected to External Application**

**Router Listener Connected/Disconnected**

**Timed Event**

**Uncovered Service Areas**

## Warnings

Below is a list of warnings. Click the warning name to see a description.

**Note:** Some warnings are displayed as standard notifications and others are displayed in a dialog box specific to that message. Refer to Appendix B for detailed descriptions of all messages, including system messages, user notifications, and specific messages.

**Bond Violation**

**Broken Bond**

**Danger of Missed Appointment**

**Danger of Missed Commitment**

**Emergency Order Acknowledged**

**Emergency Order Not Acknowledged**

**Emergency Order Received**

**RTS Pass-Through Alert (if applicable)**

**Stop Overdue**

**Stop Late**

**Stop Disabled**

**Taking Too Long**

---

Unable to Dispatch Field Order

Update to Order Assigned to Logged-Out Crew

## Data Fields

The data fields vary between the notification screens.

## Interfaces

The Dispatch Workstation application will read any data needed directly from the database.

## Validation

None

## Data Updates

None



# Chapter 7

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## Shared Screens

This section describes the various screens that are shared by the Dispatch Workstation (DW) and Mobile Workstations (MW) applications. They include, but are not limited to, the field order screens used to browse, add, edit, and complete the various field orders. The field order screens are divided into four types:

- **Information Screens**
- **Primary Detail Screens**
- **Secondary Detail Screens**
- **Support Screens**

### Information Screens

This section covers the following information screens:

- **Common Information Screen (option 1)**
- **Common Information Screen (option 2)**
- **Common Information Screen (option 3)**
- **Common Order Header Pop-up Information Screen**
- **Gas Checks Monitor Information Screen**
- **Meter Information Screen (option 1)**
- **Meter Information Screen (option 2)**
- **Usage History Information Screen**
- **Task Notes Information Screen**
- **Planned Material Information Screen**

## Common Information Screen (option 1)

The screenshot shows a software window titled "Common View Screen" with a blue title bar. The window is divided into several sections:

- Customer Information:** Contains fields for account number (000000000000023580), phone number (4028424978), and a check digit checkbox. Below these is a list of customer details: KELSEY, SANGKI, 4807 W 83RD ST, Prairie Village, KS. There are also fields for "Conn:" and "Disc:".
- Order Information:** Contains fields for order number (4604315377) and meter ID (MR01). It includes "Requested By:", "Req Desc:", "Day:", "Evening:" (with value (555) 573-4422), "Other:", "Comments:", "Appt. Time:", "Commit Time:" (2006-10-27 23:59), and "Life Support:".
- Site Information:** Contains a "Directions:" field, "Facility Point:", "Service Desc:", "Service Status:", "Svc Fac:", and a "Landlord Agreement" checkbox.
- Status Times:** A row of input fields for "Disp:", "Ack:", "Enroute:", "Onsite:", and "Cmpt:".
- Buttons:** A grid of buttons including "Send", "Common View", "Detail View", "Order Header", "Meter Information", "Usage History", "Crew Time", "Cancel", "Equipment", "Dispatch", "Reassign", and "Cancel Order".

### Function/Process Description

The Common Information screen displays data that is common to all Field Order types (e.g. CON, DIS, CUT, MTX, GMI, UGL, etc.). It is displayed when the user presses the Common View button.

If the initial field order screen to display (InitialFieldOrderScreen) parameter is set to 'C', the Common Information screen will be displayed whenever an order is double-clicked on the field order list. All data on this screen is read-only.

### Data Fields

Field Name	Description
Customer Information	
MWM Order #	Order number assigned by the Oracle Utilities Mobile Workforce Management application.
Account Number	Customer's account number on the order. It is a concatenation of the Customer number, account number, and agreement number.
Chk Digit	The check digit associated with the customer's account number.

<b>Field Name</b>	<b>Description</b>
Customer Name and Address	Customer's name and service address on the order. This field includes the customer's full name, name overflow, service address, city, and state. Not all the data may be shown on all orders. The name overflow can contain a co-customer name if a residential customer, a doing business as name for non-residential customers, or blank. If blank, it will not be displayed on the screen.
Conn	The connection date associated with the customer on the order.
Disc	The disconnection date associated with the customer on the order.
Site Information	
Directions	The site directions associated with the customer's site.
Facility Pt	The facility point associated with the customer's site.
Serv Desc	The service description associated with the customer's site.
Serv Status	The service status associated with the customer's site.
Svc Fac Pt	The service facility point (pole number) associated with the customer's site.
Landlord Agreement	If the checkbox is checked, it indicates a landlord agreement is associated with the site.
Order Information:	
Request Number	Order number assigned by the external application (e.g. work tracking, Host System, etc.).
Order Type	The order type code of this order.
Requested By	The name of the person who requested the order.
Req. Desc	The request description associated with the order
Day	A day phone number where the requestor of the order can be reached.
Evening	An evening phone number where the requestor of the order can be reached.
Other	Another phone number where the requestor of the order can be reached.
Comments	Comments (order remarks) associated with the order.
Appt Time	The appointment time associated with the order. The appointment time is comprised of an appointment finish date, appointment start time, and appointment finish time. In order to meet the appointment, the crew must arrive at the customer's site between the appointment start date/time and appointment finish date/time. Not all orders have appointments. If no appointment exists for the order, these fields will be blank.

Field Name	Description
Commit Time	The commitment time associated with the order. The commitment time is comprised of a due date and time. In order to meet the commitment, the order must be complete by the commitment time. Not all orders have commitments. If no commitment exists for the order, these fields will be blank.
Life Support	Life Support information associated with the customer on the order.
Status Time Information:	
Disp	The time the field order was dispatched to a service rep.
Ack	If the order is an emergency order, this is the time the service rep. Acknowledged the receipt of the order.
Enroute	The time the service rep went enroute to the order.
Onsite	The time the service rep arrived at the premise.
Cmpl	The time the order was completed.

## Buttons

Button	Description
Send	This button is used to save the completion data and send it to the Oracle Utilities Mobile Workforce Management Server Application (Server). Since the orders must be completed from the primary detail screen, this button is always disabled. Use the detail view button to navigate back to the appropriate Primary Detail screen based on the order type
Common View	This button is used to navigate to the Common Information screen. Since the user is already on the Common Information screen, this button is disabled.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type. This button is always enabled.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. This button is always enabled if there is meter data associated with the order.
Usage History	This button is used to navigate to the Usage History Information screen. This button is always enabled.
Crew Time	This button is disabled in the Information screens.
Equipment	This button is used to navigate to the Equipment screen. This button is always enabled.
Cancel	This button is used to cancel the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list.  In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user will be prompted to confirm the cancel status.

---

Button	Description
Dispatch	This button is used to dispatch the order that is displayed. This button is enabled in Browse mode in the Dispatch Workstation, if the order is assigned and the status of the order is not Complete, Trying, or Being Recalled. This button is always disabled in the Mobile Workstation.
Reassign	This button is used to reassign the order that is displayed. The Reassignment screen is displayed when this button is selected. This button is enabled in Browse mode in the Dispatch Workstation, if the status of the order is not Complete, Trying, or Being Recalled. This button is always disabled in the Mobile Workstation.
Cancel Order	This button is used to cancel the order that is displayed. The Cancel Order screen is displayed when this button is selected. When an order is cancelled, the completion status is set to Complete and the tracking status is set to Cancelled. This button is enabled in Browse mode in the Dispatch Workstation, if the status of the order is not Complete, Trying, or Being Recalled. This button is always disabled in the Mobile Workstation.

### Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive. There are no external interfaces.

### Validation

There is no validation for this screen. All fields are read-only and cannot be modified.

### Data Updates

There are no data updates for this screen. All fields are read-only and cannot be modified.

## Common Information Screen (option 2)

### Function/Process Description

This screen is used to display common information for Oracle Utilities Work and Asset Management (WAM) orders. It is displayed when the user presses the Common View button.

If the initial field order screen to display (InitialFieldOrderScreen) parameter is set to 'C', the Common Information screen is displayed whenever an order is double-clicked on the field order list. All data on this screen is read-only.

### Data Fields

Data fields on this screen are the same as those defined for the previous screen, Common Screen (option 1). The only difference between these two screens is the buttons that appear at the bottom of the screen.

### Buttons

Button Name	Button Description
Send	This button is used to save the completion data and send it to the Server. Since the orders must be completed from the primary detail screen, this button is always disabled. Use the Detail View button to navigate back to the WAM Main Detail primary completion screen.

<b>Button Name</b>	<b>Button Description</b>
Common View	This button is used to navigate to the Common Informational screen. Since the user is already on the Common Informational screen, this button is disabled.
Detail View	This button is used to navigate to the WAM Main Detail field order screen. This button is always enabled.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Stock Charges	This button is used to navigate to the WAM Stock Charges secondary completion screen. This button is always enabled.
Direct Charges	This button is used to navigate to the WAM Direct Charges secondary completion screen. This button is always enabled.
Crew Time	This button is disabled on the Informational screens.
Cancel	This button is used to dismiss this screen.
Notes	This button is used to navigate to the WAM Task Notes informational screen. Since the user is already on the Task Notes Informational screen, this button is disabled.
Material	This button is used to navigate to the WAM Planned Material informational screen. This button is always enabled.

### **Interfaces**

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive. There are no external interfaces.

### **Validation**

There is no validation for this screen. All fields are read-only and cannot be modified.

### **Data Updates**

There are no data updates for this screen. All fields are read-only and cannot be modified.

## Common Information Screen (option 3)

The screenshot shows a software window titled "Common View Screen" with the following data fields:

- Name:** MARTIN LEE
- Order Type:** CO Health Symptoms
- Primary Phone:** (empty)
- Addr:** 1200 GREEN PARK DR CENTRAL POINT,OR
- Requested By Phone:** 5031112222
- City:** (empty)
- Appt.:** 08:00 - 18:00
- Bill Account:**
  - Account:** 32523371-0
  - Primary Circuit:** (empty)
  - District:** 111
  - Zone:** /Rec - OR - 11146
  - House:** (empty)
  - Key #:** (empty)
  - Key At:** (empty)
  - Prem Entr:** (empty)
- Order Information:**
  - Order #:** 00000000018368794
  - CAD #:** 000000054
  - Priority:** 1
  - Crew:** (empty)
  - Taken Date:** 2003/07/26 13:54:09
  - Taken By:** HOST SYSTEM
  - Request Date:** 2004/08/09 02:00:00
  - Order Remarks:** (empty)
- Miscellaneous Account Information:**
  - Prev Cust:** (empty)
  - Pole:** (empty)
  - Next Read:** (empty)

At the bottom of the screen are three buttons: "Detail View", "Modify", and "Close".

### Function/Process Description

The Common Information screen displays data that is common to all Field Order types (e.g., GEA4, MR02, SC07).

It is displayed when the user presses the Common View button. If the initial field order screen to display (InitialFieldOrderScreen) parameter is set to 'C', the Common Information screen will be displayed whenever an order is double-clicked on the field order list. All data on this screen is read-only.

### Data Fields

Field Name	Description
Name	The customer's first and last name.
Order Type	The type of order being worked.
Primary Phone	The customer's primary phone number.
Addr	The customer's service street address.
Requested by Phone	The phone number used to request the order.
City	The customer's service city and postal code.
Appt.	The appointment time block associated with the order. Not all orders have appointments. If no appointment exists for the order, this field will be blank.
Bill Account	

<b>Field Name</b>	<b>Description</b>
Account	The customer's billing account number.
Primary Circuit	The primary circuit ID of service.
District	The customer's service district.
Zone	The customer's service area.
House	The customer's house description (from premise description table DHTPREMD).
Key #	The access key number.
Key At	The location of the access key: first line of customer's address.
Prem. Entr.	The first line of customer's address.
Order Information	
Order #	The order number assigned by the Oracle Utilities Mobile Workforce Management application.
CAD #	The order number assigned by the Oracle Utilities Mobile Workforce Management application.
Priority	The order priority assigned by the Oracle Utilities Mobile Workforce Management application.
Crew	The crew identifier.
Taken Date	The date / time that the order was initially taken by an external application, e.g., Host System, OMS, etc.
Taken By	The identifier for the order originator (person / system / application, etc.).
Request Date	The date the order was requested.
Order Remarks	Order specific remarks.
Miscellaneous Account Information	
Prev Cust	The service's previous customer information.
Pole	The service customer's location ID number.
Next Read	The next service read date.

## Buttons

<b>Button Name</b>	<b>Description</b>
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type. This button is always enabled.
Modify	This button is used to navigate to the Common Information Change screen. This button is only enabled in Complete Mode.
Close	This button is used to close this screen.

---

## **Interfaces**

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive. There are no external interfaces.

## **Validation**

There is no validation for this screen. All fields are read-only and cannot be modified.

## **Data Updates**

There are no data updates for this screen. All fields are read-only and cannot be modified.

## Common Order Header Pop-up Information Screen

The screenshot shows a window titled "Order Header Screen" with the following fields and values:

- Order Number: 000012896
- Request Number: 000000000965745444-001 (CRO)
- Account Number: 61758580-001-0001 (Chk Digit: )
- Customer Name and Address: GABE DAWSON, 2940 OLD SISKIYOU HWY, ASHLAND,OR
- Req Desc: THELMA AND LOUISE MEET FAT B
- Comments: (empty)
- Directions: TOWNSHIP 40; RANGE 2EAST, SECTION 8.

A "Close" button is located at the bottom center of the window.

### Function/Process Description

The Order Header Popup screen displays a subset of the information from the Common Information screen as a convenient reference for the User.

This screen is displayed when the Order Header button is selected. All data on this screen is read-only. This popup screen will be displayed on top of the current screen being displayed, and will be dismissed when the close button is selected.

### Data Fields

Field Name	Description
MWM Order #	Order number assigned by the Oracle Utilities Mobile Workforce Management application.
Request Number	Order number assigned by the external application (e.g. work tracking, Host System, etc.).
Order Type	The order type code of this order.
Customer Name and Address	Customer's name and service address on the order. This field includes the customer's full name, name overflow, service address, city, and state. Not all the data may be shown on all orders. The name overflow can contain a co-customer name if a residential customer, a doing business as name for non-residential customers, or blank. If blank, it will not be displayed on the screen.
Req. Desc	The request description associated with the order
Comments	Comments (order remarks) associated with the order.
Directions	The site directions associated with the customer's site.

---

## Buttons

Button Name	Description
Close	This button is used to close the order header popup screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive. There are no external interfaces.

## Validation

There is no validation for this screen. All fields are read-only and cannot be modified.

## Data Updates

There are no data updates for this screen. All fields are read-only and cannot be modified.



## Meter Information Screen (option 1)

### Function/Process Description

The Meter Information screen is for displaying more detailed information pertaining to meters.

This is an information screen. All fields on the screen are read-only, except for the Meter List. This field is enabled so the user can view all information for all meters.

### Data Fields

Field Name	Description
Meter Details	
Meter Number	The number of the customer's meter on this order
Phase	The phase associated with the customer's meter on this order
Form	The form associated with the customer's meter on this order.
MERC	The MERC associated with the customer's meter on this order.
Meter Loc	The location of the meter of the customer's meter on this order. The location code will be decoded using the meter location validation table (DHTMTRLO).
Rate Sched	The rate schedule for billing purposes associated to the meter on this order.
Route ID	The cost center and route number for the meter on this order.

<b>Field Name</b>	<b>Description</b>
Meter Access 1	The first access code associated with the customer's meter on this order. The access code is decoded using the meter access validation table (DHTMTRRI).
Meter Access 2	The second access code associated with the customer's meter on this order. The access code is decoded using the meter access validation table (DHTMTRRI).
Special Instr	The special instructions associated with the customer's meter on this order.
Previous Reading Information	
Previous Readings	The previous reading for each register type associated with the customer's meter on the order.
Register	The register associated with the reading.
Last Read Date	The date this reading was taken.
Last Read	The last reading for the register type.
Unbilled Usq	Any unbilled usage for the register type.

## Buttons

<b>Button Name</b>	<b>Description</b>
Send	This button is used to save the completion data and send it to the Server. Since the orders must be completed from the primary detail screen, this button is always disabled. Use the detail view button to navigate back to the appropriate Primary Detail screen based on the order type
Common View	This button is used to navigate to the Common Information screen. This button is always enabled.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type. This button is always enabled.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. Since the user is already on the Meter History information screen, this button is disabled.
Usage History	This button is used to navigate to the Usage History Information screen. This button is always enabled.
Equipment	This button is used to navigate to the Equipment screen. This button is always enabled.
Crew Time	This button is disabled in the Information screens.
Cancel	This button is used to cancel the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list.

---

Button Name	Description
Dispatch	This button is always disabled. Orders cannot be dispatched from this screen.
Reassign	This button is always disabled. Orders cannot be reassigned from this screen.
Cancel Order	This button is always disabled. Orders cannot be cancelled from this screen.

### Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive. There are no external interfaces.

### Validation

There is no validation for this screen. All fields are read-only, except the meter list, and cannot be modified. The meter list allows the user to select from the meters on the order and display the information corresponding to the selected meter.

### Data Updates

There are no data updates for this screen. All fields are read-only and cannot be modified.

## Meter Information Screen (option 2)

The screenshot shows a window titled "Meter Info Screen" with the following fields and sections:

- Customer Information:** Name: MARTIN LEE, Order Type: CO Health Symptoms, Service: (empty), Addr: 1200 GREEN PARK DR CENTRAL POINT, OR, Contact: 5031112222, City: (empty), Appt.: 08:00 - 18:00.
- Select Meter:** A list box containing "0N497624G". Other fields include Status, Rem Port, Service Point Type: Gas, Mfr: (empty), Loc: BASEMENT, Read Date: (empty), and Phase: Single Phas.
- Table:** A table with columns: Reading Usage, Reading Type, Mult, Dials, Last Reading. It contains two empty rows.
- Meter Read Instructions:** A text box containing the word "FIELD".
- Premise Information:** A section with a checkbox for "Estimated Meter at Premise" (unchecked), Acct Type: (empty), and Premise Entrance: (empty).
- Buttons:** "Modify" and "Close" buttons at the bottom.

### Function/Process Description

The Meter Information screen is for displaying more detailed information pertaining to meters.

This is an information screen. All fields on the screen are read-only, except for the Meter List. This field is enabled so the user can view all information for all meters.

### Data Fields

Field Name	Description
Common Information	
Name	This field contains the customer name.
Order Type	This field contains the order type description. The field is populated using the order type validation table (DHTFOTYP) based on the order type code.
Service	This field contains the service phone number.
Addr.	This field contains the customer address (street).
Contact	This field contains the contact phone number.
City	This field contains the city (city, zip).
Appt.	The appointment time associated with the order.
Select Meter	
Meter numbers list box	This field contains the available meters of the order.

<b>Field Name</b>	<b>Description</b>
Status	This field contains the status description of the selected meter
Rem Port	This field contains the remote port of the selected meter. The field is populated using the remote port validation table (DHTMTRRP) based on the remote port code.
Service Point Type	Type of service associated with the order. Ex. "gas", "electric".
Mfgr:	This field contains the manufacturer.
Loc:	This field contains the meter location of the selected meter. The field is populated using the location validation table (DHTMTRLO) based on the location code
Read Date	Read date associated with the usage
Phase:	The phase associated with the customer's meter on this order.
Meter Info	
Reading Usage	This field contains the reading usage for this meter.
Reading Type	This field contains the reading type for this meter.
Mult	In some homes the monthly or bi-monthly use may be more than the meter installed can register so the meter would have a meter multiplier labeled on the front. That multiplier is usually 10. You must then multiply the answer you get for your use by the multiplier factor to get the actual amount you will be billed for.
Dials	The number read from meter dials.
Last Reading	The last reading for the register type
Meter Read Instructions	This field contains the instructions for this meter read.
Premise Information	
Estimated Meter at Premise	Checkbox that indicates if there was an Estimated Meter at premise.
Acct Type	The Account Type
Premise Entrance	This field contains the premise entrance of the order. The field is populated using the premise entrance validation table (DHTPREMD) based on premise entrance code.

## Buttons

<b>Button Name</b>	<b>Description</b>
Modify	This button is used to navigate to the Meter Information Change screen. This button is only enabled in Complete Mode.
Close	This button is used to close this screen.

---

## **Interfaces**

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive. There are no external interfaces.

## **Validation**

There is no validation for this screen. All fields are read-only and cannot be modified.

## **Data Updates**

There are no data updates for this screen. All fields are read-only and cannot be modified.

## Usage History Information Screen

Read Date	Source	Type	Conds	Elpsd Days	KwH..	KwH Usage	KwH On Usg	KwH Off Usg	Inv Amt
2002/07/03 00...	I	V		29	070745	000000162	000000162	000000162	00000016.09
2002/08/06 00...	I	V		34	070967	000000222	000000222	000000222	00000019.23
2002/09/03 00...	S	V	M	28	071303	000000336	000000336	000000336	00000025.26
2002/10/04 00...	I	V	VR	31	071323	000000020	000000020	000000020	00000008.64
2002/11/01 00...	I	V		28	071509	000000186	000000186	000000186	00000017.31
2002/12/06 00...	I	V		35	071861	000000352	000000352	000000352	00000025.88
2003/01/09 00...	I	V		34	072401	000000540	000000540	000000540	00000037.07
2003/02/06 00...	I	V		28	072673	000000272	000000272	000000272	00000021.75
2003/03/06 00...	I	V		28	072906	000000233	000000233	000000233	00000019.74
2003/04/04 00...	I	V		29	073084	000000178	000000178	000000178	00000016.87
2003/05/06 00...	I	V		32	073268	000000184	000000184	000000184	00000017.19
2003/06/04 00...	I	V		29	073424	000000156	000000156	000000156	00000015.73
2003/07/07 00...	I	V		33	073602	000000178	000000178	000000178	00000016.67

Control Panel: Send, Common View, Detail View, Order Header, Meter Information, Usage History, Crew Time, Cancel, Equipment, Dispatch, Reassign, Cancel Order

### Function/Process Description

The Usage History screen is for displaying historical usage information associated with the service on the order.

This screen is not accessible for all order types. If the order has usage history, this screen will display up to thirteen months of usage history. All data on the screen is read-only.

### Data Fields

Field Name	Description
Usage History	13 months of usage history
Read Date	Read date associated with the usage.
Source	Read source associated with the usage occurrence.
Type	Read type code associated with the usage occurrence.
Conds	Condition codes associated with the usage occurrence.
Elpsd Days	Number of days associated with the usage occurrence.
KWH	KWH meter reading associated with the usage occurrence.
KWH Usage	KWH usage associated with the usage occurrence.
KWH On Usg	KWH On usage associated with the usage occurrence.

Field Name	Description
KWH Off Usg	KWH Off usage associated with the usage occurrence.
Inv Amt	Amount of the invoice associated with the usage occurrence.

## Buttons

Button Name	Description
Send	This button is used to save the completion data and send it to the Server. Since the orders must be completed from the primary detail screen, this button is always disabled. Use the detail view button to navigate back to the appropriate Primary Detail screen based on the order type
Common View	This button is used to navigate to the Common Information screen. This button is always enabled.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type. This button is always enabled.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. This button is always enabled if there is meter data associated with the order.
Usage History	This button is used to navigate to the Usage History Information screen. Since the user is already on the Usage History Information screen, this button is disabled.
Crew Time	This button is disabled in Information screens.
Equipment	This button is used to navigate to the Equipment screen. This button is always enabled.
Cancel	This button is used to cancel the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list.
Dispatch	This button is always disabled. Orders cannot be dispatched from this screen.
Reassign	This button is always disabled. Orders cannot be reassigned from this screen.
Cancel Order	This button is always disabled. Orders cannot be cancelled from this screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive. There are no external interfaces.

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## **Validation**

There is no validation for this screen. All fields are read-only, except the meter list, and cannot be modified. The meter list allows the user to select from the meters on the order and display the usage history corresponding to the selected meter.

## **Data Updates**

There are no data updates for this screen. All fields are read-only and cannot be modified.

## Task Notes Information Screen

### Function/Process Description

The Task Notes Informational screen displays notes associated with a Work and Asset Management (WAM) field order.

The information displayed on this screen is captured in the host application and cannot be modified in Oracle Utilities Mobile Workforce Management; all data displayed on this screen is read-only.

### Data Fields

Field Name	Field Description
WOT ( <i>Type of Work</i> )	The WAM Work Type code Note (not the MWM order type code) for the order being displayed.
WOT ( <i>Work Order #</i> )	The WAM Work Order number for the order being displayed.
WOT ( <i>Work Order Task #</i> )	The WAM Work Order Task number for the order being displayed.
FO#	The MWM Field Order number for the order being displayed.
Priority	The priority code associated with the MWM order type for the order being displayed.
Crew	The crew assigned to the order being displayed. If the order is not assigned to a crew, this field is empty.

Field Name	Field Description
Due On	The Due On date/time for the order being displayed.
Task Notes List	The task notes associated with the field order being displayed. Each row in the list represents one task note.
Note Type	The type of task note.
Description	The task note text.

## Buttons

Button Name	Button Description
Send	Saves the completion data and sends it to the Server. Since orders must be completed from the primary detail screen, this button is always disabled. To send data, use the Detail View button to navigate back to the WAM Main Primary Detail screen and then click the Send button from that screen.
Common View	Displays the Common Information screen. This button is always enabled.
Detail View	Displays the WAM Main Primary Detail field order screen. This button is always enabled.
Order Header	Displays the Order Header dialog. This button is always enabled.
Stock Charges	Displays the WAM Stock Charges secondary completion screen. This button is always enabled.
Direct Charges	Displays the WAM Direct Charges secondary completion screen. This button is always enabled.
Crew Time	This button is disabled in Information screens.
Cancel	Dismisses this screen and returns the user to the WAM Main Detail screen.
Notes	Displays the WAM Task Notes informational screen. Since the user is already on the WAM Task Notes screen, this button is disabled.
Material	Displays the WAM Planned Material informational screen. This button is always enabled.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. This screen is populated from the field order on the hard drive. There are no external interfaces.

## Validation

There is no validation for this screen. All fields are read-only, and cannot be modified.

## Data Updates

There are no data updates for this screen. All fields are read-only and cannot be modified.

## Planned Material Information Screen

WOT: N 0800500 01 FD#: 00000000000002371 Priority: 3 Crew: Due on: 2008/07/31 00:00

Item	Stock	Store	Est	Description
------	-------	-------	-----	-------------

Buttons: Send, Common View, Detail View, Order Header, Stock Charges, Direct Charges, Crew Time, Cancel, Notes, Material

### Function/Process Description

The Planned Material information screen displays information about planned materials associated with a field order, including the material planned to be used for the job and the storeroom that the material will be drawn from.

The information displayed on this screen is captured in the host application and cannot be modified in Oracle Utilities Mobile Workforce Management; all data displayed on this screen is read-only.

### Data Fields

Field Name	Field Description
WOT ( <i>Type of Work</i> )	The WAM Work Type code (not the MWM order type code) for the order being displayed.
WOT ( <i>Work Order #</i> )	The WAM Work Order number for the order being displayed.
WOT ( <i>Work Order Task #</i> )	The WAM Work Order Task number for the order being displayed.
FO#	The MWM Field Order number for the order being displayed.
Priority	The priority code associated with the MWM order type for the order being displayed.

<b>Field Name</b>	<b>Field Description</b>
Crew	The crew assigned to the order being displayed. If the order is not assigned to a crew, this field is empty.
Due On	The Due On date/time for the order being displayed.
Planned Material List	The planned material associated with the order being displayed. Each row in the list represents one planned material item.
Item	The item number for the planned material item associated with the order. This is a sequential number assigned to the planned material item when it is received from the Oracle Utilities Work and Asset Management application.
Stock	The stock code number for the planned material item associated with the order.
Store	The storeroom number for the planned material item associated with the order.
Est	The unit of issue for the planned material item associated with the order.
Description	The description of the planned material item associated with the order. The description value sent from Oracle Utilities Work and Asset Management is truncated to 200 characters.

## Buttons

<b>Button Name</b>	<b>Button Description</b>
Send	Saves the completion data and sends it to the Server. Since the orders must be completed from the primary detail screen, this button is always disabled. To send data, use the Detail View button to navigate back to the WAM Main Primary Detail screen.
Common View	Displays the Common Information screen. This button is always enabled.
Detail View	Displays the WAM Main Detail field order screen. This button is always enabled.
Order Header	Displays the Order Header dialog. This button is always enabled.
Stock Charges	Displays the WAM Stock Charges secondary completion screen. This button is always enabled.
Direct Charges	Displays the WAM Direct Charges secondary completion screen. This button is always enabled.
Crew Time	This button is disabled on the Information screens.
Cancel	Dismisses this screen and returns the user to the WAM Main Detail screen.
Notes	Displays the WAM Task Notes Informational screen. This button is always enabled.
Material	Displays the WAM Planned Material Informational screen. Since the user is already on the screen, this button is disabled.

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## **Interfaces**

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive. There are no external interfaces.

## **Validation**

There is no validation for this screen. All fields are read-only, and cannot be modified.

## **Data Updates**

There are no data updates for this screen. All fields are read-only and cannot be modified.

## Primary Detail Screens

- Collections Primary Detail Screen
- Electric Trouble Primary Detail Screen
- Gas Emergency Primary Detail Screen
- Ground Level Inspection Primary Detail Screen
- Meter Miscellaneous Primary Detail Screen
- Meter Read Primary Detail Screen
- Meter Set/Change/Remove Primary Detail Screen (option 1)
- Meter Set/Change/Remove Primary Detail Screen (option 2)
- Meter Test Primary Detail Screen
- POU/BREAK Primary Detail Screen
- Underground Locate Primary Detail Screen
- Water Heater Repair Primary Detail Screen
- WAM Main Detail Screen
- CC&B Primary Detail Screen

### Collections Primary Detail Screen

**Collections**

**Collections Details**

Total To Collect: 0.00

Total Account Balance: 0.00

Min Amt Required for Pay Plan: 0.00

Nbr NSF Checks:

Special Instructions

**Payment History**

Date	Amt
	0.00
	0.00
	0.00

#Times Fielded:

#Months Delinquent:

**Collections Completion**

Action Taken:

Cash:

Check:

Tot. Collected:

**Meter Reading**

Meter Number:

Register:

Reading:

**Completion Info**

Complete  Incomplete Incompletion Reason:

Additional Work Performed Standard Remarks Text:

Remarks:

Review Required By:   Business Center Review  Billable

Send Common View **Detail View** Order Header Meter Information Usage History Crew Time Cancel

Equipment Dispatch Reassign Cancel Order

## Function/Process Description

The Collections Primary Detail screen is for displaying and completing the CUT and FFN field orders.

This is a primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the completion fields are enabled for input.

## Data Fields

Field Name	Description
Collection Details	
Payment Plan Total To Collect	This field contains the total amount to collect. If the customer is already on a payment plan, the label will read 'Payment Plan Total To Collect'. If the customer is NOT on a payment plan, the label will read 'Total To Collect'.
Total Account Balance	This field contains the customer's total account balance.
Min Amt Required for Pay Plan	This field contains the minimum amount that must be collected to put the customer on a payment plan. If this field is blank, the customer is not eligible to be put on a payment plan.
Nbr NSF Checks	This field contains the number of insufficient fund checks written by the customer in the last 12 months.
Special Instructions	This field indicates there are forced instructions for this order. If this checkbox is checked, the user should navigate to the Meter Details screen to view meter access data and special instructions.
Payment History	
Previous Payment Date 1	This field contains the date of the first previous payment.
Previous Payment Amount 1	This field contains the amount of the first previous payment.
Previous Payment Date 2	This field contains the date of the second previous payment.
Previous Payment Amount 2	This field contains the amount of the second previous payment.
Previous Payment Date 3	This field contains the date of the third previous payment.
Previous Payment Amount 3	This field contains the amount of the third previous payment.
#Times Fielded	This field contains the number of times a 'CUT' order has been generated in the last 12 months for this customer.
#Months Delinquent	This field contains the number of consecutive months the customer is delinquent.
Collections Completion	
Action Taken	This field is used to indicate the action taken by the user to complete this order. The list is populated with the associated actions for the order type being worked using the action taken process table (DHTACTN) table.

<b>Field Name</b>	<b>Description</b>
Cash	This field is used to record the amount of cash collected from the customer. If the Payment Information Required flag associated with the selected Action Taken is 'Y', a value must be entered into this field or Check.
Check	This field is used to record the amount of a check collected from the customer. If the Payment Information Required flag associated with the selected Action Taken is 'Y', a value must be entered into this field or Cash.
Tot Collected	This field contains the total amount of money collected from the customer. This field is automatically updated with the total of Cash and Check.
Meter Reading	
Meter Number	This field contains the meter number for the customer on this order.
Register	This field is used to indicate the register read type associated with the entered reading. This list is populated with all the reading types from the DHTREAD table. The reading type code is decoded using the reading type validation table (DHTRTYPC) and the description is displayed in the list.
Read	This field contains the reading associated with the selected register. The readings will be read and entered right to left.
Completion Information:	
Complete/ Incomplete	An indicator to identify the status the field order was left in. If Complete, the status of the order will be Complete/Worked. If Incomplete, the status of the order is Incomplete/Worked.
Incompletion Reason	A set of reasons the order was incomplete. This field is required if Incomplete is selected. The list box is populated using the incompletion reasons process table (DHTINRSN) based on the order type.
Additional Work Performed	An indicator to the software that the service rep did more work than required by the order at the site. This checkbox is disabled when Incomplete is selected, the order being completed is a pickup order, the order type does not exist in the valid pickup order type validation table (DHTPCKUP), or the order type exists in the DHTPCKUP table, meter data is required and the order does not have meter data; otherwise the checkbox is enabled. The checkbox is also disabled if a pickup order is being completed.
Standard Remarks Text	A set of standard remarks the user can select. The list box is populated using the standard completion remarks validation table (DHTCREMK) based on the order type.
Remarks	Free-form remarks the user can use to document what occurred while completing/incompleting the order.
Review Required By	Indicates someone should review the order.

Field Name	Description
Review Required Text	A set of users who are available to review the order. The list is populated using the review required by validation table (DHTRVWRQ) table. The user can select only one entry from the list. This field is disabled until the Review Required By checkbox is checked. If the Review Required By checkbox is checked, this field is required.
Business Center Review	Indicates the user completing the order expects the Business Center to complete their activity; otherwise the Business Center Review activity, if one exists, will automatically be closed.
Billable	Indicates whether the order is billable.

## Buttons

Button Name	Description
Send	This button is used to validate and save data entered on the Collections screen. The completion data is sent to the Server for processing. The user is navigated back to the field order list. This button is only enabled in completion mode.
Common View	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the Collections screen is saved. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Since the user is already on the primary detail screen, this button is disabled.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. Before the Meter Information screen is displayed, any data entered on the Collections screen is saved. This button is enabled if there is meter data associated with the order.
Usage History	This button is used to navigate to the Usage History Information screen. Before the Usage History Information screen is displayed, any data entered on the Collections screen is saved. This button is enabled in all modes.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list.  In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user will be prompted to confirm the cancel status.

Button Name	Description
Equipment	This button is used to navigate to the Equipment screen. Before the Equipment screen is displayed, any data entered on the Collections screen is saved.
Dispatch	This button is always disabled. Orders cannot be dispatched from this screen.
Reassign	This button is always disabled. Orders cannot be reassigned from this screen.
Cancel Order	This button is always disabled. Orders cannot be cancelled from this screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the field order is updated with any data that has been entered on this screen.

When the Send button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, a message is displayed asking the user to confirm order completion. If the user selects Yes, the field order on the hard drive is updated; otherwise the screen is redisplayed. If the Additional Work Performed checkbox is checked, the Pickup Related Orders screen will be displayed. The completion data will not be sent until after the user indicates what type and how many orders are being picked up.

If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is 'Y', a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

If no additional work was performed, a completed order data transaction is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. If there is no entry in the transaction control table for a specific type, the application defaults to sending the transaction while 'Wireless'. If the order being completed is a pickup order, the transaction control record for the "original" order type will be checked. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router. The Router will convert the completed order data transaction into the proper transaction format and send the transaction to the appropriate external applications (e.g. Host System, etc.).

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When the Send button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

When the screen is first displayed in completion mode, the payment fields and the reading fields will be disabled. They will be enabled based on the selected Action Taken.

The Action Taken list will be populated using the action taken process table (DHTACTN). The entries in this table will contain the associated order type. Only the actions for the order type being worked will be loaded into the list. Each entry will have additional codes to drive much of the remaining validation. The additional codes will be Payment Information Required, Meter Reading Required, Standard Remarks Required, and Incompletion Required. The valid values for the additional code fields are 'Y' – required, 'O' – optional, and 'X' – disabled.

The Incompletion Reason list will be populated using the incompletion reason process table (DHTINRSN). The entries in this table will contain the associated order type. Only the reasons for the order type being worked will be loaded into the list. Each entry will have additional codes to drive much of the remaining validation. The additional codes will be Standard Remarks Required and Review By Required. The valid values for the additional code fields are 'Y' – required, 'O' – optional, and 'X' – disabled.

If the order being worked is a pickup order, the Incomplete button is disabled. Pickup orders cannot be incomplete; otherwise the initial selection of the Complete/Incomplete button will first depend on the value of the Spare 3 field (Can Order Be Incomplete?) of the Field Order Type table. If the field is 'N', the Complete button is selected automatically and the Incomplete button is disabled. If the Spare 3 field is 'Y', the Complete button will be initially selected on this screen; however the final selection of the Complete/Incomplete button will depend on the Incompletion Required field for the selected action taken. If No Action Taken was selected or the Incompletion Required field is 'O' (optional), both the Complete and Incomplete buttons will be enabled with the Complete button automatically selected. If the Incompletion Required field is 'Y', the Complete button will be disabled and the Incomplete button will be automatically selected. If the Incompletion Required field is 'X', the Incomplete button is disabled and the Complete button is automatically selected.

The number of decimals in the meter reading must be less than or equal to the number of decimals for the register. The number of decimals will be passed from the Host System with the order data.

A reading of zero is valid. The reading will be right justified and padded with zeroes on the left before the reading is sent to the Host System.

A high/low test will be performed against the entered reading, if the upper/lower limits are not zero. If the upper and lower limits are zero, no high/low test will be performed. If the reading fails the high/low test, the user can correct the reading or override the high/low test. The override flag is stored with the reading in the database. The following is the code snippet of the high/low test used in the Oracle Utilities Mobile Workforce Management product.

```

if ((upper > 0) || (lower > 0)) {
    if (upper < lower) {
        if ((reading >= lower) || (reading <= upper)) || OverrideFlag == 'Y'
            fFailTest = FALSE;
        else
            fFailTest = TRUE;
    } else {
        if ((reading >= lower) && (reading <= upper)) || OverrideFlag == 'Y'
            fFailTest = FALSE;
        else
            fFailTest = TRUE;
    }
}
if (fFailTest) {
    CString strErrorMWg = "The index reading entered:" + reading;
    strErrorMWg += " falls outside the range ";
    strErrorMWg += lower + "-" + upper;
}

```

```
        strErrorMWg += " Do you want to override this test?";
if (IDYES == AfxMessageBox(strErrorMWg, MB_YESNO))
{
    //set flag for override
    OverrideFlag = "Y";
} else {
    reading.SetFocus();
    return FALSE;
}
}
return TRUE;
```

---

### Validation checks in Completion mode -

- Action Taken is a required selection if complete selected. The selected Action Taken text will automatically be copied into the Remarks field prefixed with a label of 'AT=' when the completion data is saved.
- If the selected action taken has an associated Payment Information Required flag of 'Y', the cash and check fields will be enabled and the user must enter a value Cash and/or Check. If the Payment Information Required flag is 'O', the cash and check fields are enabled and the user may optionally enter information into the cash and/or check fields. If the Payment Information Required flag is 'X', the cash and check fields will be disabled.
- If the selected action taken has an associated Meter Reading Required flag of 'Y', the register and reading fields will be enabled and the user must enter a meter reading for each register on the meter. If the Meter Reading Required flag is 'O', the register and reading fields are enabled and the user may optionally enter readings. If the Meter Reading Required flag is 'X', the register and reading fields are disabled.
- Selection of Complete or Incomplete is required.
- If Incomplete is selected, the user must select an Incompletion Reason. The Incompletion Reason list will be populated with the reasons associated with an order of this type. The selected Incompletion Reason text will automatically be copied into the Remarks field prefixed with a label of 'IR=' when the completion data is saved.
- The Complete is selected AND the Spare 1 column in the Field Order Type table is 'Y', the Business Center Review checkbox will be enabled; otherwise the checkbox will be disabled.
- If Complete is selected, the Remarks Required flag for the order type will indicate if remarks are required. The Remarks Required flag values are 0: no remarks required, 1: standard and/or freeform required, or 2: standard remarks required. If the flag is 1, the user must enter standard or freeform remarks. If the flag is 2, the user must select a standard remark.
- If the selected action taken has an associated Standard Remarks Required field of 'Y', the user must select a standard remark from the list.
- If the selected incompletion reason has an associated Standard Remarks Required field of 'Y', the user must select a standard remark from the list.
- The Standard Remarks list box will be populated with remarks that correspond to the order type being worked. The selected Standard Remark will automatically be copied to the Remarks field prefixed with a label of 'SR=' when the completion data is saved.
- If the selected standard remark has a Freeform Remarks Required field of 'Y', the user must enter something in the Remarks field; otherwise freeform remarks are optional.
- If the selected incompletion reason has a Review By Required field of 'Y', the Review Required By checkbox is automatically selected and disabled. If the selected

incompletion reason has a Review By Required field of 'X', the Review Required By checkbox is disabled without being selected. Otherwise the Review Required By checkbox is enabled and can be checked if desired.

- If Review Required By is selected, the user must select an entry from the corresponding list of reviewers.

### **Data Updates**

The field order is updated when the user navigates to another screen. The database is not updated until the order is completed.

When the order is completed, the Server updates the field order database tables with the data from the completed order data transaction.

## Electric Trouble Primary Detail Screen

### Function/Process Description

The Electric Trouble Primary Detail screen is for displaying and completing the electric trouble field orders (T#####). This is a primary detail screen.

If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the completion fields are enabled for input.

### Data Fields

Field Name	Description
Order Information	
Construction Type	This field contains the construction type description. The field is populated using the construction type validation table (DHTCNSTR) based on the construction type code.
Outage Type	This field contains the outage type description. The field is populated using the outage type validation table (DHTOTYP) based on the outage type code.

Field Name	Description
Damage Assessment Report	Disable! <i>This field indicates there is damage assessment report for this order.</i>
Complaint Information	
Nature of Complaint	This field contains the order type description. The field is populated using the order type validation table (DHTFOTYP) based on the order type code.
Call Date/Time	This field contains the taken date time of the order.
Number of Calls	This field contains the number of calls received of the order.
Number of Customers Out	This field contains the number of customers out of the order.
Number of Key Custs	This field contains the number of key customers associated with the order.
Number of Emergency Customers	This field contains the number of emergency customers associated with the order.
Number of Medical Customers	This field contains the number of medical customers associated with the order.
Trouble Location	
Interrupting Device	This field contains the interrupting device number.
Phase of Device	This field contains the phase of the interrupting device.
Fuse Size	This field contains the fuse size of the interrupting device number.
Feeder	This field contains the feeder number.
Device Location	This field contains the location description of the interrupting device.
Default ERT	This field contains the original estimated restoration time.
Type of Meet	This field contains the type of meet. The valid values are: MC-Meet Customer, MF-Meet Fire, and MP-Meet Police. This screen will display the value sent from OMS. OMS will either send the code or the decoded description.
Case Notes	This field contains the case notes which were sent from the Host System with the order.
Clues	This field contains the clues which were sent from the Host System with the order.
Completion Information	
Completion Status	An indicator to identify the status the field order was left in. If Complete, the status of the order will be Complete/Worked. If Incomplete, the status of the order is Incomplete/Worked.
Restoration Status	An indicator to identify the status the field order was left in. If Restored, you must enter the restoration information for the order on the Restoration Data Screen/Dialog.

Field Name	Description
Standard Remarks	A set of standard remarks the user can select. The list box is populated using the standard completion remarks validation table (DHTCREMK) based on the order type.
Completion Remarks	Freeform remarks the user can use to document what occurred while completing/incompleting the order.
Billable	Indicates whether the order is billable.

## Buttons

Button Name	Description
Send	This button is used to validate and save data entered on the Collections screen. The completion data is sent to the Server for processing. The user is navigated back to the field order list. This button is only enabled in completion mode.
Common View	This button is used to navigate to the Common Information screen. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Since the user is already on the primary detail screen, this button is disabled.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Cancel Order	This button is always disabled. Orders cannot be canceled from this screen.
Damage Assessment	This button is used to navigate to the Damage Assessment screen. This button is enabled in all modes.
OMS Event Update	This button will navigate to the OMS Event Update secondary completion screen.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list. In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user will be prompted to confirm the cancel status.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the field order is updated with any data that has been entered on this screen.

When the Send button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, a message is displayed asking the user to confirm order completion. If the user selects Yes, the field order on the hard drive is updated; otherwise the screen is redisplayed.

If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is 'Y', a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

If no additional work was performed, a completed order data transaction is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. If the order being completed is a pickup order, the transaction control record for the "original" order type will be checked. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router. The Router will convert the completed order data transaction into the proper transaction format and send the transaction to the appropriate external applications (e.g. Host System, etc.).

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When the Ok button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

The Order Information fields are read-only and cannot be modified.

The Complaint Information fields are read-only and cannot be modified.

The Trouble Location fields are read-only and cannot be modified.

The Common Information fields are read-only and cannot be modified.

Validation checks in Completion mode:

- Selection of Complete or Incomplete is required.
- Selection of Restored or Not Restored is required.

If the Restored checkbox is checked, you must enter Restoration Information from the Restoration Data Screen/Dialog.

## Data Updates

The field order is updated when the user navigates to another screen. The database is not updated until the order is completed.

When the order is completed, the Server updates the field order database tables with the data from the completed order data transaction.

## Gas Emergency Primary Detail Screen

### Function/Process Description

The Gas Emergency Primary Detail screen is for displaying and completing the gas emergency field orders.

This is a primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the completion fields are enabled for input.

### Data Fields

Field Name	Description
Common Information	
Name	This field contains the customer name.
Order Type	This field contains the order type description. The field is populated using the order type validation table (DHTFOTYP) based on the order type code.
Service	This field contains the service phone number.
Addr	This field contains the customer address (street).
Contact	This field contains the contact phone number.
City	This field contains the city (city, zip).
Leak Log#	This field contains the leak log number of the order.
Life Support	This field contains the life support of the order.

<b>Field Name</b>	<b>Description</b>
Select Meter	
Meter numbers	This field contains the available meters of the order.
Status Found	This field contains the status found description of the selected meter. The field is populated using the meter status validation table (DHTMTRST w/ 'SELECTABLE'='Y') based on the meter status code.
Location	This field contains the meter location of the selected meter. The field is populated using the location validation table (DHTMTRLO) based on the location code.
Status Left	This field contains the status left of the selected meter. The field is populated using the meter status validation table (DHTMTRST w/ 'SELECTABLE'='Y') based on the meter status code. The field will be required to complete the order if the 'SPARE_1'='Y'.
AMR #	This field contains the AMR number of the selected meter.
Rem	This field contains the remote port of the selected meter. The field is populated using the remote port validation table (DHTMTRRP) based on the remote port code.
Reading	
Usage CD/Type	This field contains the available usage information of the selected meter. The field is populated using the read use validation table (DHTRDUCD) based on the read use code and the read type validation table (DHTRTYPC) based on the read type code.
Dials	This field contains the number of dials of the selected meter.
Read	This field contains the read of the selected meter. The field will be required to complete the order if the 'METER_READ_REQ' of the order type is '0' (current).
Reason	This field contains the read reason of the selected meter. The field will be required to complete the order if the read failed the HI/LO validation.
Order Information	
Estimated Read at Premise	This field indicates the estimated read at premise for this order.
Act Type	This field contains the account type of the order. The field is populated using the account type validation table (DHTACTTP) based on the account type code.
Premise Entrance	This field contains the premise entrance of the order. The field is populated using the premise entrance validation table (DHTPREMD) based on premise entrance code.
Order Remarks	This field contains the order remarks which were sent from the Host System with the order.

Field Name	Description
Completion Info	
Complete/ Incomplete	An indicator to identify the status the field order was left in. If Complete, the status of the order will be Complete/Worked. If Incomplete, the status of the order is Incomplete/Worked.
Reason	This field contains the reason of the order was incomplete. The field is required if Incomplete is selected. The list box is populated using the incompleteness reasons (Type 'I') process table (DHTREASN).
Standard Remarks	A set of standard remarks the user can select. The list box is populated using the standard completion remarks validation table (DHTCREMK) based on the order type.
Supervisor Review	Indicates someone should review the order.
Review Required Text	This field contains the remarks/comments of the review. The field is required if the Supervisor Review is selected.
Follow-up Required	Indicates someone should follow up the order.
Pick Up	Indicates that pick up order(s) will be needed to complete this order.
Billable	Indicates whether the order is billable.
Enroute Date	This field contains the enroute date of the order.
Enroute Time	This field contains the enroute time of the order.
Arrive Date	This field contains the onsite date of the order.
Arrive Time	This field contains the onsite time of the order.

For descriptions of the fields on page 2, see **Gas Emergency Secondary Completion Screen**.

## Buttons

Button Name	Description
Send	This button is used to validate and save data entered on the Gas Emergency screen. The completion data is sent to the Server for processing. The user is navigated back to the field order list. This button is only enabled in completion mode.
Page 2	This button is used to navigate to the GE Page 2 screen. This button is enabled in all modes.
Common View	This button is used to navigate to the Common Information screen. This button is enabled in all modes.
Meter Info	This button is used to navigate to the Meter Information screen. This button is enabled if there is meter data associated with the order.
AMR	This button is used to navigate to the AMR Information screen. This button is enabled in all modes.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.

Button Name	Description
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list. In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user will be prompted to confirm the cancel status.
Page 2	
Previous Page	This button is used to navigate to the GE Page 1 screen. This button is enabled in all modes.
Gas Warn Tag	This button is used to navigate to the Gas Warn Tag screen. This button is enabled in all modes.
Electric Warn Tag	This button is used to navigate to the Electric Warn Tag screen. This button is enabled in all modes.
Monitor	This button is used to navigate to the Monitor (Wall Check/Bar Hole) screen. This button is enabled if the Wall Check or Bar Hole information has been entered.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the field order is updated with any data that has been entered on this screen.

When the Send button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, a message is displayed asking the user to confirm order completion. If the user presses Yes, the field order on the hard drive is updated; otherwise the screen is redisplayed.

If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is 'Y', a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

If no additional work was performed, a completed order data transaction is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. If the order being completed is a pickup order, the transaction control record for the "original" order type will be checked. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router. The Router will convert the completed order data transaction

into the proper transaction format and send the transaction to the appropriate external applications (e.g. Host System, etc.).

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When the Ok button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

The Order Information fields are read-only and cannot be modified.

The Complaint Information fields are read-only and cannot be modified.

The Trouble Location fields are read-only and cannot be modified.

The Common Information fields are read-only and cannot be modified.

Validation checks in Completion mode:

- Selection of Complete or Incomplete is required.
- Selection of Restored or Not Restored is required.

If the Restored checkbox is checked, you must enter Restoration Information from the Restoration Data Screen/Dialog.

## Data Updates

The field order is updated when the user navigates to another screen. The database is not updated until the order is completed.

When the order is completed, the Server updates the field order database tables with the data from the completed order data transaction.

## Ground Level Inspection Primary Detail Screen

### Function/Process Description

The GLI Primary Detail screen is for displaying and completing the GLI field orders.

This is a primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the completion fields are enabled for input.

### Data Fields

Field Name	Description
Meter Condition	
Meter Number	The field contains the meter number(s) of the order.
Good Condition	Indicates the meter is in good condition when the order is complete.
Maintenance Requested	Indicates the meter is need maintenance request when the order is complete.
Number of PT Required	

Field Name	Description
Number of PT Lights On	
Equipment Condition	
Device Number & Category	The field contains the device number(s) and the category of the order.
Good Condition	Indicates the equipment is in good condition when the order is complete.
Maintenance Requested	Indicates the equipment is need maintenance request when the order is complete.
Pad Mount Condition	
Good Condition	Indicates the pad mount is in good condition when the order is complete.
Maintenance Requested	Indicates the pad mount is need maintenance request when the order is complete.
Over Head/Underground Issues	
Overhead/Underground	The field contains the issue either is overhead or underground is found when the order is complete.
Good Condition	Indicates the issue is in good condition when the order is complete.
Maintenance Requested	Indicates the issue is need maintenance request when the order is complete.
Completion Information:	
Complete/Incomplete	An indicator to identify the status the field order was left in. If Complete, the status of the order will be Complete/Worked. If Incomplete, the status of the order is Incomplete/Worked.
Incompletion Reason	A set of reasons the order was incomplete. This field is required if Incomplete is selected. The list box is populated using the incompletion reasons process table (DHTINRSN) based on the order type.
Additional Work Performed	An indicator to the software that the service rep did more work than required by the order at the site. This checkbox is disabled when Incomplete is selected, the order being completed is a pickup order, the order type does not exist in the valid pickup order type validation table (DHTPCKUP), or the order type exists in the DHTPCKUP table, meter data is required and the order does not have meter data; otherwise the checkbox is enabled. The checkbox is also disabled if a pickup order is being completed.
Standard Remarks	A set of standard remarks the user can select. The list box is populated using the standard completion remarks validation table (DHTCREMK) based on the order type.
Remarks	Freeform remarks the user can use to document what occurred while completing/incompleting the order.
Review Required By	Indicates someone should review the order.

Field Name	Description
<i>Review Required Text</i>	A set of users who are available to review the order. The list is populated using the review required by validation table (DHTRVWRQ) table. The user can select only one entry from the list. This field is disabled until the Review Required By checkbox is checked. If the Review Required By checkbox is checked, this field is required.
Business Center Review	Indicates the user completing the order expects the Business Center to complete their activity; otherwise the Business Center Review activity, if one exists, will automatically be closed.
Transformer Facility Point	If the completion status for the order is Complete, this field will be enabled. This field will be populated with the current facility point for the site on this order. The user can modify this field.
Return Date	If the completion status for the order is Incomplete, the field will be enabled. The user can specify the new date for which the order is to be scheduled.
Assign Order to Same Tech	If the completion status for the order is Incomplete, the checkbox will be enabled. Indicates if the order should be assigned back to the same technician.
Billable	Indicates whether the order is billable.

## Buttons

Button Name	Description
OK	This button is used to validate and save data entered on the GLI screen. The completion data is sent to the Server for processing. The user is navigated back to the field order list. This button is only enabled in completion mode.
Common View	This button is used to navigate to the Common Information screen. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Since the user is already on the primary detail screen, this button is disabled.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. This button is enabled if there is meter data associated with the order.
Usage History	This button is used to navigate to the Usage History Information screen. This button is enabled in all modes.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
Parts	This button is used to navigate to the Parts Information screen. This button is enabled if parts data are associated with the order.

Button Name	Description
Customer Change	This button will display the Customer Change information screen. This button is always disabled.
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list. In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user will be prompted to confirm the cancel status.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the field order is updated with any data that has been entered on this screen.

When the Send button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, a message is displayed asking the user to confirm order completion. If the user selects Yes, the field order on the hard drive is updated; otherwise the screen is redisplayed.

If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is 'Y', a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

If no additional work was performed, a completed order data transaction is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. If the order being completed is a pickup order, the transaction control record for the "original" order type will be checked. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router. The Router will convert the completed order data transaction into the proper transaction format and send the transaction to the appropriate external applications (e.g. Host System, etc.).

## Validation

None

## Data Updates

The field order is updated when the user navigates to another screen. The database is not updated until the order is completed.

When the order is completed, the Server updates the field order database tables with the data from the completed order data transaction.

## Meter Miscellaneous Primary Detail Screen

### Function/Process Description

The Meter Miscellaneous Primary Detail screen is for displaying and completing the CON, CRO, DIS, DRO, DSU, FLD, GPQ, GSC, GSR, LRS, MAF, MWR, REC, TBL, TRE, and USG field orders.

The order type will appear in the screen header. This is a primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the completion fields are enabled for input.

### Data Fields

Field Name	Description
Meter Information	
Meter Number	This field contains the meter number of the order.
Cut At	This field contains the location where the service was cut (e.g. Cut At Pole, Cut At Meter, etc.) if the service is currently disconnected. The cut at code will be decoded using the action taken table (DHTACTN) using the order type of 'DIS'.
Last Reading List	This list contains the last reading for each register type.
Meter Reading	

Field Name	Description
Action Taken	This field is used to indicate the action taken by the user to complete this order. The list is populated with the associated actions for the order type being worked using the action taken process table (DHTACTN).
Register	This field is used to indicate the register read type associated with the entered reading. This list is populated with all the reading types from the DHTREAD table. The reading type code is decoded using the reading type validation table (DHTRTYPC) and the description is displayed in the list.
Read	This field contains the reading associated with the selected register. The readings will be read and entered right to left.
Completion Information:	
Complete/ Incomplete	An indicator to identify the status the field order was left in. If Complete, the status of the order will be Complete/Worked. If Incomplete, the status of the order is Incomplete/Worked.
Incompletion Reason	A set of reasons the order was incomplete. This field is required if Incomplete is selected. The list box is populated using the incompletion reasons process table (DHTINRSN) based on the order type.
Additional Work Performed	An indicator to the software that the service rep did more work than required by the order at the site. This checkbox is disabled when Incomplete is selected, the order being completed is a pickup order, the order type does not exist in the valid pickup order type validation table (DHTPCKUP), or the order type exists in the DHTPCKUP table, meter data is required and the order does not have meter data; otherwise the checkbox is enabled. The checkbox is also disabled if a pickup order is being completed.
Standard Remarks	A set of standard remarks the user can select. The list box is populated using the standard completion remarks validation table (DHTCREMK) based on the order type.
Remarks	Freeform remarks the user can use to document what occurred while completing/incompleting the order.
Review Required By	Indicates someone should review the order.
Review Required Text	A set of users who are available to review the order. The list is populated using the review required by validation table (DHTRVWRQ) table. The user can select only one entry from the list. This field is disabled until the Review Required By checkbox is checked. If the Review Required By checkbox is checked, this field is required.
Business Center Review	Indicates the user completing the order expects the Business Center to complete their activity; otherwise the Business Center Review activity, if one exists, will automatically be closed.
Billable	Indicates whether the order is billable.
Transformer Facility Point	If the completion status for the order is Complete, this field will be enabled. This field will be populated with the current facility point for the site on this order. The user can modify this field.

Field Name	Description
Return Date	If the completion status for the order is Incomplete, the field will be enabled. The user can specify the new date for which the order is to be scheduled.
Assign Order to Same Tech	If the completion status for the order is Incomplete, the checkbox will be enabled. Indicates if the order should be assigned back to the same technician.

## Buttons

Button Name	Description
Send	This button is used to validate and save data entered on the Meter Miscellaneous screen. The completion data is sent to the Server for processing. The user is navigated back to the field order list. This button is only enabled in completion mode.
Common View	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the Meter Miscellaneous screen is saved. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Since the user is already on the primary detail screen, this button is disabled.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. Before the Meter Information screen is displayed, any data entered on the Meter Miscellaneous screen is saved. This button is enabled if there is meter data associated with the order.
Usage History	This button is used to navigate to the Usage History Information screen. Before the Usage History Information screen is displayed, any data entered on the Meter Miscellaneous screen is saved. This button is enabled in all modes if the order has usage history.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
Equipment	This button is used to navigate to the Equipment screen. Before the Equipment screen is displayed, any data entered on the Meter Miscellaneous screen is saved. This button is enabled if there is equipment data associated with the order.
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list. In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user will be prompted to confirm the cancel status.

Button Name	Description
Dispatch	This button is always disabled. Orders cannot be dispatched from this screen.
Reassign	This button is always disabled. Orders cannot be reassigned from this screen.
Reschedule	This button is always disabled. Orders cannot be rescheduled from this screen.
Cancel Order	This button is always disabled. Orders cannot be cancelled from this screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the field order is updated with any data that has been entered on this screen.

When the Send button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, a message is displayed asking the user to confirm order completion. If the user selects Yes, the field order on the hard drive is updated; otherwise the screen is redisplayed. If the Additional Work Performed checkbox is checked, the Pickup Related Orders screen will be displayed. The completion data will not be sent until after the user indicates what type and how many orders are being picked up.

If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is 'Y', a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

If no additional work was performed, a completed order data transaction is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. If the order being completed is a pickup order, the transaction control record for the "original" order type will be checked. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router. The Router will convert the completed order data transaction into the proper transaction format and send the transaction to the appropriate external applications (e.g. Host System, etc.).

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When the Send button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

The Action Taken list will be populated using the process taken process table (DHTACTN). The entries in this table will contain the associated order type. Only the actions for the order type being worked will be loaded into the list. Each entry will have additional codes to drive much of the remaining validation. The additional codes will be Payment Information Required, Meter Reading Required, Standard Remarks Required, and Incompletion Required. The valid values for the additional code fields are 'Y' – required, 'O' – optional, and 'X' – disabled.

The DHTACTN table will be used to decode the Cut At code using the order type of 'DIS'. The description will be displayed in the Cut At field.

The Action Taken field will be disabled if the order type is CON, REC, FLD, GPQ, GSC, GSR, LRS, MAF, TBL, and TRE. The field will only be enabled if the order type is CRO, DIS, DRO, DSU, MWR, and USG.

The Reading fields will be disabled if the order type is FLD, GPQ, LRS, MAF, TBL, and TRE. The fields will only be enabled for all other order types.

The Incompletion Reason list will be populated using the incompletion reason process table (DHTINRSN). The entries in this table will contain the associated order type. Only the reasons for the order type being worked will be loaded into the list. Each entry will have additional codes to drive much of the remaining validation. The additional codes will be Standard Remarks Required and Review By Required. The valid values for the additional code fields are 'Y' – required, 'O' – optional, and 'X' – disabled.

If the order being worked is a pickup order, the Incomplete button is disabled. Pickup orders cannot be incomplete; otherwise the initial selection of the Complete/Incomplete button will first depend on the value of the Spare 3 field (Can Order Be Incomplete?) of the Field Order Type table. If the field is 'N', the Complete button is selected automatically and the Incomplete button is disabled. If the Spare 3 field is 'Y', the Complete button will be initially selected on this screen; however the final selection of the Complete/Incomplete button will depend on the Incompletion Required field for the selected action taken. If No Action Taken was selected or the Incompletion Required field is 'O' (optional), both the Complete and Incomplete buttons will be enabled with the Complete button automatically selected. If the Incompletion Required field is 'Y', the Complete button will be disabled and the Incomplete button will be automatically selected. If the Incompletion Required field is 'X', the Incomplete button is disabled and the Complete button is automatically selected.

The Return Date and Assign Order To Same Tech fields will always be disabled on this screen, except for order types FLD/GPQ/LRS/MAF/TBL/TRE. If the completion status for one of these order types is Incomplete, the user can enter a return date greater than the current date. Optionally, the user can check the Assign Order to Same Crew checkbox to have the order automatically assigned back to them when the order is scheduled/routed on the return date. If the Assign Order To Same Tech checkbox is checked, the user must enter a return date. The scheduling module will be responsible for rescheduling/reassigning all other incomplete orders.

The number of digits in the meter reading must be less than or equal to the number of dials for the register. The number of dials will be passed from the Host System with the order data.

A reading of zero is valid. The reading will be right justified and padded with zeroes on the left before the reading is sent to the Host System.

A high/low test will be performed against the entered reading, if the upper/lower limits are not zero. If the upper and lower limits are zero, no high/low test will be performed. If the reading fails the high/low test, the user can correct the reading or override the high/low test. The override flag is stored with the reading in the database.

The following is the code snippet of the high/low test used in the Oracle Utilities Mobile Workforce Management product.

---

```
if ((upper > 0) || (lower > 0)) {
    if (upper < lower) {
```

```

        if (((reading>=lower) || (reading<=upper)) || OverrideFlag=='Y')
            fFailTest = FALSE;
        else
            fFailTest = TRUE;
    } else {
        if(((reading>=lower) && (reading<=upper)) || OverrideFlag=='Y')
            fFailTest = FALSE;
        else
            fFailTest = TRUE;
    }
}
if (fFailTest) {
CString strErrorMWg = "The index reading entered:" + reading;
    strErrorMWg += " falls outside the range ";
    strErrorMWg += lower + "-" + upper;
    strErrorMWg += " Do you want to override this test?";
if (IDYES == AfxMessageBox(strErrorMWg, MB_YESNO))
    {
        //set flag for override
        OverrideFlag = "Y";
    } else {
        reading.SetFocus();
        return FALSE;
    }
}
return TRUE;

```

---

### Validation checks in Completion mode -

Validation for CON/GSC/REC order types:

- If the Cut At has an associated Meter Reading Required flag of 'Y', the user must enter a meter reading for each register on the meter. If the Meter Reading Required flag is 'O', the user may optionally enter readings. If the Meter Reading Required flag is 'X', the register and reading fields are disabled. If reading is required and the meter cannot be read, the user must select the Incomplete button.

Validation for CRO/DRO/MWR order types:

- The user must enter a meter reading for each register on the meter OR select an Action Taken to indicate why the meter could not be read. If an Action Taken is selected, the text will automatically be copied into the Remarks field prefixed with a label of 'AT=' when the completion data is saved.

Validation for GSR order type:

- The user must enter a meter reading for each register on the meter. If the meter cannot be read, the user must select the Incomplete button.

Validation for DIS/DSU/USG order types:

- The Action Taken is a required selection if the Complete button is selected. The selected Action Taken text will automatically be copied into the Remarks field prefixed with a label of 'AT=' when the completion data is saved. The Action Taken field will be disabled if the Incomplete button is selected.
- If the selected action taken has an associated Meter Reading Required flag of 'Y', the user must enter a meter reading for each register on the meter. If the Meter Reading Required flag is 'O', the user may optionally enter readings. If the Meter Reading Required flag is 'X', the register and reading fields are disabled. If reading is required and the meter cannot be read, the user must select the Incomplete button.

Validation for ALL order types:

- Selection of Complete or Incomplete is required.
- If Incomplete is selected, the user must select an Incompletion Reason. The Incompletion Reason list will be populated with the reasons associated with an order of this type. The selected Incompletion Reason text will automatically be copied into the Remarks field prefixed with a label of 'IR=' when the completion data is saved.
- If Complete is selected AND the Spare 1 column in the Field Order Type table is 'Y', the Business Center Review checkbox will be enabled; otherwise the checkbox will be disabled.
- If Complete is selected, the Remarks Required flag for the order type will indicate if remarks are required. The Remarks Required flag values are 0: no remarks required, 1: standard and/or freeform required, or 2: standard remarks required. If the flag is 1, the user must enter standard or freeform remarks. If the flag is 2, the user must select a standard remark.
- If the selected action taken has an associated Standard Remarks Required field of 'Y', the user must select a standard remark from the list.
- If the selected incompletion reason has an associated Standard Remarks Required field of 'Y', the user must select a standard remark from the list.
- The Standard Remarks list box will be populated with remarks that correspond to the order type being worked. The selected Standard Remark will automatically be copied to the Remarks field prefixed with a label of 'SR=' when the completion data is saved.
- If the selected standard remark has a Freeform Remarks Required field of 'Y', the user must enter something in the Remarks field; otherwise freeform remarks are optional.
- If the selected incompletion reason has a Review By Required field of 'Y', the Review Required By checkbox is automatically selected and disabled. If the selected incompletion reason has a Review By Required field of 'X', the Review Required By checkbox is disabled without being selected. Otherwise the Review Required By checkbox is enabled and can be checked if desired.
- If Review Required By is selected, the user must select an entry from the corresponding list of reviewers.
- If the order is Complete, the user may update the Transformer Facility Point. The format of the field is 99999999.9999999. If the order is Incomplete, the Transformer Facility Point field is disabled. If the Transformer Facility Point is entered, the entire field length is required (e.g. 8 digits to the left of the decimal and 7 digits to the right of the decimal).

## Data Updates

The field order is updated when the user navigates to another screen. The database is not updated until the order is completed.

When the order is completed, the Server updates the field order database tables with the data from the completed order data transaction.

## Meter Read Primary Detail Screen

### Function/Process Description

The Meter Read Primary Detail screen is for displaying and completing the meter read field orders.

This is a primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the completion fields are enabled for input.

### Data Fields

Field Name	Description
Name	Customer's name
Order Type	The order type from DHTFOTYP table
Service	service phone number
Contact	Contact phone number
Addr	The address of the customer
City	The city of customer
Appt	Appointment Start Time
Select Meter	The user can choose one of the list of meter numbers
Status Found	The current meter status found like "Active" or "Turned Off"
Status Left	The original meter status before the crew checks it
Location	Location of the meter

Field Name	Description
AMR	Automatic Meter Reader
Rem Port	The remote port of the selected meter. The field is populated using the remote port validation table (DHTMTRRP) based on the remote port code.
Usage CD/Type	The available usage information of the selected meter. The field is populated using the read use validation table (DHTRDUCD) based on the read use code and the read type validation table (DHTRTYPC) based on the read type code.
Dials	The number dials of the reading.
Read	The meter number read from dial
Reason	The reason the existing meter was selected.
Estimated Read at premise	Indicates if there was an Estimated Meter at premise.
Act Type	The account type of the order. The field is populated using the account type validation table (DHTACTTP) based on the account type code.
Premise entrance	The premise entrance of the order. The field is populated using the premise entrance validation table (DHTPREMD) based on premise entrance code.
Order Remarks	The remarks of the order that was sent down from the Host System. (Read-Only)
Complete	If Complete, the status of the order will be Complete/Worked.
Suspend	If suspend, the status of the order is Incomplete/Worked.
Reason	The reason the order was incomplete. The field is required if Incomplete is selected.
Completion Remarks	This is populated using the standard completion remarks validation table (DHTCREMK) based on the order type.
Test Reason	Meter Test Reason (DHTMTRTR)
Irreg Test Cond	The irregular test condition. (DHTFOMTR)
Inner	Meter seal code inner description (DHTFOMTR) SEAL_CD_INNER
Socket	Meter seal code socket description (DHTFOMTR) SEAL_CD_SOCKET
Demand	A Demand Seal Code (DHTFOMTR) SEAL_CD_DEMAND
Supervisor Review	Indicates whether someone should review the order.
Follow-up Required	Indicates whether the user completing the order expects that more work will need to be done.
Pick up	Indicates to the software that the service rep did more work than required by the order at the site. This checkbox is disabled when Incomplete is selected, the order being completed is a pickup order, the order type does not exist in the valid pickup order type validation table (DHTPCKUP), or the order type exists in the DHTPCKUP table, meter data is required and the order does not have meter data; otherwise the checkbox is enabled. The checkbox is also disabled if a pickup order is being completed.

Field Name	Description
Billable	Indicates whether the order is billable.

## Buttons

Button Name	Description
Send	This button is used to validate and save data entered on the Meter Set/Change/Remove screen. The completion data is sent to the Server for processing. The user is navigated back to the field order list. This button is only enabled in completion mode.
Common Info	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the Meter Set/Change/Remove screen is saved. This button is enabled in all modes.
Meter Info	This button is used to navigate to the Meter Information screen. Before the Meter Information screen is displayed, any data entered on the Meter Set/Change/Remove screen is saved. This button is enabled if there is meter data associated with the order.
Gas Check	This button is used to navigate to the Gas Check screen. Before Gas Check screen is displayed, any data entered on the “Meter Read Information” screen is saved.
Gas Warn Tag	This button is used to navigate to the Gas Warn Tag Information screen. Before Gas Warn Tag Information screen is displayed, any data entered on the “Meter Read Information” screen is saved.
Electric Warn Tag	This button is used to navigate to the Electric Warn Tag Information screen. Before Electric Warn Tag Information screen is displayed, any data entered on the “Meter Read Information” screen is saved.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
AMR	This button is used to navigate to the AMR Information screen. Before AMR Information screen is displayed, any data entered on the “Meter Read Information” screen is saved.
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list. In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user will be prompted to confirm the cancel status.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the field order is updated with any data that has been entered on this screen.

When the Send button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, a message is displayed asking the user to confirm order completion. If the user presses Yes, the field order on the hard drive is updated; otherwise the screen is redisplayed. If the Additional Work Performed checkbox is checked, the Pickup Related Orders screen will be displayed. The completion data will not be sent until after the user indicates what type and how many orders are being picked up.

If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is 'Y', a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

If no additional work was performed, a completed order data transaction is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. If the order being completed is a pickup order, the transaction control record for the "original" order type will be checked. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router. The Router will convert the completed order data transaction into the proper transaction format and send the transaction to the appropriate external applications (e.g. Host System, etc.).

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

If this screen is being displayed in edit mode like onsite in mobile, complete in dispatcher, some of fields are enabled. The top are the customer's information, it doesn't change, so it's read-only. That information includes name, address, city, order type, appointment time, service and contact phone numbers. The "Other Information" part to the right of the screen is also read-only. That includes the check box for "Estimated Read at Premise", "Act Type", "Premise Entrance" and "Order Remarks". They are populated from database directly. The "Meter Test" information is read-only here. It should be populated from the database. So does the "Seal Codes" information.

The "Select Meter" information is editable under completion mode. The selection of meter number and "Status Left" are pre-populated. "Status Found", "Location", "AMR" and "Rem Port" are read-only.

The "Reading" information: the Usage/CD and reason are populated from database.

The number of digits in the meter reading must be less than or equal to the number of dials for the register. The number of dials will be passed from the Host System with the order data.

A reading of zero is valid. The reading will be right justified and padded with zeroes on the left before the reading is sent to the Host System.

A high/low test will be performed against the entered reading, if the upper/lower limits are not zero. If the upper and lower limits are zero, no high/low test will be performed. If the reading fails the high/low test, the user can correct the reading or override the high/low test. The override flag is stored with the reading in the database. The following is the code snippet of the high/low test used in the Oracle Utilities Mobile Workforce Management product.

---

```

if ((upper > 0) || (lower > 0)) {
    if (upper < lower) {
        if ((reading >= lower) || (reading <= upper)) ||
OverrideFlag == 'Y')
            fFailTest = FALSE;
        else
            fFailTest = TRUE;
    } else {
        if ((reading >= lower) && (reading <= upper)) || OverrideFlag == 'Y')
            fFailTest = FALSE;
        else
            fFailTest = TRUE;
    }
}
if (fFailTest) {
CString strErrorMWg = "The index reading entered:" + reading;
strErrorMWg += " falls outside the range ";
strErrorMWg += lower + "-" + upper;
strErrorMWg += " Do you want to override this test?";
if (IDYES == AfxMessageBox(strErrorMWg, MB_YESNO))
{
//set flag for override
OverrideFlag = "Y";
} else {
reading.SetFocus();
return FALSE;
}
}
return TRUE;

```

---

**Completion Information:** The reason combo box will populate the suspend reasons. When the Complete check button is selected, the field is disabled. When the suspend button is checked, Suspend Reason list will be populated using the incompleteness reason process table (DHTINRSN). The entries in this table will contain the associated order type. Only the reasons for the order type being worked will be loaded into the list. Each entry will have additional codes to drive much of the remaining validation. The additional codes will be Standard Remarks Required and Review By Required. The valid values for the additional code fields are 'Y' – required, 'O' – optional, and 'X' – disabled.

Completion remarks field is always enabled. The user can click the “Click to Choose Completion Information” button to input it or add it manually. The maximum the user can add is consistent with the column length of the database.

**Supervisor Review:** The field to the right of the “Supervisor Review” is read-only. If the button is checked, then the field is enabled. The user can input as many characters as the database field allowed based on the limitation of the size consistent with database field length.

## Data Updates

The field order is updated when the user navigates to another screen. The database is not updated until the order is completed.

When the order is completed, the Server updates the field order database tables with the data from the completed order data transaction.

## Meter Set/Change/Remove Primary Detail Screen (option 1)

### Function/Process Description

The Meter Set/Change/Remove primary detail screen is for displaying and completing the MRP, MSW, MTX, RMW, and TMP field orders.

This is a primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the completion fields are enabled for input.

### Data Fields

Field Name	Description
Action Taken	This is used to indicate the action taken to complete the order (e.g. meter set, etc.). Only one radio button can be selected.
Set	Indicates a meter was set during completion of the order.
Change	Indicates a meter was changed during the completion of the order.
Remove	Indicates a meter was removed during the completion of the order.
Other	Indicates a meter was not set, changed, or removed during the completion of the order; some other action was performed.
Other Text	This field is used to indicate the action taken to complete the order when the meter was not set, changed, or removed. This list is populated using the action taken process table (DHTACTN). Only those entries associated with the order type being worked will be listed.

<b>Field Name</b>	<b>Description</b>
Remove Meter	Information associated with the removed meter/service
Meter Number	This is the number of the existing meter. This field is read-only and cannot be modified.
LRS#	This is the load research number associated with the existing meter. This field is read-only and cannot be modified.
Register	This field is used to indicate the register read type associated with the entered reading. This list is populated with all the reading types from the DHTREAD table. The reading type code is decoded using the reading type validation table (DHTRTYPC) and the description is displayed in the list.
Removal Reason	This field is used to indicate the reason the existing meter was removed. This list is populated using the removal reason validation table (DHTRMRSN).
Form	This field contains the meter form code associated with the existing meter. This field is read-only and cannot be modified.
Reading	This field contains the reading associated with the selected register. The readings will be read and entered right to left.
Service Removed	This checkbox indicates that in addition to the meter being removed, the service was also removed.
MERC	This is the MERC associated with the existing meter. This field is read-only and cannot be modified.
Set Meter	Information associated with the new meter/service.
Meter Number	The number of the new meter being set.
Register Group	The register group associated with the new meter being set. This list is populated using the register group validation table (DHTPIDDS).
Service Profile	The profile of the new service being set. This list is populated using the service profile validation table (DHTSVPRF).
Set Voltage	The voltage setting on the new meter being set. This list is populated using the miscellaneous validation table (DHTMISC) where the code is 'VOLTAGE##'.
Location	The location of the new meter being set. This list is populated using the meter location validation table (DHTMTRLO).
Bill Multiplier	The bill multiplier associated with the new meter being set.
Meter Form	The meter form code associated with the new meter being set. This list is populated using the meter form validation table (DHTMTRFM).
Meter Access 1	The first access related code associated with the new meter being set. This list is populated using the meter access validation table (DHTMTRRI).
Rate Schedule	The rate schedule associated with the new meter being set.
Program Id	The program id associated with the new meter being set.

Field Name	Description
Meter Access 2	The second access related code associated with the new meter being set. This list is populated using the meter access validation table (DHTMTRRI).
Demand Threshold	The demand threshold associated with the new meter being set.
EMR Read Method	The EMR read method associated with the new meter being set. This list is populated using the miscellaneous validation table (DHTMISC) where the code is 'EMR_READ_METH###'.
Svc Facility Pt	The nearest pole number to the meter being set.
Seal Number	The number of the seal associated with the new meter being set.
Drop Type	The drop type associated with the new service being set. This list is populated using the miscellaneous validation table (DHTMISC) where the code is 'DROP_TYPE##'.
LRS#	The load research number associated with the new meter being set.
Next to Meter Nbr	The number of the meter that would follow the new meter being set in a meter reader's route.
#Svc Wires	The number of wires associated with the new service being set. This list is populated using the miscellaneous validation table (DHTMISC) where the code is 'NBR_SERV_WIRES##'.
Completion Information:	
Complete/ Incomplete	An indicator to identify the status the field order was left in. If Complete, the status of the order will be Complete/Worked. If Incomplete, the status of the order is Incomplete/Worked.
Incompletion Reason	A set of reasons the order was incomplete. This field is required if Incomplete is selected. The list box is populated using the incompletion reasons process table (DHTINRSN) based on the order type.
Additional Work Performed	An indicator to the software that the service rep did more work than required by the order at the site. This checkbox is disabled when Incomplete is selected, the order being completed is a pickup order, the order type does not exist in the valid pickup order type validation table (DHTPCKUP), or the order type exists in the DHTPCKUP table, meter data is required and the order does not have meter data; otherwise the checkbox is enabled. The checkbox is also disabled if a pickup order is being completed.
Standard Remarks	A set of standard remarks the user can select. The list box is populated using the standard completion remarks validation table (DHTCREMK) based on the order type.
Remarks	Freeform remarks the user can use to document what occurred while completing/incompleting the order.
Review Required By	Indicates someone should review the order.

Field Name	Description
Review Required Text	A set of users who are available to review the order. The list is populated using the review required by validation table (DHTRVWRQ) table. The user can select only one entry from the list. This field is disabled until the Review Required By checkbox is checked. If the Review Required By checkbox is checked, this field is required.
Business Center Review	Indicates the user completing the order expects the Business Center to complete their activity; otherwise the Business Center Review activity, if one exists, will automatically be closed. This checkbox will be enabled if Complete is selected AND the Spare 1 column in the Field Order Type table is 'Y'.
Transformer Facility Point	If the completion status for the order is Complete, this field will be enabled. This field will be populated with the current facility point for the site on this order. The user can modify this field.
Return Date	If the completion status for the order is Incomplete, the field will be enabled. The user can specify the new date for which the order is to be scheduled.
Assign Order to Same Tech	If the completion status for the order is Incomplete, the checkbox will be enabled. Indicates if the order should be assigned back to the same technician.
Billable	Indicates whether the order is billable.

## Buttons

Button Name	Description
Send	This button is used to validate and save data entered on the Meter Set/Change/Remove screen. The completion data is sent to the Server for processing. The user is navigated back to the field order list. This button is only enabled in completion mode.
Common View	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the Meter Set/Change/Remove screen is saved. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Since the user is already on the primary detail screen, this button is disabled.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. Before the Meter Information screen is displayed, any data entered on the Meter Set/Change/Remove screen is saved. This button is enabled if there is meter data associated with the order.
Usage History	This button is used to navigate to the Usage History Information screen. Before the Usage History Information screen is displayed, any data entered on the Meter Set/Change/Remove screen is saved. This button is enabled in all modes if the order has usage history.

Button Name	Description
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list. In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user will be prompted to confirm the cancel status.
Equipment	This button is used to navigate to the Equipment screen. Before the Equipment screen is displayed, any data entered on the Meter Set/Change/Remove screen is saved. This button is always enabled.
Dispatch	This button is always disabled. Orders cannot be dispatched from this screen.
Reassign	This button is always disabled. Orders cannot be reassigned from this screen.
Cancel Order	This button is always disabled. Orders cannot be cancelled from this screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the field order is updated with any data that has been entered on this screen.

When the Send button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, a message is displayed asking the user to confirm order completion. If the user presses Yes, the field order on the hard drive is updated; otherwise the screen is redisplayed. If the Additional Work Performed checkbox is checked, the Pickup Related Orders screen will be displayed. The completion data will not be sent until after the user indicates what type and how many orders are being picked up.

If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is 'Y', a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

If no additional work was performed, a completed order data transaction is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the

transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. If the order being completed is a pickup order, the transaction control record for the "original" order type will be checked. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router. The Router will convert the completed order data transaction into the proper transaction format and send the transaction to the appropriate external applications (e.g. Host System, etc.).

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When the Send button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

The Other Action Taken list will be populated using the action taken process table (DHTACTN). The entries in this table will contain the associated order type. Only the actions for the order type being worked will be loaded into the list. Each entry will have additional codes to drive much of the remaining validation. The additional codes will be Payment Information Required, Meter Reading Required, Standard Remarks Required, and Incompletion Required. The valid values for the additional code fields are 'Y' – required, 'O' – optional, and 'X' – disabled.

The Incompletion Reason list will be populated using the incompletion reason process table (DHTINRSN). The entries in this table will contain the associated order type. Only the reasons for the order type being worked will be loaded into the list. Each entry will have additional codes to drive much of the remaining validation. The additional codes will be Standard Remarks Required and Review By Required. The valid values for the additional code fields are 'Y' – required, 'O' – optional, and 'X' – disabled.

When the screen is first displayed in completion mode, the remove meter fields and the set meter fields will be disabled. They will be enabled based on the selected Action Taken. If the order does not have existing meter data, the Change and Remove action taken buttons are disabled; otherwise the Set action taken button is disabled. If the order type is 'RMW', disable the Set and Change action taken buttons.

If the 'Set' action taken is selected, the remove meter fields are disabled and the set meter fields are enabled for input. Any data entered in the remove meter fields will be cleared. The character 'S' will be stored in the Action Taken field (DHTFOEXT.REASON\_CD\_1).

If the 'Change' action taken is selected, the remove meter fields and the set meter fields are enabled for input. The Service Removed check box will be disabled, since the service cannot be removed on a change. Several of the set meter fields will be populated with the data from the existing meter. The fields are: service profile, location, rate schedule, meter access 1, meter access 2, drop type, and #svc wires. The remaining set meter fields will be empty. The character 'C' will be stored in the Action Taken field (DHTFOEXT.REASON\_CD\_1).

If the 'Remove' action taken is selected, the remove meter fields are enabled for input and the set meter fields are disabled. Any data entered in the set meter fields will be cleared. The character 'R' will be stored in the Action Taken field (DHTFOEXT.REASON\_CD\_1).

If the 'Other' action taken is selected, the remove meter fields and the set meter fields are disabled. Any data entered in the remove meter fields and set meter fields will be cleared. The Other text list box will be enabled when the 'Other' action taken is selected; otherwise the list box will be disabled. The action taken code associated with the selected other action taken will be stored in the Action Taken field (DHTFOEXT.REASON\_CD\_1).

If the order being worked is a pickup order, the Incomplete button is disabled. Pickup orders cannot be incomplete; otherwise the initial selection of the Complete/Incomplete button will first depend on the value of the Spare 3 field (Can Order Be Incomplete?) of the Field Order Type table. If the field is 'N', the Complete button is selected automatically and the Incomplete button is disabled. If the Spare 3 field is 'Y', the Complete button will be initially selected on this screen; however the final selection of the Complete/Incomplete button will depend on the Incompletion

Required field for the selected action taken. If No Action Taken was selected or the Incompletion Required field is 'O' (optional), both the Complete and Incomplete buttons will be enabled with the Complete button automatically selected. If the Incompletion Required field is 'Y', the Complete button will be disabled and the Incomplete button will be automatically selected. If the Incompletion Required field is 'X', the Incomplete button is disabled and the Complete button is automatically selected.

If the completion status is Incomplete, the Return Date and Assign Order To Same Tech fields will be enabled on this screen. The user can enter a return date greater than the current date. Optionally, the user can check the Assign Order to Same Crew checkbox to have the order automatically assigned back to them when the order is scheduled/routed on the return date. If the Assign Order To Same Tech checkbox is checked, the user must enter a return date. The scheduling module will be responsible for rescheduling/reassigning all other incomplete orders.

The number of digits in the meter reading must be less than or equal to the number of dials for the register. The number of dials will be passed from the Host System with the order data.

A reading of zero is valid. The reading will be right justified and padded with zeroes on the left before the reading is sent to the Host System.

A high/low test will be performed against the entered reading, if the upper/lower limits are not zero. If the upper and lower limits are zero, no high/low test will be performed. If the reading fails the high/low test, the user can correct the reading or override the high/low test. The override flag is stored with the reading in the database.

The following is the code snippet of the high/low test used in the Oracle Utilities Mobile Workforce Management product.

---

```

if ((upper > 0) || (lower > 0)) {
if (upper < lower) {
    if (((reading>=lower) || (reading<=upper)) ||
OverrideFlag=='Y')
        fFailTest = FALSE;
    else
        fFailTest = TRUE;
} else {
    if(((reading>=lower) && (reading<=upper)) || OverrideFlag=='Y')
        fFailTest = FALSE;
    else
        fFailTest = TRUE;
}
}
if (fFailTest) {
CString strErrorMWg = "The index reading entered:" + reading;
    strErrorMWg += " falls outside the range ";
    strErrorMWg += lower + "-" + upper;
    strErrorMWg += " Do you want to override this test?";
if (IDYES == AfxMessageBox(strErrorMWg, MB_YESNO))
{
    //set flag for override
    OverrideFlag = "Y";
} else {
    reading.SetFocus();
    return FALSE;
}
}
return TRUE;

```

---

Validation checks in Completion mode:

- Selection of Action Taken is required to complete the order. If the Complete button is selected, the Action Taken buttons are enabled for selection. If the Incomplete button is selected, the Action Taken buttons will be cleared and disabled.
- If the Action Taken is 'Set', the order must pass the 'Set Meter' validation. The text 'AT=Set' will automatically be copied into the Remarks field when the completion data is saved.
- If the Action Taken is 'Change', the order must pass the 'Set Meter' AND 'Remove Meter' validation. The text 'AT=Change' will automatically be copied into the Remarks field when the completion data is saved.
- If the Action Taken is 'Remove', the order must pass the 'Remove Meter' validation. The text 'AT=Remove' will automatically be copied into the Remarks field when the completion data is saved.
- If the Action Taken is 'Other', the order must pass the 'Other' validation.

Validation checks for 'Remove Meters':

- Selection of Removal Reason is required.
- A reading for each register on the meter must be entered.
- The Service Removed check box is optional. If the Service Removed checkbox is checked, the text "Service Removed" will automatically be copied to the Remarks field when the completion data is saved.
- If the bill multiplier associated with the existing meter is greater than 1, the user must navigate to the Equipment screen.

Validation checks for 'Set Meters':

- Meter number, register group, service profile, bill multiplier, set voltage, location, rate schedule, EMR read method, drop type, and #svc wires are required fields and must be entered.
- If the selected register group contains a register reading code of 'KW', then demand threshold is a required field and must be entered; otherwise the field is disabled.
- The meter access 1, meter form, meter access 2, program id, seal number, svc facility pt, load research#, and next to meter nbr fields are optional. If the Next to Meter Nbr is entered, the number will automatically be copied into the Remarks field prefixed with a label of 'NxtMtr#=' when the completion data is saved.
- If the bill multiplier associated with the new meter is greater than 1, the user must navigate to the Equipment screen.

Validation checks for 'Other':

- An entry must be selected from the Other action taken list box. The selected Other action taken text will automatically be copied into the Remarks field prefixed with a label of 'AT=' when the completion data is saved.

Validation for ALL action taken:

- Selection of Complete or Incomplete is required. If Action Taken is selected, the Complete button must be selected. If the Incomplete button is selected, the Action Taken buttons will be cleared.
- If Incomplete is selected, the user must select an Incompletion Reason. The Incompletion Reason list will be populated with the reasons associated with an order of this type. The selected Incompletion Reason text will automatically be copied into the Remarks field prefixed with a label of 'IR=' when the completion data is saved.

- If Complete is selected AND the Spare 1 column in the Field Order Type table is 'Y', the Business Center Review checkbox will be enabled; otherwise the checkbox will be disabled.
- If Complete is selected, the Remarks Required flag for the order type will indicate if remarks are required. The Remarks Required flag values are 0: no remarks required, 1: standard and/or freeform required, or 2: standard remarks required. If the flag is 1, the user must enter standard or freeform remarks. If the flag is 2, the user must select a standard remark.
- If the selected 'Other' action taken text has an associated Standard Remarks Required field of 'Y', the user must select a standard remark from the list.
- If the selected incompleteness reason has an associated Standard Remarks Required field of 'Y', the user must select a standard remark from the list.
- The Standard Remarks list box will be populated with remarks that correspond to the order type being worked. The selected Standard Remark will automatically be copied to the Remarks field prefixed with a label of 'SR=' when the completion data is saved.
- If the selected standard remark has a Freeform Remarks Required field of 'Y', the user must enter something in the Remarks field; otherwise freeform remarks are optional.
- If the selected incompleteness reason has a Review By Required field of 'Y', the Review Required By checkbox is automatically selected and disabled. If the selected incompleteness reason has a Review By Required field of 'X', the Review Required By checkbox is disabled without being selected. Otherwise the Review Required By checkbox is enabled and can be checked if desired.
- If Review Required By is selected, the user must select an entry from the corresponding list of reviewers.
- If the order is Complete and the Action Taken is 'Set' or 'Change', the Transformer Facility Point is a required field. The field will be pre-populated with the current Transformer Facility Point, if one exists. The format of the field is 99999999.99999999. If the order is Incomplete, the Transformer Facility Point field is disabled. If the Transformer Facility Point is entered, the entire field length is required (e.g. 8 digits to the left of the decimal and 7 digits to the right of the decimal).

## Data Updates

The field order is updated when the user navigates to another screen. The database is not updated until the order is completed.

When the order is completed, the Server updates the field order database tables with the data from the completed order data transaction.

## Meter Set/Change/Remove Primary Detail Screen (option 2)

### Function/Process Description

The Meter Set/Change/Remove Primary Detail screen is for displaying and completing the meter set, change, or remove field orders.

This is a primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the completion fields are enabled for input.

### Data Fields

Field Name	Description
Common Info	Information associated with the order/customer ( <i>READ-ONLY</i> ).
Name	The customer name of the order.
Address	The address of the order/customer.
City	The city of the order/customer.
Order Type	The Description of the order/job.
Appt	The appointment time frame of the order.
Service	The service phone number of the order/customer.
Contact	The contact phone number of the order/customer.
Life Support	The life support of the order/job.

Field Name	Description
Remove Meter	Information associated with the removed meter/service
Meter Number	This is the number of the existing meter. This field is read-only and cannot be modified.
Loc	The location of the meter (Read-only).
Rmt Port	The remote port of the meter (Read-only).
AMR#	The AMR number of the meter (Read-only).
UsageCd/Type	This field is used to indicate the read usage code/type associated with the entered reading. This list is populated with all the usage codes/types from the DHTREAD table. The read usage code and type code are decoded using the read usage validation tables (DHTRDUCD & DHTRTYPC) and the descriptions are displayed in the list with a delimiter “/”.
Dials	The number dials of the reading.
Read	This field contains the reading associated with the selected register. The readings will be masked based on the Dials and the Precision which is stored in the DHTPRGID and that will be determine by the combination of read usage code, read type code, meter point type code, and program id code.
Reason	This field is used to indicate the reason the existing meter was removed. This list is populated using the removal reason validation table (DHTRMRSN).
Set Meter	Information associated with the new meter/service.
Meter Number	The number of the new meter being set.
Mfgr	The manufacture of the new meter.
Model	The model of the new meter.
Acct	The type of account that the meter will be installed.
Svc Pt	The service point type of the new meter.
Mult.	The multiplier of the new meter.
Loc	The location of the new meter.
AMR#	The AMR number of the new meter.
Mtr Pt	The meter point type of the new meter.
Phase	The phase of the new meter.
Rmt	The remote port of the new meter.
In Series w/	The series of the new meter.
Program Id	The program id of the new meter.
Status	The status (status left) of the new meter.

Field Name	Description
UsageCd/Type	This field is used to indicate the read usage code/type associated with the entered reading. This list is populated with all the usage codes/types from the DHTREAD table. The read usage code and type code are decoded using the read usage validation tables (DHTRDUCD & DHTRTYPC) and the descriptions are displayed in the list with a delimiter “/”.
Dials	The number dials of the reading.
Read	This field contains the reading associated with the selected register. The readings will be masked based on the Dials and the Precision which is stored in the DHTPRGID and that will be determine by the combination of read usage code, read type code, meter point type code, and program id code.
Bill Group	The bill group of the order/job.
Order Information	
Order Remarks	This field contains the remarks of the order that was sent down from the Host System. (Read-Only)
Completion Information:	
Complete/ Incomplete	An indicator to identify the status the field order was left in. If Complete, the status of the order will be Complete/Worked. If Incomplete, the status of the order is Incomplete/Worked.
Incompletion Reason	A set of reasons the order was incomplete. This field is required if Incomplete is selected. The list box is populated using the incompletion reasons process table (DHTINRSN) based on the order type.
Standard Remarks	A set of standard remarks the user can select. The list box is populated using the standard completion remarks validation table (DHTCREMK) based on the order type.
Remarks	Freeform remarks the user can use to document what occurred while completing/incompleting the order.
Follow-up Required	Indicates the user completing the order expects there's more job need to be done.
Supervisor Review	Indicates someone should review the order.
Review Text	A set of users who are available to review the order. The list is populated using the review required by validation table (DHTRVWRQ) table. The user can select only one entry from the list. This field is disabled until the Review Required By checkbox is checked. If the Review Required By checkbox is checked, this field is required.
Pick Up	An indicator to the software that the service rep did more work than required by the order at the site. This checkbox is disabled when Incomplete is selected, the order being completed is a pickup order, the order type does not exist in the valid pickup order type validation table (DHTPCKUP), or the order type exists in the DHTPCKUP table, meter data is required and the order does not have meter data; otherwise the checkbox is enabled. The checkbox is also disabled if a pickup order is being completed.

Field Name	Description
Billable	Indicates whether the order is billable.

## Buttons

Button Name	Description
Send	This button is used to validate and save data entered on the Meter Set/Change/Remove screen. The completion data is sent to the Server for processing. The user is navigated back to the field order list. This button is only enabled in completion mode.
Common View	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the Meter Set/Change/Remove screen is saved. This button is enabled in all modes.
Meter Info	This button is used to navigate to the Meter Information screen. Before the Meter Information screen is displayed, any data entered on the Meter Set/Change/Remove screen is saved. This button is enabled if there is meter data associated with the order.
Gas Check	This button is used to navigate to the Gas Check Information screen. Before the Gas Check Information screen is displayed, any data entered on the Meter Set/Change/Remove screen is saved. This button is enabled if there is gas/flue check data associated with the order.
Verify	This button is used to send a Meter Validation transaction to the Server application to validate the new/updated Meter information. The validation is only sent when this button is selected in the Mobile Workstation. The Dispatch Workstation application does not require the validation of Meter data. This button is only enabled in Completion mode.
Regulator Inspection	This button is used to navigate to the Regulator Inspection Information screen. Before the Regulator Inspection Information screen is displayed, any data entered on the Meter Set/Change/Remove screen is saved. This button is enabled in all modes if the order has a gas meter set/installed.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
AMR	This button is used to navigate to the AMR information screen. Before the AMR information screen is displayed, any data entered on the Meter Set/Change/Remove screen is saved. This button is always enabled.
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list. In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user will be prompted to confirm the cancel status.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field

order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the field order is updated with any data that has been entered on this screen.

When the Send button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, a message is displayed asking the user to confirm order completion. If the user presses Yes, the field order on the hard drive is updated; otherwise the screen is redisplayed. If the Additional Work Performed checkbox is checked, the Pickup Related Orders screen will be displayed. The completion data will not be sent until after the user indicates what type and how many orders are being picked up.

If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is 'Y', a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

If no additional work was performed, a completed order data transaction is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. If the order being completed is a pickup order, the transaction control record for the "original" order type will be checked. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router. The Router will convert the completed order data transaction into the proper transaction format and send the transaction to the appropriate external applications (e.g. Host System, etc.).

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When the Send button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

The Incompletion Reason list is populated using the incompletion reason process table (DHTREASN). The entries in this table contain the associated reason code type. Only the reasons for the code type ('I') being worked is loaded into the list. Each entry has additional codes to drive much of the remaining validation. The additional codes are Standard Remarks Required and Review By Required.

When the screen is first displayed in completion mode, the remove meter fields and the set meter fields are disabled. They will be enabled based on the selected order type (Set/Remove/Change). If the order has the set meter data or it is Set or Change order, the set meter fields (Meter number, Manufacture, Model) are enabled on the initialization, once the meter has been verified, all other set meter fields are enabled.

The number of digits in the meter reading must be less than or equal to the number of dials for the register. The number of dials is passed from the Host System with the order data.

A reading of zero is valid. The reading will be right justified and padded with zeroes on the right before the reading is sent to the Host System, the decimal point will be placed with the precision calculated based on the NUMBER\_PRECISION and the DIALS.

A high/low test is performed against the entered reading, if the upper/lower limits are not zero. If the upper and lower limits are zero, no high/low test is performed. If the reading fails the high/low test, the user can correct the reading or override the high/low test. The override flag is stored with the reading in the database. The following is the code snippet of the high/low test used in the Oracle Utilities Mobile Workforce Management product.

```

if ((upper > 0) || (lower > 0)) {
if (upper < lower) {
    if (((reading>=lower) || (reading<=upper)) ||
OverrideFlag=='Y')
        fFailTest = FALSE;
    else
        fFailTest = TRUE;
} else {
    if(((reading>=lower) && (reading<=upper)) || OverrideFlag=='Y')
        fFailTest = FALSE;
    else
        fFailTest = TRUE;
}
}
if (fFailTest) {
CString strErrorMWg = "The index reading entered:" + reading;
    strErrorMWg += " falls outside the range ";
    strErrorMWg += lower + "-" + upper;
    strErrorMWg += " Do you want to override this test?";
if (IDYES == AfxMessageBox(strErrorMWg, MB_YESNO))
{
    //set flag for override
    OverrideFlag = "Y";
} else {
    reading.SetFocus();
    return FALSE;
}
}
return TRUE;

```

Validation checks in Completion mode:

- If the completion status is Incomplete, the Reason will need to be entered on this screen. The user can enter a return date greater than the current date. If the completion status is Complete, either the Completion Reason, Completion Remarks, or both will need to be entered based the CMPL\_REMARKS\_REQ field in the field order type table.

Validation checks for 'Remove Meters':

- A reading for each usage on the meter will need to be entered based on the METER\_READ\_REQ for the order type.
- The Reason will be needed if the Hi/Lo testing has failed.

Validation checks for 'Set Meters':

- Meter number, manufacture, model, account, service point, multiplier, location, meter point, remote port, program id, and status must be entered.
- A reading for each usage on the meter will need to be entered based on the METER\_READ\_REQ for the order type.

## Data Updates

The field order is updated when the user navigates to another screen. The database is not updated until the order is completed.

When the order is completed, the Server updates the field order database tables with the data from the completed order data transaction.

## Meter Test Primary Detail Screen

### Function/Process Description

The Meter Test Primary Detail screen is for displaying and completing the GMI, GMW, RMT, RPT, RST, SMW, VMC, and VSI field orders.

This is a primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the completion fields are enabled for input.

### Data Fields

Field Name	Description
Service Profile	The profile description associated with the service on this order. This field is decoded using the service profile validation table (DHTSVPRF).
Meter Information	Information pertaining to the meter on the order.
Meter Number	The number of the meter on the order.
Reg Grp	The register group associated with the meter on the order.
Last Tested	The date the meter on the order was last tested.
Class	The class associated with the meter on the order.
Type	The type of the meter on the order.
Reg Mod	The register modifier associated with the meter on the order.

Field Name	Description
Inst Volt	The installed volts for the meter on the order.
KR	The register constant associated with the meter on the order.
KH	The watt-hour constant associated with the meter on the order.
Axlry Equip	The auxiliary equipment associated with the meter on the order.
RS	The gear reduction between worm or spur gear on disk shaft and meshing of gear wheel of register associated with the meter on the order.
Demand Threshold	The maximum demand calculated for customer load and metering equipment associated with the meter on the order.
RR	The register ratio of the meter on the order. This field will be populated using the DHTFOEXT.CUSTOM_2 column and will contain the Ratio Number, Ratio Numerator, and Ratio Denominator concatenated together.
Inst Form	The wiring and base used to install the meter on the order.
Bill Multiplier	The bill multiplier associated with the meter on the order.
Instrument Transformers	Information pertaining to the instrument transformers associated with the meter on the order.
Code	The code that defines the type of instrument transformer.
Serial#	The serial number associated with the instrument transformer.
Type	The specific type associated with the instrument transformer.
Brdn	The load burden associated with the CT expressed in volt-amperes.
RF	The rating factor by which the primary current of a transformer can be multiplied and still maintain accuracy.
Ratio	The ratio at which the current transformer is installed. This field is formatted by concatenating the upper portion ratio, a slash, and the lower portion of the ratio (e.g. 9999/9).
Turns	The number of turns associated with the instrument transformer.
Meas Ratio	The last measured ratio associated with the instrument transformer.
Meter Reading	
Cut At	This field contains the location where the service was cut (e.g. Cut At Pole, Cut At Meter, etc.) if the service is currently disconnected. The cut at code will be decoded using the action taken table (DHTACTN) using the order type of 'DIS'.
Action Taken	This field is used to indicate the action taken by the user to complete this order. The list is populated with the associated actions for the order type being worked using the action taken process table (DHTACTN).

Field Name	Description
Register	This field is used to indicate the register read type associated with the entered reading. This list is populated with all the reading types from the DHTREAD table. The reading type code is decoded using the reading type validation table (DHTRTYPC) and the description is displayed in the list.
Read	This field contains the reading associated with the selected register. The readings will be read and entered right to left.
Completion Information:	
Complete/ Incomplete	An indicator to identify the status the field order was left in. If Complete, the status of the order will be Complete/Worked. If Incomplete, the status of the order is Incomplete/Worked.
Incompletion Reason	A set of reasons the order was incomplete. This field is required if Incomplete is selected. The list box is populated using the incompletion reasons process table (DHTINRSN) based on the order type.
Additional Work Performed	An indicator to the software that the service rep did more work than required by the order at the site. This checkbox is disabled when Incomplete is selected, the order being completed is a pickup order, the order type does not exist in the valid pickup order type validation table (DHTPCKUP), or the order type exists in the DHTPCKUP table, meter data is required and the order does not have meter data; otherwise the checkbox is enabled. The checkbox is also disabled if a pickup order is being completed.
Standard Remarks	A set of standard remarks the user can select. The list box is populated using the standard completion remarks validation table (DHTCREMK) based on the order type.
Remarks	Freeform remarks the user can use to document what occurred while completing/incompleting the order.
Review Required By	Indicates someone should review the order.
Review Required Text	A set of users who are available to review the order. The list is populated using the review required by validation table (DHTRVWRQ) table. The user can select only one entry from the list. This field is disabled until the Review Required By checkbox is checked. If the Review Required By checkbox is checked, this field is required.
Business Center Review	Indicates the user completing the order expects the Business Center to complete their activity; otherwise the Business Center Review activity, if one exists, will automatically be closed.
Transformer Facility Point	If the completion status for the order is Complete, this field will be enabled. This field will be populated with the current facility point for the site on this order. The user can modify this field.
Return Date	If the completion status for the order is Incomplete, the field will be enabled. The user can specify the new date for which the order is to be scheduled.

Field Name	Description
Assign Order to Same Tech	If the completion status for the order is Incomplete, the checkbox will be enabled. Indicates if the order should be assigned back to the same technician.
Billable	Indicates whether the order is billable.

## Buttons

Button Name	Description
Send	This button is used to validate and save data entered on the Meter Test screen. The completion data is sent to the Server for processing. The user is navigated back to the field order list. This button is only enabled in completion mode.
Common View	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the Meter Test screen is saved. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Since the user is already on the primary detail screen, this button is disabled.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. Before the Meter Information screen is displayed, any data entered on the Meter Test screen is saved. This button is enabled if there is meter data associated with the order.
Usage History	This button is used to navigate to the Usage History Information screen. Before the Usage History Information screen is displayed, any data entered on the Meter Test screen is saved. This button is enabled in all modes.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list. In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user will be prompted to confirm the cancel status.
Equipment	This button is used to navigate to the Equipment screen. Before the Equipment displayed, any data entered on the Meter Test screen is saved.
Dispatch	This button is always disabled. Orders cannot be dispatched from this screen.

Button Name	Description
Reassign	This button is always disabled. Orders cannot be reassigned from this screen.
Cancel Order	This button is always disabled. Orders cannot be cancelled from this screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the field order is updated with any data that has been entered on this screen.

When the Send button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, a message is displayed asking the user to confirm order completion. If the user presses Yes, the field order on the hard drive is updated; otherwise the screen is redisplayed. If the Additional Work Performed checkbox is checked, the Pickup Related Orders screen will be displayed. The completion data will not be sent until after the user indicates what type and how many orders are being picked up.

If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is 'Y', a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

If no additional work was performed, a completed order data transaction is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. If the order being completed is a pickup order, the transaction control record for the "original" order type will be checked. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router. The Router will convert the completed order data transaction into the proper transaction format and send the transaction to the appropriate external applications (e.g. Host System, etc.).

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When the Send button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

The Action Taken list will be populated using the action taken process table (DHTACTN). The entries in this table will contain the associated order type. Only the actions for the order type being worked will be loaded into the list. Each entry will have additional codes to drive much of the remaining validation. The additional codes will be Payment Information Required, Meter Reading Required, Standard Remarks Required, and Incompletion Required. The valid values for the additional code fields are 'Y' – required, 'O' – optional, and 'X' – disabled.

The Incompletion Reason list will be populated using the incompletion reason process table (DHTINRSN). The entries in this table will contain the associated order type. Only the reasons for the order type being worked will be loaded into the list. Each entry will have additional codes to drive much of the remaining validation. The additional codes will be Standard Remarks Required and Review By Required. The valid values for the additional code fields are 'Y' – required, 'O' – optional, and 'X' – disabled.

If the order being worked is a pickup order, the Incomplete button is disabled. Pickup orders cannot be incomplete; otherwise the initial selection of the Complete/Incomplete button will first depend on the value of the Spare 3 field (Can Order Be Incomplete?) of the Field Order Type table. If the field is 'N', the Complete button is selected automatically and the Incomplete button is disabled. If the Spare 3 field is 'Y', the Complete button will be initially selected on this screen; however the final selection of the Complete/Incomplete button will depend on the Incompletion Required field for the selected action taken. If No action taken was selected or the Incompletion Required field is 'O' (optional), both the Complete and Incomplete buttons will be enabled with the Complete button automatically selected. If the Incompletion Required field is 'Y', the Complete button will be disabled and the Incomplete button will be automatically selected. If the Incompletion Required field is 'X', the Incomplete button is disabled and the Complete button is automatically selected.

If the completion status is Incomplete, the Return Date and Assign Order To Same Tech fields will be enabled on this screen. The user can enter a return date greater than the current date. Optionally, the user can check the Assign Order to Same Crew checkbox to have the order automatically assigned back to them when the order is scheduled/routed on the return date. If the Assign Order To Same Tech checkbox is checked, the user must enter a return date. The scheduling module will be responsible for rescheduling/reassigning all other incomplete orders.

The number of digits in the meter reading must be less than or equal to the number of dials for the register. The number of dials will be passed from the Host System with the order data.

A reading of zero is valid. The reading will be right justified and padded with zeroes on the left before the reading is sent to the Host System.

A high/low test will be performed against the entered reading, if the upper/lower limits are not zero. If the upper and lower limits are zero, no high/low test will be performed. If the reading fails the high/low test, the user can correct the reading or override the high/low test. The override flag is stored with the reading in the database. The following is the code snippet of the high/low test used in the Oracle Utilities Mobile Workforce Management product.

---

```
if ((upper > 0) || (lower > 0)) {
    if (upper < lower) {
        if ((reading >= lower) || (reading <= upper)) ||
OverrideFlag == 'Y')
            fFailTest = FALSE;
        else
            fFailTest = TRUE;
    } else {
        if ((reading >= lower) && (reading <= upper)) || OverrideFlag == 'Y')
            fFailTest = FALSE;
        else
            fFailTest = TRUE;
    }
}
if (fFailTest) {
CString strErrorMWg = "The index reading entered:" + reading;
strErrorMWg += " falls outside the range ";
strErrorMWg += lower + "-" + upper;
strErrorMWg += " Do you want to override this test?";
if (IDYES == AfxMessageBox(strErrorMWg, MB_YESNO))
{
```

```

        //set flag for override
        OverrideFlag = "Y";
    } else {
        reading.SetFocus();
        return FALSE;
    }
}
return TRUE;

```

---

### Validation checks in Completion mode:

Action Taken is a required selection if complete selected. The selected Action Taken text will automatically be copied into the Completion Remarks field prefixed with a label of 'AT=' when the completion data is saved.

If the selected action taken has an associated Meter Reading Required flag of 'Y', the register and reading fields will be enabled and the user must enter a meter reading for each register on the meter. If the Meter Reading Required flag is 'O', the register and reading fields are enabled and the user may optionally enter readings. If the Meter Reading Required flag is 'X', the register and reading fields are disabled.

Selection of Complete or Incomplete is required.

If Incomplete is selected, the user must select an Incompletion Reason. The Incompletion Reason list will be populated with the reasons associated with an order of this type. The selected Incompletion Reason text will automatically be copied into the Remarks field prefixed with a label of 'IR=' when the completion data is saved.

If Complete is selected AND the Spare 1 column in the Field Order Type table is 'Y', the Business Center Review checkbox will be enabled; otherwise the checkbox will be disabled.

If Complete is selected, the Remarks Required flag for the order type will indicate if remarks are required. The Remarks Required flag values are 0: no remarks required, 1: standard and/or freeform required, or 2: standard remarks required. If the flag is 1, the user must enter standard or freeform remarks. If the flag is 2, the user must select a standard remark.

If the selected action taken has an associated Standard Remarks Required field of 'Y', the user must select a standard remark from the list.

If the selected incompletion reason has an associated Standard Remarks Required field of 'Y', the user must select a standard remark from the list.

The Standard Remarks list box will be populated with remarks that correspond to the order type being worked. The selected Standard Remark will automatically be copied to the Remarks field prefixed with a label of 'SR=' when the completion data is saved.

If the selected standard remark has a Freeform Remarks Required field of 'Y', the user must enter something in the Remarks field; otherwise freeform remarks are optional.

If the selected incompletion reason has a Review By Required field of 'Y', the Review Required By checkbox is automatically selected and disabled. If the selected incompletion reason has a Review By Required field of 'X', the Review Required By checkbox is disabled without being selected. Otherwise the Review Required By checkbox is enabled and can be checked if desired.

If Review Required By is selected, the user must select an entry from the corresponding list of reviewers.

If the order is Complete, the user may update the Transformer Facility Point. The format of the field is 99999999.9999999. If the order is Incomplete, the Transformer Facility Point field is disabled. If the Transformer Facility Point is entered, the entire field length is required (e.g. 8 digits to the left of the decimal and 7 digits to the right of the decimal).

## **Data Updates**

The field order is updated when the user navigates to another screen. The database is not updated until the order is completed.

When the order is completed, the Server updates the field order database tables with the data from the completed order data transaction.

## POU/BREAK Primary Detail Screen

### Function/Process Description

The POU/BREAK Detail screen is for displaying and completing the Period of Unavailable/BREAK orders. This is a primary detail screen and all fields are read-only.

### Data Fields

Field Name	Description
Damage Location:	
Schedule From	The schedule from date time of the POU/BREAK.
Schedule End	The schedule end date time of the POU/BREAK.
Address	The POU/BREAK's address.
Remarks	Order specific remarks.

### Buttons

Button Name	Description
Complete	This button is used to complete and send the data to the Server application for processing. The user is navigated back to the field order list.
Cancel	This button is used to cancel any changes entered on the screen and return to the field order list. It is only enabled for a POU.

### Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the Complete button is selected, the completion data will be sent with the status of “C” completion status and “W” worked tracking status to the Oracle Utilities Mobile Workforce Management Server Application.

If the application is communicating in a ‘Wireless’ mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is ‘Y’, a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

If the application is communicating in a ‘Wired’ mode (Dispatch Workstation is always ‘Wired’), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a ‘Wireless’ mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is ‘Y’, the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a ‘Wired’ mode. If the order being completed is a pickup order, the transaction control record for the “original” order type will be checked. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router. The Router will convert the completed order data transaction into the proper transaction format and send the transaction to the appropriate external applications (e.g. Host System, etc.).

### **Validation**

None.

### **Data Updates**

The data is sent to the Server. The Server will update the scheduling database tables with the data.

## Underground Locate Primary Detail Screen

### Function/Process Description

The Under Ground Locate Primary Detail screen is for displaying and completing the UGE and UGL field orders. This is a primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the completion fields are enabled for input.

### Data Fields

Field Name	Description
Underground Locate Details	
Requested Date/Time	The date/time the locate was called in.
Work to Begin Date	The date the actual work requiring the locate is to begin.
Notice Type	The type of notice associated with the locate.
Blasting	Indicates if the work to be done includes blasting.
Boring	Indicates if the work to be done includes boring.
Depth	The depth the requestor expects to dig.
Work Type	The type of work requiring the locate.
Work Being Done For	The actual name for whom the locate is being done.

Field Name	Description
Company Name	The name of the company requiring the locate.
Township	The township where the locate is to be performed.
Range	The range where the locate is to be performed.
Section	The section where the locate is to be performed.
Location of Work	The location of the work associated with the locate.
Remarks	The remarks associated with the locate.
Action Taken to Complete Locate	This field is used to indicate the action taken by the user to complete this order. The list is populated with the associated actions for the order type being worked using the action taken process table (DHTACTN).
Completion Information:	
Complete/ Incomplete	An indicator to identify the status the field order was left in. If Complete, the status of the order will be Complete/Worked. If Incomplete, the status of the order is Incomplete/Worked.
Incompletion Reason	A set of reasons the order was incomplete. This field is required if Incomplete is selected. The list box is populated using the incompletion reasons process table (DHTINRSN) based on the order type.
Additional Work Performed	An indicator to the software that the service rep did more work than required by the order at the site. This checkbox is disabled when Incomplete is selected, the order being completed is a pickup order, the order type does not exist in the valid pickup order type validation table (DHTPCKUP), or the order type exists in the DHTPCKUP table, meter data is required and the order does not have meter data; otherwise the checkbox is enabled. The checkbox is also disabled if a pickup order is being completed.
Standard Remarks	A set of standard remarks the user can select. The list box is populated using the standard completion remarks validation table (DHTCREMK) based on the order type.
Remarks	Freeform remarks the user can use to document what occurred while completing/incompleting the order.
Review Required By	Indicates someone should review the order.
Review Required Text	A set of users who are available to review the order. The list is populated using the review required by validation table (DHTRVWRQ) table. The user can select only one entry from the list. This field is disabled until the Review Required By checkbox is checked. If the Review Required By checkbox is checked, this field is required.
Business Center Review	Indicates the user completing the order expects the Business Center to complete their activity; otherwise the Business Center Review activity, if one exists, will automatically be closed.

Field Name	Description
Transformer Facility Point	This field will always be disabled for UGL and UGE type orders.
Return Date	If the completion status for the order is Incomplete, the field will be enabled. The user can specify the new date for which the order is to be scheduled.
Assign Order to Same Tech	If the completion status for the order is Incomplete, the checkbox will be enabled. Indicates if the order should be assigned back to the same technician.
Billable	Indicates whether the order is billable.

## Buttons

Button Name	Description
Send	This button is used to validate and save data entered on the Underground Locate screen. The completion data is sent to the Server for processing. The user is navigated back to the field order list. This button is only enabled in completion mode.
Common View	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the Underground Locate screen is saved. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Since the user is already on the primary detail screen, this button is disabled.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. This button is always disabled since there is no meter data associated with the order.
Usage History	This button is used to navigate to the Usage History Information screen. This button is always disabled since there is no usage history associated with the order.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list. In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user will be prompted to confirm the cancel status.
Equipment	This button is used to navigate to the Equipment screen. This button is always disabled since there is no equipment data associated with the order.

Button Name	Description
Dispatch	This button is always disabled. Orders cannot be dispatched from this screen.
Reassign	This button is always disabled. Orders cannot be reassigned from this screen.
Cancel Order	This button is always disabled. Orders cannot be cancelled from this screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the field order is updated with any data that has been entered on this screen.

When the Send button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, a message is displayed asking the user to confirm order completion. If the user presses Yes, the field order on the hard drive is updated; otherwise the screen is redisplayed.

If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is 'Y', a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

A completed order data transaction is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router. The Router will convert the completed order data transaction into the proper transaction format and send the transaction to the appropriate external applications (e.g. Host System, etc.).

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When the Send button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

The Action Taken To Complete Locate list will be populated using the action taken process table (DHTACTN). The entries in this table will contain the associated order type. Only the actions for the order type being worked will be loaded into the list. Each entry will have additional codes to drive much of the remaining validation. The additional codes will be Payment Information Required, Meter Reading Required, Standard Remarks Required, and Incompletion Required. The valid values for the additional code fields are 'Y' – required, 'O' – optional, and 'X' – disabled.

The Incompletion Reason list will be populated using the incompletion reason process table (DHTINRSN). The entries in this table will contain the associated order type. Only the reasons

for the order type being worked will be loaded into the list. Each entry will have additional codes to drive much of the remaining validation. The additional codes will be Standard Remarks Required and Review By Required. The valid values for the additional code fields are 'Y' – required, 'O' – optional, and 'X' – disabled.

If the order being worked is a pickup order, the Incomplete button is disabled. Pickup orders cannot be incomplete; otherwise the initial selection of the Complete/Incomplete button will first depend on the value of the Spare 3 field (Can Order Be Incomplete?) of the Field Order Type table. If the field is 'N', the Complete button is selected automatically and the Incomplete button is disabled. If the Spare 3 field is 'Y', the Complete button will be initially selected on this screen; however the Incomplete button can be selected. If the Complete button is selected, the Action Taken To Complete Locate list box will be enabled. If the Incomplete button is selected, the Action Taken To Complete Locate list box is cleared and disabled.

If the completion status is Incomplete, the Return Date and Assign Order To Same Tech fields will be enabled on this screen. The user can enter a return date greater than the current date. Optionally, the user can check the Assign Order to Same Crew checkbox to have the order automatically assigned back to them when the order is scheduled/routed on the return date. If the Assign Order To Same Tech checkbox is checked, the user must enter a return date. The scheduling module will be responsible for rescheduling/reassigning all other incomplete orders.

Validation checks in Completion mode:

An Action Taken to Complete Locate must be selected to Complete the order. If the Incomplete button is selected, the Action Taken To Complete Locate field will be cleared and disabled. The selected Action Taken To Complete locate text will automatically be copied into the Remarks field prefixed with a label of 'AT=' when the completion data is saved.

Selection of Complete or Incomplete is required.

If Incomplete is selected, the user must select an Incompletion Reason. The Incompletion Reason list will be populated with the reasons associated with an order of this type. The selected Incompletion Reason text will automatically be copied into the Remarks field prefixed with a label of 'IR=' when the completion data is saved.

If Complete is selected AND the Spare 1 column in the Field Order Type table is 'Y', the Business Center Review checkbox will be enabled; otherwise the checkbox will be disabled.

If the selected action taken to complete locate has an associated Standard Remarks Required field of 'Y', the user must select a standard remark from the list.

If the selected incompletion reason has an associated Standard Remarks Required field of 'Y', the user must select a standard remark from the list.

The Standard Remarks list box will be populated with remarks that correspond to the order type being worked. The selected Standard Remark will automatically be copied to the Remarks field prefixed with a label of 'SR=' when the completion data is saved.

If the selected standard remark has a Freeform Remarks Required field of 'Y', the user must enter something in the Remarks field; otherwise freeform remarks are optional.

If the selected incompletion reason has a Review By Required field of 'Y', the Review Required By checkbox is automatically selected and disabled. If the selected incompletion reason has a Review By Required field of 'X', the Review Required By checkbox is disabled without being selected. Otherwise the Review Required By checkbox is enabled and can be checked if desired.

If Review Required By is selected, the user must select an entry from the corresponding list of reviewers.

## Data Updates

The field order is updated when the user navigates to another screen. The database is not updated until the order is completed.

When the order is completed, the Server updates the field order database tables with the data from the completed order data transaction.

## Water Heater Repair Primary Detail Screen

### Function/Process Description

The Water Heater Repair Primary Detail screen is for displaying and completing the water heater repair field orders. This is a primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the completion fields are enabled for input.

### Data Fields

Field Name	Description
Water Heater Repair Information	
Company #	Company Number
Manufacturer #	Manufacturer Number
Size	The Water Heater Size. Field is populated from DHTWHSZ table.
Date Installed	Date of the installation.
Completion Information:	
Complete	An indicator to identify the status the field order was left in. If Complete, the status of the order will be Complete/Worked.
Cancel	If Cancel, the status of the order will be Complete/Cancel
Suspend	If suspend, the status of the order is Incomplete/Worked.
Theft of Service	Indicates if there was a theft of service. Yes or No can be selected.

Field Name	Description
Reason	This field contains the reason the order was incomplete. The field is required if Incomplete is selected.
Order Disposition	A set of order disposition the user can select This list is populated from DHTODIPT.
Standards Remarks Category	A set of standard remarks category the user can select. The list is populated from DHTSTDMK
Standard Remarks Text	A set of standard remarks the user can select. The list box is populated based on category selected (DHTSTDMK)
Completion Remarks	Freeform remarks the user can use to document what occurred while completing/incompleting the order.
Supervisor Review checkbox	Indicates someone should review the order.
Review Required Text	This field contains the remarks/comments of the review. The field is required if the Supervisor Review is selected.
Pick up	Indicates the pick up order(s) will be needed to complete this order.
Billable	Indicates whether the order is billable.

## Buttons

Button Name	Description
OK	This button is used to save the Water Heater Screen data and send it to the Server. A confirmation message is displayed before the data is sent. If the user confirms that they are done with the Water Heater Screen, the completion data is sent to the Server; otherwise the Water Heater Screen is re-displayed.
Common View	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the Water Heater Screen is saved. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type. Before the appropriate primary detail screen is displayed, any data entered on the Water Heater Screen is saved. This button is enabled in all modes.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. Before the Meter Information screen is displayed, any data entered on the Water Heater Screen is saved. This button is enabled if there is meter data associated with the order.
Usage History	This button is used to navigate to the Usage History Information screen. Before the Usage History Information screen is displayed, any data entered on the Water Heater Screen is saved. This button is enabled in all modes if the order has usage history.

Button Name	Description
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
Cancel	This button is used to cancel any changes entered on the screen and return appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type.
Parts	This button is used to navigate to the Parts screen. Before the Parts screen is displayed, any data entered on the Water Heater Screen is saved. This button is enabled in all modes.
Customer Charge	This button is disabled on this screen. The screen will be displayed when the OK button is hit when completing the order.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the field order is updated with any data that has been entered on this screen.

When the Send button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, a message is displayed asking the user to confirm order completion. If the user presses Yes, the field order on the hard drive is updated; otherwise the screen is redisplayed.

If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is 'Y', a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

A completed order data transaction is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router. The Router will convert the completed order data transaction into the proper transaction format and send the transaction to the appropriate external applications (e.g. Host System, etc.).

## Validation

Validation checks in Completion mode:

- Selection of Complete, Cancel, or Suspend is required.
- If Complete is selected.
- Theft of Service is required.

- The user must go to the parts screen and select at least one part.
- Order Disposition is required.
- If Supervisor Checkbox is selected, the review comments/remarks field is required.
- If Cancel is selected, the user must select a Reason. The Cancel Reason list will be populated with the reasons associated with an order of this type. Theft of Service is required. Order Disposition will become disabled.
- If Suspend is selected, the user must select a Reason. The Suspend Reason list will be populated with the reasons associated with an order of this type. Order Disposition, Standards Remarks Category, Standard Remarks Text will become disabled. Theft of Service is required.

### **Data Updates**

The field order is updated when the user navigates to another screen. The database is not updated until the order is completed.

When the order is completed, the Server updates the field order database tables with the data from the completed order data transaction.

## WAM Main Detail Screen

**WAM Main Detail**

**Task Details**

WOT: N 0800096 01 FO#: 000000000000236E Priority: 3 Crew: DEMD4 Due on: 2008/03/17 18:00

Order Remarks  
CATHYS BENCHMARK WORK ORDER #1

Asset: E CAK-ASSE CATHYS ASSET01 W/O DEPT

Class: Cat: N Component:

Loc: E 14009 SE 10th NE 100 san jose, CA 95128

**Task Progress**

Work Done: Amount Work Work Description

Failure: Mode:

Repair: Component:

Further Action:

**Completion Status**

Complete  Incomplete

Standard Remarks

Billable

Completion Remarks

Buttons: Send, Common View, Detail View, Order Header, Stock Charges, Direct Charges, Crew Time, Cancel, Notes, Material

### Function/Process Description

The WAM Main Detail screen is for displaying and completing WAM field orders. This is a primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the Task Progress and Completion Fields are enabled for input. Task Details are read-only.

### Data Fields

Field Name	Field Description
Task Details	The task details associated with the field order displayed. These fields are read-only and cannot be modified.
WOT ( <i>Type of Work</i> )	The WAM Work Type code (not the MWM order type code) for the order being displayed.
WOT ( <i>Work Order #</i> )	The WAM Work Order number for the order being displayed.
WOT ( <i>Work Order Task #</i> )	This field will contain the WAM Work Order Task number for the order being displayed.

<b>Field Name</b>	<b>Field Description</b>
FO#	The MWM Field Order number for the order being displayed.
Priority	The priority code associated with the MWM order type for the order being displayed.
Crew	The crew assigned to the order being displayed. If the order is not assigned to a crew, this field is empty.
Due On	The Due On date/time for the order being displayed.
Order Remarks	The Order Remarks for the order being displayed.
Asset ( <i>Record Type</i> )	The Record type of the WAM Asset associated with the order being displayed.
Asset ( <i>ID</i> )	The ID of the WAM Asset associated with the order being displayed.
Asset ( <i>Description</i> )	The Description of the WAM Asset associated with the order being displayed.
Class	The WAM Work Order Class for the order being displayed.
Cat	The WAM Category for the order being displayed.
Component ID	The WAM Component ID for the order being displayed.
Loc ( <i>Street Address</i> )	The Street Address for the WAM Asset associated with the order being displayed.
Loc ( <i>Suite/ Apartment</i> )	The Suite or Apartment number for the WAM Asset associated with the order being displayed.
Loc ( <i>City/ State</i> )	The City/State for the WAM Asset associated with the order being displayed.
Loc ( <i>Zip Code</i> )	The Zip Code for the WAM Asset associated with the order being displayed.
Task Progress	The task progress data related to the completion of this order. These fields are enabled in completion mode; otherwise they are read-only and cannot be modified.
Work Done Amount	The amount of work units done during the completion of this order. Valid range is 0-999. In browse mode, the value from the field order is displayed; otherwise, the field is empty and can be updated. This field is optional.
Work Done Unit	The type of work units done during the completion of this order. In browse mode, the value from the field order is displayed; otherwise, the field is empty and the drop-down list is populated from the DHTWAMWKUNT table. This field is optional.
Work Done Description	The field contains the type of work done during the completion of this order. If the order is being browsed, the value from the field order is displayed; otherwise, the field is empty and the drop-down list is populated from the DHTWAMWORK table. This field is optional.

<b>Field Name</b>	<b>Field Description</b>
Failure	The failure reported during the completion of this order. In browse mode, the value from the field order is displayed; otherwise, the field is empty and the drop-down list is populated from the DHTWAMFAILURE table. This field is optional.
Mode	The failure mode reported during the completion of this order. In browse mode, the value from the field order is displayed; otherwise, the field is empty and the drop-down list is populated from the DHTWAMFAILMODE table. This field is optional.
Repair	The type of repair done during the completion of this order. In browse mode, the value from the field order is displayed; otherwise, the field is empty and the drop-down list is populated from the DHTWAMREPAIR table. This field is optional.
Component	The field contains the component category repaired during the completion of this order. In browse mode, the value from the field order is displayed; otherwise, the field is empty and the drop-down list populated is populated from the DHTWAMCOMPNTCAT table. This field is optional.
Further Action	The further action report during the completion of this order. In browse mode, the value from the field order is displayed; otherwise, the field is empty and the drop-down list is populated. This list is populated from the available values in the DHTWAMFURTHERACT table. This field is optional.
Completion Status	Indicates the status the field order was left in. If you select Complete, the status of the order is set to Complete/Worked. If you select Incomplete, the status of the order is set to Incomplete/Worked. One of these must be selected.
Standard Remarks	The standard remarks associated with this order. In browse mode, the value from the field order is displayed; otherwise, the field is empty and the drop-down list is populated from the values associated to the order type in the DHTCREMK table. An entry must be selected if the DHTFOTYP.CMPL_REMARKS_REQ column for this order type is equal to '2'; otherwise, this field is optional.
Billable	Indicates whether the order is billable.
Completion Remarks	The freeform completion remarks for the order. In browse mode, the value from the field order is displayed; otherwise, the field is empty. If the DHTFOTYP.CMPL_REMARKS_REQ column for this order type is equal to '1', then you must either enter text into this field or select a standard remark from the list box. If the DHTFOTYP.CMPL_REMARKS_REQ column for this order type is not equal to '1', then this field is optional.

## Buttons

Button Name	Button Description
Send	Validates and saves data entered on the WAM Main Detail screen. The completion data is sent to the Server for processing and the user is returned to the field order list. This button is only enabled in completion mode.
Common View	Displays the Common Information screen. This button is enabled in all modes.
Detail View	Displays the appropriate primary detail field order screen. Since the user is already on the primary detail screen, this button is disabled.
Order Header	Displays the Order Header dialog. This button is always enabled.
Stock Charges	Displays the Stock Charges secondary completion screen. This button is always enabled.
Direct Charges	Displays the Direct Charges secondary completion screen. This button is always enabled.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
Cancel	<p>Cancels any changes entered on the screen and returns the user to the field order list.</p> <p>In the Mobile Workstation, if the status of the order is Enroute or Onsite, this button cancels the status of the order. The user will be prompted to confirm the cancel status.</p>
Notes	Displays the WAM Task Notes Informational screen. This button is always enabled.
Material	Displays the WAM Planned Material Informational screen. This button is always enabled.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the field order is updated with any data that has been entered on this screen.

When the Send button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the completion data passes validation, a message is displayed asking the user to confirm order completion. If the user selects Yes, the field order on the hard drive is updated; otherwise, the screen is redisplayed.

If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is 'Y', a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router.

The Router will convert the completed order data transaction into the proper transaction format and send the transaction to the appropriate external applications (e.g., Oracle Work and Asset Management.).

## Validation

The WAM Task Details fields are always read-only and cannot be modified. The Task Progress fields and the Completion fields are enabled in Completion mode only; otherwise they are read-only and cannot be modified.

The maximum length of the fields is equal to the length of the database column. The Work Done Amount field has a maximum length of 3 integer digits (maximum value is 999).

Selection of either Complete or Incomplete is required.

The DHTFOTYP.CMPL\_REMARKS\_REQ field for the order type determines whether or not remarks are required. If values are:

- '0' - no remarks are required
- '1' - either selection of a standard remark or entry of freeform text is required
- '2' - selection of a standard remark is required

The user can always enter both, but the required field must be entered.

When the Send button is selected on the WAM Primary Detail screen, the completion data is validated locally.

## Data Updates

The field order is updated when the user navigates to another screen. The database is not updated until the order is completed. When the order is completed, the Server updates the field order database tables with the data from the completed order data transaction.

## CC&B Primary Detail Screen

### Function/Process Description

The CC&B Order Types Primary Detail screen is for displaying and completing the CC&B order types supported in the base (SP01, SP02, MT01, MT02, MT03, MT04, MT05, MR01, IT01, IT02, IT03, IT04, and IT05). This is a primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the completion fields are enabled for input.

### Data Fields

Field Name	Description
Collection Details	
Order Type	This is used to display the order type description. The Order Type code is decoded using the Field Order Type table.
Service Point	
Service Point Id	This is the id of the service point on the order. This field is read-only and cannot be modified.
Disconnect Loc	This field is used to indicate the location where the service point was disconnected. This list is populated using the service point disconnect location code table.

<b>Field Name</b>	<b>Description</b>
Type	This field is used to display the service point type description. The service point type code is decoded using the Service Point Type code table.
Current Meter/Item	
Badge Number	This is the badge number of the existing meter/item. This field is read-only and cannot be modified.
Stock Loc	This field is used to indicate the stock location where the meter/item is being returned after removal. This list is populated using the stock location code table.
Config Type/ Item Type	This field is used to display the either the meter configuration type description of the existing meter or the item type description of the existing item. If a meter, the program id (meter type configuration) code is decoded using the Program Id (Meter Type Configuration) code table. If an item, the Item Type code is decoded using the Item Type code table.
Register	This field is used to indicate the register read type/use associated with the entered reading. This list is populated with all the reading types/reading uses from the Field Order Reading table (DHTREAD). This list box is disabled for items.
Reading	This field contains the reading associated with the selected register. A template built from the number of dials and number of decimals is initially displayed in the field. This field is disabled for items.
Installed Meter/Item	
Badge Number	The badge number of the new meter/item being installed.
Status	The status of the installed meter/item. This list is populated using the meter status code table (DHTMTRST). Meters and items share the same status codes.
Config Type	This configuration type of the meter being installed. The list is populated using the Program Id (Meter Configuration Type) code table. The selected configuration type is used to determine the number and type of registers associated with the installed meter. This list box is disabled for items.
Register	This field is used to indicate the register read type/use associated with the entered reading. This list is populated with all the reading types/reading uses from the selected Meter Configuration Type. This list box is disabled for items.
Reading	This field contains the reading associated with the selected register. A template built from the number of dials and number of decimals is initially displayed in the field. This field is disabled for items.
Completion Information:	
Complete/ Incomplete	An indicator to identify the status the field order was left in. If Complete, the status of the order is Complete/Worked. If Incomplete, the status of the order is Incomplete/Worked.
Incompletion Reason	A set of reasons the order was incomplete. This field is required if Incomplete is selected. The list box is populated using the incompletion reasons process table (DHTINRSN) based on the order type.

Field Name	Description
Billable	Indicates whether this is a billable order.
Pickup	An indicator to the software that the service rep did more work than required by the order at the site. This checkbox is disabled when Incomplete is selected, the order being completed is a pickup order, the order type does not exist in the valid pickup order type validation table (DHTPCKUP), or the order type exists in the DHTPCKUP table, meter data is required and the order does not have meter data; otherwise the checkbox is enabled. The checkbox is also disabled if a pickup order is being completed. If checked, the Pickup Related Orders screen will be displayed. The completion data will not be sent until after the user indicates what type and how many orders are being picked up.
Standard Remarks Text	A set of standard remarks the user can select. The list box is populated using the standard completion remarks validation table (DHTCREMK) based on the order type.
Remarks	Freeform remarks the user can use to document what occurred while completing/incompleting the order.
Supervisor Review Required	Indicates the order should be reviewed by the crew's supervisor.
Review Required Text	Freeform text indicating why the supervisor should review the order or what the supervisor should be looking for.

## Buttons

Button Name	Description
Send	This button is used to validate and save data entered on the CC&B Order Types screen. The completion data is sent to the Server for processing. The user is navigated back to the field order list. This button is only enabled in completion mode.
Common View	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the CC&B Order Types screen is saved. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Since the user is already on the primary detail screen, this button is disabled.
Order Header	This button opens the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. Before the Meter Information screen is displayed, any data entered on the CC&B Order Types screen is saved. This button is enabled if there is meter data associated with the order.
Usage History	This button is used to navigate to the Usage History Information screen. Before the Usage History Information screen is displayed, any data entered on the CC&B Order Types screen is saved. This button is enabled in all modes.

Button Name	Description
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list. In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user is prompted to confirm the cancel status.
Cost Information	This button is used to navigate to the Cost Information screen for supported order types.
Verify	This button is used to send a Meter Validation transaction to the Server application to validate the new/updated Meter information. The validation is only sent when this button is selected in the Mobile Workstation. The Dispatch Workstation application does not require the validation of Meter data. This button is only enabled in Completion mode if the order type is IT01, IT05, MT01, or MT05.
Dispatch	This button is always disabled. Orders cannot be dispatched from this screen.
Reassign	This button is always disabled. Orders cannot be reassigned from this screen.
Cancel Order	This button is always disabled. Orders cannot be cancelled from this screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the field order is updated with any data that has been entered on this screen.

When the Send button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, a message is displayed asking the user to confirm order completion. If the user selects Yes, the field order on the hard drive is updated; otherwise the screen is redisplayed. If the Pickup checkbox is checked, the Pickup Related Orders screen will be displayed. The completion data will not be sent until after the user indicates what type and how many orders are being picked up.

If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not a Complete status transaction will be sent. If the SEND\_COMPLETE flag for the specific order is 'Y', a Complete status transaction is generated and sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. The Server will update the status of the completion status and tracking status of the order, but not the completion time. When the completion data transaction is received for the order, the order will be updated with all the completion data.

If no additional work was performed, a completed order data transaction is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA

flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. If there is no entry in the transaction control table for a specific type, the application defaults to sending the transaction while 'Wireless'. If the order being completed is a pickup order, the transaction control record for the "original" order type will be checked. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router. The Router will convert the completed order data transaction into the proper transaction format and send the transaction to the appropriate external applications (e.g. Host System, etc.).

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When the Send button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

The Register list box in the Current Meter/Item section will be populated from the registers Read Type (Unit of Measure) Code and Read Use (Time of Use) Code sent from CC&B in the ReadingData with the order. The ReadingData will also contain the total number of dials and the number of decimals to the right of the decimal point.

The Register list box in the Installed Meter/Item section will be populated based on the selected Config Type. The Program ID (Meter Configuration Type) Code table will contain an entry for each register for that configuration type. Each entry will contain the Read Type (Unit of Measure) Code and Read Use (Time of Use) Code, which will be listed in the Register list box. Each entry will also contain the total number of dials and the number of decimals to the right of the decimal point.

The label for the Config Type list box will differ if the order type involves items. It will display "Item Type" instead of "Config Type".

The UseVerification INI parameter in the DHTMWINI is used to determine if the Verify button should be disabled. If the value is FALSE, disable the Verify button. If the parameter is TRUE AND the order type is IT01, IT05, MT01 or MT05, enable the Verify button. The Verify button will only be enabled on the Mobile Workstation; it is always disabled in the Dispatcher Workstation.

A high/low test is performed against the entered reading, if the upper/lower limits are not zero. If the upper and lower limits are zero, no high/low test is performed. If the reading fails the high/low test, the user can correct the reading or override the high/low test. The override flag is stored with the reading in the database. The following is the code snippet of the high/low test used in the Oracle Utilities Mobile Workforce Management product.

---

```
if ((upper > 0) || (lower > 0)) {
    if (upper < lower) {
        if ((reading >= lower) || (reading <= upper)) ||
OverrideFlag=='Y')
            fFailTest = FALSE;
        else
            fFailTest = TRUE;
    } else {
        if ((reading >= lower) && (reading <= upper)) || OverrideFlag=='Y')
            fFailTest = FALSE;
        else
            fFailTest = TRUE;
    }
}
if (fFailTest) {
CString strErrorMWg = "The index reading entered:" + reading;
strErrorMWg += " falls outside the range ";
```

---

```

        strErrorMWg += lower + "-" + upper;
        strErrorMWg += " Do you want to override this test?";
if (IDYES == AfxMessageBox(strErrorMWg, MB_YESNO))
    {
        //set flag for override
        OverrideFlag = "Y";
    } else {
        reading.SetFocus();
        return FALSE;
    }
}
return TRUE;

```

---

### Validation checks in Completion mode:

- Common Validation - required for all order types
  - Selection of Complete/Incomplete is required
  - If Incomplete selected, Incompletion Reason is required.
  - Freeform and/or standard remarks are required based on the CMPL\_REMARKS\_REQ flag in the DHTFOTYP table
  - If Supervisor Review Required is checked, supervisor review text must be entered.
- IT01 - Install Badged Item
  - All fields in the Service Point and Current Meter/Item sections will be disabled.
  - If the Service Point is disconnected, the Disconnect Location will be displayed in the Service Point section.
  - The Config Type, Register, and Reading fields in the Installed Meter/Item section will be disabled.
  - If the Verify button is enabled, the user must verify the item to be installed. When the button is pressed, the new Badge Number will be sent to the Server application in the XIcdMfValidateMeterReq ICD and the Mainframe Meter/Item Validation screen will be displayed. When the validation screen is dismissed, continue with the completion process. Since it is an item being validated, there is no additional logic needed.
  - Badge Number and Status in the Installed Meter/Item section are required to complete the order. The Status will be populated using the Meter Status Code table.
- IT02 - Turn on Badged Item
  - All fields on the screen, with the exception of the fields in the Completion Info section will be disabled.
  - The Badge Number of the item to be turned on will be displayed in the Current Meter/Item section.
- IT03 - Turn off Badged Item
  - All fields on the screen, with the exception of the fields in the Completion Info section will be disabled.
  - The Badge Number of the item to be turned off will be displayed in the Current Meter/Item section.
- IT04 - Remove Badged Item
  - All fields in the Installed Meter/Item sections will be disabled.

- Selection of Disconnect Location is required to complete the order. The Disconnect Location will be populated using the Service Point Disconnect Location Code table.
- The Register and Reading fields in the Current Meter/Item section will be disabled.
- The Badge Number of the item to be removed will be displayed in the Current Meter/Item section.
- Stock location will be enabled and may be entered, but it is not required.
- IT05 - Replace Badged Item
  - All fields in the Service Point section will be disabled.
  - The Register and Reading fields in the Current Meter/Item section will be disabled.
  - The Config Type, Register, and Reading fields in the Installed Meter/Item section will be disabled.
  - The Badge Number of the item to be removed will be displayed in the Current Meter/Item section.
  - Stock location will be enabled and may be entered, but it is not required.
  - If the Verify button is enabled, the user must verify the item to be installed. When the button is pressed, the new Badge Number will be sent to the Server application in the XIcdMFValidateMeterReq ICD and the Mainframe Meter/Item Validation screen will be displayed. When the validation screen is dismissed, continue with the completion process. Since it is an item being validated, there is no additional logic needed.
  - Badge Number and Status in the Installed Meter/Item section are required to complete the order.
- MR01 - Read Meter
  - All fields in the Service Point and Installed Meter/Item sections will be disabled.
  - The Badge Number and Configuration Type of the meter to be read will be displayed in the Current Meter/Item section.
  - Readings for each Register in the register list is required to complete this order.
  - If high/low limits have been specified for the register, a high/low test will be performed. If the entered reading is outside of the range, a message is displayed to the user. The user can choose to override the high/low test or re-enter the reading. If the user overrides the test, a “Y” is stored in the OVERRIDE\_READING field.
- MT01 - Install Meter
  - All fields in the Service Point and Current Meter/Item sections will be disabled.
  - If the Service Point is disconnected, the Disconnect Location will be displayed in the Service Point section.
  - If the Verify button is enabled, only the Badge Number in the Installed Meter/Item section will be enabled. The user must enter a Badge Number and press the Verify button. When the button is pressed, the new Badge Number will be sent to the Server application in the XIcdMFValidateMeterReq ICD and the Mainframe Meter/Item Validation screen will be displayed. When the validation screen is dismissed, return to the Detail Completion screen.
  - If the validation is successful, populate the Config Type with the value returned in the XIcdMFValidateMeterData ICD, but leave the field disabled.
  - If the validation failed, enable the Config Type list box and populate the list using the valid entries from the Meter Configuration Description (Program ID Description) table.

- Enable the Status in the in the Installed Meter/Item section. The Status will be populated using the Meter Status Code table.
- Badge Number, Status, and Config Type are required to complete the order.
- The Registers list box will be populated from the Meter Configuration Type (Program ID) table using the Meter Configuration Type returned in the Validation request or the one selected by the user.
- Readings for each Register in the register list in the Installed Meter/Item section is required to complete this order.
- No high/low test will be performed on the readings for the installed meter since no high/low limits exist.
- MT02 - Turn on Meter
  - All fields in the Service Point and Installed Meter/Item sections will be disabled.
  - The Badge Number and Configuration Type of the meter to be turned on will be displayed in the Current Meter/Item section.
  - Readings for each Register in the register list in the Current Meter/Item section is required to complete this order.
  - If high/low limits have been specified for the register, a high/low test will be performed. If the entered reading is outside of the range, a message is displayed to the user. The user can choose to override the high/low test or re-enter the reading. If the user overrides the test, a “Y” is stored in the OVERRIDE\_READING field.
- MT03 - Turn off Meter
  - All fields in the Service Point and Installed Meter/Item sections will be disabled.
  - The Badge Number and Configuration Type of the meter to be turned off will be displayed in the Current Meter/Item section.
  - Readings for each Register in the register list in the Current Meter/Item section is required to complete this order.
  - If high/low limits have been specified for the register, a high/low test will be performed. If the entered reading is outside of the range, a message is displayed to the user. The user can choose to override the high/low test or re-enter the reading. If the user overrides the test, a “Y” is stored in the OVERRIDE\_READING field.
- MT04 - Remove Meter
  - All fields in the Installed Meter/Item sections will be disabled.
  - Selection of Disconnect Location is required to complete the order. The Disconnect Location will be populated using the Service Point Disconnect Location Code table.
  - The Badge Number and Configuration Type of the meter to be removed will be displayed in the Current Meter/Item section.
  - Readings for each Register in the register list in the Current Meter/Item section is required to complete this order.
  - If high/low limits have been specified for the register, a high/low test will be performed. If the entered reading is outside of the range, a message is displayed to the user. The user can choose to override the high/low test or re-enter the reading. If the user overrides the test, a “Y” is stored in the OVERRIDE\_READING field.
  - Stock location will be enabled and may be entered, but it is not required.
- MT05 - Replace Meter
  - All fields in the Service Point section will be disabled.

- The Badge Number and Configuration Type of the meter to be removed will be displayed in the Current Meter/Item section.
- Readings for each Register in the register list in the Current Meter/Item section is required to complete this order.
- If high/low limits have been specified for the register, a high/low test will be performed. If the entered reading is outside of the range, a message is displayed to the user. The user can choose to override the high/low test or re-enter the reading. If the user overrides the test, a “Y” is stored in the OVERRIDE\_READING field.
- Stock location will be enabled and may be entered, but it is not required.
- If the Verify button is enabled, only the Badge Number in the Installed Meter/Item section will be enabled. The user must enter a Badge Number and press the Verify button. When the button is pressed, the new Badge Number will be sent to the Server application in the XIcdMfValidateMeterReq ICD and the Mainframe Meter/Item Validation screen will be displayed. When the validation screen is dismissed, return to the Detail Completion screen.
- If the validation is successful, populate the Config Type in the Installed section with the value returned in the XIcdMfValidateMeterData ICD, but leave the field disabled.
- If the validation failed, enable the Config Type list box in the Installed section and populate the list using the valid entries from the Meter Configuration Description (Program ID Description) table.
- Enable the Status in the in the Installed Meter/Item section. The Status will be populated using the Meter Status Code table.
- Badge Number, Status, and Config Type in the Installed Meter/Item section are required to complete the order.
- The Registers list box will be populated from the Meter Configuration Type (Program ID) table using the Meter Configuration Type returned in the Validation request or the one selected by the user.
- Readings for each Register in the register list in the Installed Meter/Item section is required to complete this order.
- No high/low test will be performed on the readings for the installed meter since no high/low limits exist.
- SP01 - Connect SP
  - All fields on the screen, with the exception of the fields in the Completion Info section will be disabled.
  - If the Service Point has been disconnected, the Disconnect Location will be displayed in the Service Point section.
- SP02 – Disconnect SP
  - All fields in the Current Meter/Item and Installed Meter/Item sections will be disabled.
  - Selection of Disconnect Location is required to complete the order. The Disconnect Location will be populated using the Service Point Disconnect Location Code table.

## Data Updates

The field order is updated when the user navigates to another screen. The database is not updated until the order is completed.

When the order is completed, the Server updates the field order database tables with the data from the completed order data transaction.

## Secondary Detail Screens

This section covers the following secondary detail screens:

- **AMR Secondary Completion Screen**
- **Common Information Modify Secondary Completion Screen**
- **Customer Charges Secondary Completion Screen**
- **Damage Assessment Secondary Completion Screen**
- **Electric Tags Secondary Completion Screen**
- **Equipment Secondary Completion Screen**
- **Event Update Secondary Completion Screen**
- **Failed Equipment Completion Screen**
- **Gas Checks Secondary Completion Screen**
- **Gas Emergency Secondary Completion Screen**
- **Gas Tags Secondary Completion Screen**
- **Meter Information Modify Secondary Completion Screen**
- **Partial Restoration Steps Secondary Completion Screen**
- **Parts Secondary Completion Screen**
- **Regulator Inspection Secondary Completion Screen**
- **Restoration Secondary Completion Screen**
- **Direct Charges Secondary Completion Screen**
- **Stock Charges Secondary Completion Screen**
- **Cost Information Screen**

## AMR Secondary Completion Screen

### Function/Process Description

The AMR screen is for displaying and updating AMR information associated with a meter. This is a secondary completion screen. This screen is displayed when the AMR button is selected. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, some fields are enabled for input based on the meter type.

When a new AMR is verified, the AMR Validation screen will be displayed. The progress bar will move across the screen while the user is waiting for validation response from the Oracle Utilities Mobile Workforce Management Server. The screen has a possibility of four messages. Only one message will be visible at any one time. When the screen is initially displayed, the first message 'Waiting for AMR number validation from Host System' is visible.

If a response is never received from the Host System, the last message 'AMR number validation not received from Host System. Press OK to return' is displayed. Pressing OK will return to the AMR screen.

If the AMR validation fails, the third message 'AMR number failed Host System validation. Press OK to return.' is displayed. Pressing OK will return to the AMR screen.

If the AMR validation is successful, the second message 'AMR number passed Host System validation. Press OK to continue.' is displayed. Pressing OK will return to the AMR screen.

### Data Fields

Field Name	Description
Select Meter	A list of meters on the order
Existing AMR	
AMR Number	The existing AMR number attached to the selected meter.
AMR Manufacturer	The existing AMR manufacturer attached to the selected meter. This field is decoded using the AMR manufacturer table (DHTAMRMC).
AMR model	The existing AMR model attached to the selected meter. This field is decoded using the AMR model table (DHTAMRMD).
Delete AMR	Checkbox used to indicate the existing AMT attached to the selected meter needs to be deleted.

Field Name	Description
AMR Change Reason	The reason the AMR is being changed. This list is populated using records of type 'A' from the reason table (DHTREASN).
New/Update AMR	
AMR Number	The new/updated AMR number attached to the selected meter.
AMR Manufacturer	The new/updated AMR manufacturer attached to the selected meter. This field is decoded using the AMR manufacturer table (DHTAMRMC).
AMR model	The new/updated AMR model attached to the selected meter. This field is decoded using the AMR model table (DHTAMRMD).

## Buttons

Button Name	Description
Ok	This button is used to validate and save data entered on the AMR screen. The completion data is saved so it can be sent to the Server with the completion data. The screen is closed. This button is only enabled in Completion mode.
Verify	This button is used to send an AMR Validation transaction to the Server application to validate the new/updated AMR information. The validation is only sent when this button is selected in the Mobile Workstation. The Dispatch Workstation application does not require the validation of AMR data. This button is only enabled in Completion mode.
Cancel	This button is used to close the screen. If the screen is being displayed in Completion mode, any changes entered on the screen will be canceled.

## Interfaces

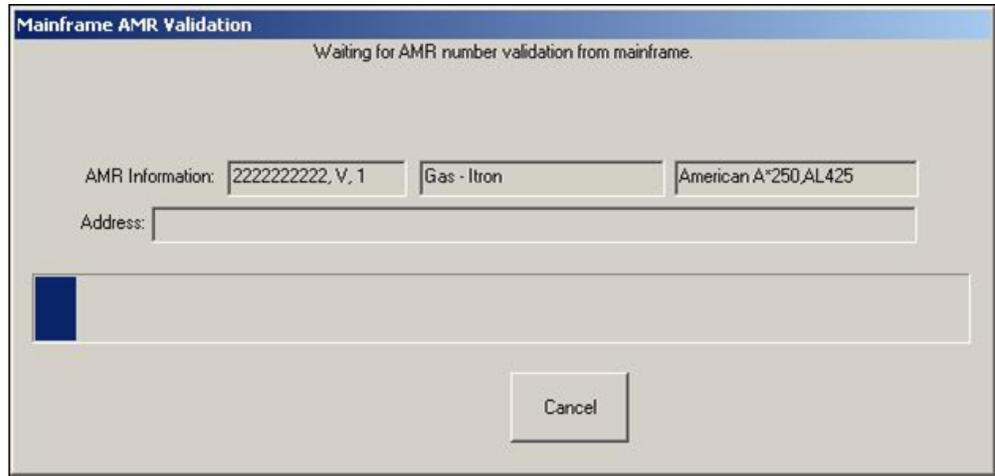
The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When the Ok button is selected, the completion data is validated locally.



The image shows a dialog box titled "Mainframe AMR Validation". At the top, it says "Waiting for AMR number validation from mainframe." Below this, there are three input fields for "AMR Information": "2222222222, V, 1", "Gas - Itron", and "American A\*250,AL425". There is also an "Address:" label followed by a text input field. A large blue progress bar is visible at the bottom left of the dialog. A "Cancel" button is located at the bottom center.

No validation is done for this order by any external application (e.g. Host System).

The new AMR fields are always disabled when an electric meter is selected in the meter list.

Validation checks in Completion mode:

- If the OK button is selected, you must verify an AMR or use the Cancel button.
- If the AMR is being added/updated, it must be verified. Verification is only valid in the Mobile version of the Station application.
- AMR Number, AMR Manufacturer, and AMR Model are required entries before the AMR data can be verified.
- If the Delete AMR checkbox is checked, you must select an item from the Change Reason list.

### Data Updates

The completion data is not sent until the order is completed from the primary detail completion screen.

## Common Information Modify Secondary Completion Screen

Address			
1300 SANDY LN			
1300 Sandy Dr			
CENTRAL POINT,OR			
East Point, OR			
Phone#s			
Service:	5038136417	(503)313-6417	Contact 5031112222 (503)555-1212
Pole/House/Zone			
Service Pole:	1234567	0987654321	Zone: Con/Rec - OR - 1 Meterman - OR - 11
House Desc:	Apartment		Single Family
Premise Information:			
Key:	12345	54321	
Key At:	1304 Sandy Ln	1304 SANDY DR	
Premise Entr:	Bad Dog	Dont Jump Gate/Fence	
Combine	<input checked="" type="checkbox"/>	Electric Meter	40936121E Gas Meter #: 30936121G
Ok		Cancel	

### Function/Process Description

The Common Information Modify screen is for updating information associated with a customer. This is a secondary completion screen. This screen is displayed when the Modify button on the Common Information screen is selected. This screen is only available in completion mode.

### Data Fields

Field Name	Description
Address	
Old Address 1	The current value of the customer's first line of address. This field is read-only.
New Address 1	The new value of the customer's first line of address.
Old Address 2	The current value of the customer's second line of address. This field is read-only.
New Address 2	The new value of the customer's second line of address.
Phone#s	
Old Service	The current value of the customer's service phone number. This field is read-only.
New Service	The new value of the customer's service phone number.
Old Contact	The current value of the customer's contact phone number. This field is read-only.
New Contact	The new value of the customer's contact phone number.

Field Name	Description
Pole/House/Zone	
Old Service Pole	The current value of the customer's location id number. This field is read-only.
New Service Pole	The new value of the customer's location id number.
Old Zone	The current value of the customer's zone (service area). This field is read-only.
New Zone	The new value of the customer's zone (service area). This list is populated using the service area table (DHTSERV).
Old House Desc	The current value of the customer's house description. This field is read-only.
New House Desc	The new value of the customer's house description. This list is populated using the premise description table (DHTPREMD).
Premise Information	
Old Key	The current value of the customer's first line of address. This field is read-only.
New Key	The new value of the customer's first line of address.
Old Key At	The current value of the customer's first line of address. This field is read-only.
New Key At	The new value of the customer's first line of address.
Old Premise Entr	The current value of the customer's first line of address. This field is read-only.
New Premise Entr	The new value of the customer's first line of address.
Combine	Checkbox used to indicate if a new electric or gas meter should be combined with an existing electric or gas meter.
Electric Meter	The number of the electric meter to be combined. This field is read-only if it pre-populated with value.
Gas Meter #	The number of the gas meter to be combined. This field is read-only if it pre-populated with value.

## Buttons

Button Name	Description
Ok	This button is used to validate and save data entered on the Change Information Modify screen. The completion data is saved so it can be sent to the Server with the completion data. The screen is closed. This button is only enabled in Completion mode.
Cancel	This button is used to cancel any changes entered on the screen and close the screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

The changed data is stored in the Completion Remarks field with beginning and ending tags.

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When the Ok button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

Validation checks in Completion mode:

- If Combine checkbox is checked, you must enter a gas or electric meter number; whichever is enabled.
- All other fields are optional.

## Data Updates

The completion data is not sent until the order is completed from the primary detail completion screen.

## Customer Charges Secondary Completion Screen

The screenshot displays the 'Customer Charge Screen' with the following sections:

- Travel Summary:** Travel Time: 15:13, Reason for Time override (dropdown).
- Labor Summary:** Labor Time: 13:11, Reason for Time override (dropdown).
- Billing:** Method: 15, Bill to: (dropdown),  Charge for Labor,  Charge for Parts,  Use Overtime Rate.
- Apply Charges:**  Waive Charges, Waive Reason: (dropdown),  Tech. Missed Appt.,  Customer Missed Appt.
- Charge Summary:** Labor Charge: 0.00, Material Charge: 32.90, Equipment Charge: 0.00, Subtotal: 32.90, Appointment Charge: (input), Tax: 0.00, Total: 32.90, ReCalculate button.
- Payments:** Payment Amount: 32.90, Balance: 0.00, Method of Payment (radio buttons for Cash, Check, Credit Card), Check No.: (input), Scan Card button, Type: (dropdown), Card No.: (input), Expiration: (Month/Year dropdowns), Verify Credit Card button, Auth #: (input), Print Receipt and Capture Signature buttons.

Navigation buttons at the bottom include: OK, Common View, Detail View, Order Header, Meter Information, Usage History, Crew Time, Cancel, Parts, and Customer Charge.

### Function/Process Description

The Customer Charges screen is for displaying and updating charge information associated with an order. This is a secondary completion screen. This screen is displayed after the Send button is selected or, for a completed order, via the Customer Charge button. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, some fields are enabled for input based on the meter type.

### Data Fields

Field Name	Description
Travel Summary	
Travel Time	The amount of time spent traveling to the customer's site in hours and minutes.
Reason for Time override	Reason the travel time was modified. If the original travel time is modified, a reason must be selected. This list is populated using the miscellaneous reason code table (DHTUIRSN) with a type of 'T-ALL'.
Labor Summary	
Labor Time	The amount of time working the order once the crew has arrived at the customer's site in hours and minutes.

Field Name	Description
Reason for Time override	Reason the labor time was modified. If the original travel time is modified, a reason must be selected. This list is populated using the miscellaneous reason code table (DHTUIRSN) with a type of 'L-ALL'.
Billing	
Method	This is the billing method used.
Bill to	Billing to (Customer/Landlord/See comments)
Charge for Labor	Charge for labor indicate
Charge for Parts	Charge for parts indicate
Use Overtime Rate	Overtime rate indicate
Apply Charges	
Waive Charges	Waive charge indicate
Waive Reason	Waive reason
Tech. Missed Appt.	Crew missed appointment indicate
Customer Missed Appt.	Customer missed appointment indicate
Charge Summary	
Labor Charge	Labor to be charged
Material Charge	Material to be charged
Equipment Charge	Equipment to be charged
Subtotal	Subtotal to be charged
Appointment Charge	Appointment to be charged
Tax	Tax for the job
Total	Total to be charged
Payments	
Payment Amount	Amount that was paid to the tech/crew
Balance	Balance will be shown on the account
Method of Payment	
Cash	Cash was made to the tech/crew (indicator)
Check	Check was made to the tech/crew (indicator)
Check No	Check number which was made
Credit Card	Credit Card was checked
Type	Type of card
Card No.	Card number

Field Name	Description
Expiration Month/ Year	Card expiration date
Auth. #	Authorization code (3)

## Buttons

### Customer Charges Secondary Completion Screen Buttons

Button Name	Description
ReCalculate	Recalculates the charges section.
Scan Card	Used to scan a credit card. Needs implementation with a credit card verification service.
Print Receipt	Used to print a receipt. Needs implementation with a valid printer.
Capture Signature	Used to capture a customer's signature. Needs implementation with a signature recognition device.

### Customer Charges Secondary Completion Navigation Buttons

Button Name	Description
OK	This button is used to save the Customer Charges data and send it to the Server. A confirmation message is displayed before the data is sent. If the user confirms that they are done with the Customer Charges, the completion data is sent to the Server; otherwise the Customer Charges screen is re-displayed.
Common View	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the Customer Charges screen is saved. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type. Before the appropriate primary detail screen is displayed, any data entered on the Customer Charges screen is saved. This button is enabled in all modes.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. Before the Meter Information screen is displayed, any data entered on the Customer Charges screen is saved. This button is enabled if there is meter data associated with the order.
Usage History	This button is used to navigate to the Usage History Information screen. Before the Usage History Information screen is displayed, any data entered on the Customer Charges screen is saved. This button is enabled in all modes if the order has usage history.

Button Name	Description
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always disabled.
Parts	This button is used to navigate to the Parts screen. Before the Parts screen is displayed, any data entered on the Customer Charges screen is saved. This button is enabled in all modes.
Cancel	This button is used to cancel any changes entered on the screen and return appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type.
Customer Charge	This button is used to navigate to the Customer Charges screen. Since the user is already on the Customer Charges screen, this button is always disabled.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

If this screen is **being** displayed in browse mode, all data is read-only and cannot be modified.

When the Ok button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

- Validation checks in Completion mode:
- Click on the OK button, a confirmation dialog will be populated (Are you done with the customer charges screen?), then by selecting Yes, the order will be complete.

All other fields are optional.

## Data Updates

The completion data is not sent until the order is completed from the primary detail completion screen.

## Damage Assessment Secondary Completion Screen

### Function/Process Description

The Damage Assessment screen is for displaying and updating damage assessment information associated with a electric trouble order. This is a secondary completion screen. This screen is displayed when the Damage Assessment button is selected. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, some fields are enabled for input based on the meter type.

### Data Fields

Field Name	Description
Damage Location:	
Crew ID	The Crew ID.
Mobile #	The crew's cell phone number.
Report Date	The report date of the damage assessment.
Report Time	The report time of the damage assessment.
Feeder	Indicates the feeder number.
Device	Indicates the interrupt device number.
Event #	Indicates the event number.
Map Page\Grid	The Map Page and Grid Location
Location	The customer's address.

Field Name	Description
City	The customer's city.
Company	The customer's company.
Region	The customer's region.
Branch	The customer's branch.
Substation	The customer's substation.
Damage Specifics:	
Est. Crew Repair	Indicates the estimated time for the crew to repair.
Affected Section	Indicates the Affected sections
Phase Affected	Indicates the Phase.
Location	Indicates the location of the affected area.
Load Affected	Indicates whether the Load was affected.
Type of Crew Needed	Indicates the type of crew needed.
Damage Type	Indicates the Damage type. Damage type is selected from the list. Between 1 and 6 damage types must be selected.
Count	Indicates the count of the Damage Type.
Accessible?	Indicates the accessible of the Damage Type.
Tree Crew Required	Indicates the tree crew required
Street Light Damage Noted	Indicates the street light damage noted
Comments	Freeform Comments associated with the damage.
Required Material	
Part ID	Indicates the Part ID of the part.
Part Name	Indicates the Part Name of the part.
Qty	Indicates the quantity amount.
Comments	Freeform comments associated with the damage assessment

## Buttons

Button Name	Description
Damage Type Buttons	
Add	This button is used to add a damage type entry. The user would enter data into the damage type fields and press this button. The data in the damage type fields will be validated and if valid, the entry will be added to the damage type list.

Button Name	Description
Modify	This button is used to modify a damage type entry. When a row is be selected in the damage type list before, the damage type detail fields will be populated with the data from the selected entry. The user would modify the data in the damage type fields and press this button. The data in the damage type fields will be validated and if valid, the selected entry in the damage type list will be updated.
Delete	This button is used to delete a damage type entry. When a row is be selected in the damage type list before, the damage type detail fields will be populated with the data from the selected entry. The user would press this button and the selected entry will be removed from the damage type list.
Parts Buttons	
Add	This button is used to add a required part entry. The user would enter data into the parts detail fields and press this button. The data in the parts fields will be validated and if valid, the entry will be added to the parts list.
Modify	This button is used to modify a required part entry. When a row is be selected in the parts list before, the parts detail fields will be populated with the data from the selected entry. The user would modify the data in the parts fields and press this button. The data in the parts fields will be validated and if valid, the selected entry in the parts list will be updated.
Delete	This button is used to delete a required part entry. When a row is be selected in the parts list before, the parts detail fields will be populated with the data from the selected entry. The user would press this button and the selected entry will be removed from the parts list.
General Buttons	
Send	This button is used to validate and save data entered on the Primary completion screen. The completion data is sent to the Server for processing. The user is navigated back to the field order list. This button is only enabled in completion mode.
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list. In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user will be prompted to confirm the cancel status.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When the user navigates from this screen, the completion data is validated when the send button is hit.

### Validation checks in Completion mode for Damage Assessment secondary completion screen:

- Damage Type List in the Damage Specifics Section
  - A row must be selected in the list for the Modify or Delete button to function. Whenever a row is selected in the Damage Type list, the damage type detail fields will be populated with the data from the selected entry.
  - When the Add button is selected, the detail fields are validated (see detail validation below) and, if valid, a row will be added to the Damage Type list using the entered data.
  - When the Modify button is selected, the detail fields are validated (see detail validation below) and, if valid, the selected row in the Damage Type list will be updated using the entered data.
  - When the Delete button is selected, the selected row in the Damage Type list will be removed.
  - Detail field Validation:
    - Damage Type is a required selection.
    - If Count is not entered, it defaults to zero.
  - Required Parts List in the Required Material Section
    - A row must be selected in the list for the Modify or Delete button to function. Whenever a row is selected in the Parts list, the parts detail fields will be populated with the data from the selected entry.
    - When the Add button is selected, the detail fields are validated (see detail validation below) and, if valid, a row will be added to the Parts list using the entered data.
    - When the Modify button is selected, the detail fields are validated (see detail validation below) and, if valid, the selected row in the Parts list will be updated using the entered data.
    - When the Delete button is selected, the selected row in the Parts list will be removed.
    - Detail field Validation:
      - Part Id, Part Name, and Quantity are required.
- Remaining screen validation.
  - Required Fields:
    - Crew ID (default with the logged on crew)
    - Report Date/Time

## Data Updates

The completion data is not sent until the order is completed from the primary detail completion screen.

## Electric Tags Secondary Completion Screen

### Function/Process Description

The Electric Tags screen is for displaying and updating electric tag information associated with an order. This is a secondary completion screen. This screen is displayed when the Electric Warn Tag button is selected. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, some fields are enabled for input based on the meter type.

### Data Fields

Field Name	Description
Name	The customer's name
Order Type	The type of order
Service	The customer's service number.
Addr	The customer's address
Contact	The customer's contact number.
City	The customer's city
Tag #	Indicates the Tag number. Maximum of 5 tags.
Tags Completed	Number of tags completed
Meter Number	The number of the customers' meter on this order
Service Failure Cause	
Short In	Indicates that the Service Failure was cause by a Short
Defective	Indicates that the Service Failure was cause by a Defect.
Overloaded Branch Circuit	Indicates that the Service Failure was cause by an Overloaded Branch Circuit.

Field Name	Description
General Overload	Indicates that the Service Failure was cause by a General overload.
Over-fused Branch Circuits	Indicates that the Service Failure was cause by over-fused branch circuits.
Other	Indicates that the Service Failure was cause by other reasons.
Recommended Customer to Call	
Electrical Contractor	Indicates that an electrical contractor was recommended to the customer to call for assistance.
Appliance Repairman	Indicates that an appliance repairman was recommended to the customer to call for assistance
Remarks	Freeform remarks associated with the tag.

## Buttons

Button Name	Description
Ok	This button is used to save the Tag data and return to the previous screen.
Clear Tag	This button is used to clear the tag information entered.
Cancel	This button is used to cancel any changes entered on the screen and return back to the previous screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

### Validation checks in Completion mode:

- Validation checks for Electric Warning Tag Screen
- There are a maximum of 5 tags.
- Service Failure Cause is required
- If Short In is chosen as the Service Failure Cause, then a reason is required.
- If Defective is chosen as the Service Failure Cause, then a reason is required.
- If Other is chosen as the Service Failure Cause, then a reason is required.
- Recommended Customer to call is required.

## Data Updates

The completion data is not sent until the order is completed from the primary detail completion screen.

## Equipment Secondary Completion Screen

The screenshot shows a software window titled "Equipment Screen" with three main sections:

- Instrument Transformer Information:** Contains a table with columns "Set/Rmv", "Equipment Type", "Serial Number", "Ratio", and "#Turns". One row is visible with values: "CT", "1053558", "0040/1", and "2". To the right of the table are input fields for "Equipment Type", "Serial Number", "Ratio", "#Turns", and "Removal Reason". Below the table, it shows "Total Active Transformers: 1" and "Number of Transformers Set: 0". There are "Set", "Remove", and "Confirm" buttons.
- Pulse Initiator Information:** Contains input fields for "PI Form", "PI Type", "Ke", and "PKe".
- Remote Communication Information:** Contains input fields for "Comm Method", "Comm#", "Modem Type", and "Mtr Addr". There are also checkboxes for "Cur Loop", "Spike Eliminator", and "Shared Modem".

At the bottom of the screen, there is a row of buttons: "Send", "Common View", "Detail View", "Order Header", "Meter Information", "Usage History", "Crew Time", and "Cancel". Below this row are more buttons: "Equipment", "Dispatch", "Reassign", and "Cancel Order".

### Function/Process Description

The Equipment screen is for displaying and updating equipment associated with the service. This is a secondary completion screen. This screen is displayed when the Equipment button is selected. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, some fields are enabled for input based on the meter type.

The screen has three sections: Instrument Transformer Information, Pulse Initiator Information, and Remote Communication Information.

The Instrument Transformer Information section has three buttons that will be used to set/remove instrument transformers. The Set button is used to add new equipment. The new information is entered into the fields to the right of the list and the Confirm button is selected to validate and add the data. The Remove button is used to delete equipment. Highlight the desired equipment in the list and press the Remove button. The equipment data is displayed in the fields to the right of the list. Enter a removal reason and press the Confirm button to delete the data.

The Pulse Initiator Information section is for adding/modifying/deleting a pulse initiator associated with a meter. Existing pulse initiator information is displayed in the fields. The data can be modified or cleared. The data will be validated and saved when the user navigates from the screen.

The Remote Communication Information section is for adding/modifying/deleting a remote communication device associated with a meter. Existing remote communication information is displayed in the fields. The data can be modified or cleared. The data will be validated and saved when the user navigates from the screen.

## Data Fields

Field Name	Description
Instrument Transformer Information	List of instrument transformer equipment associated with the service. This list can contain a maximum of 18 entries (12 removes and 6 sets).
Equipment Type	The type of instrument transformer equipment. This list is populated using the miscellaneous validation table (DHTMISC) where the code is 'EQUIP_TYPE##'.
Serial Number	The serial number associated with the instrument transformer equipment.
Ratio	The numerator of the ratio associated with the instrument transformer equipment.
#Turns	The number of turns associated with the instrument transformer equipment. This field is only valid for 'CT' equipment type.
Removal Reason	This field is used to indicate the reason the instrument transformer equipment was removed. This list is populated using the removal reason validation table (DHTRMRSN). The field will be enabled for the first instrument removed. After that, the field will be disabled. All instruments that are removed will have the same removal reason.
Pulse Initiator Information	The pulse initiator equipment associated with the service.
PI Form	The form associated with the pulse initiator equipment. This list is populated using the miscellaneous validation table (DHTMISC) where the code is 'PI_FORM##'.
PI Type	The type of pulse initiator equipment.
Ke	The pulse constant for the KYZ output of a solid-state meter.
PKe	The primary output pulse associated with the pulse initiator equipment.
Remote Communication Information	The remote communication equipment associated with the service.
Comm Method	The method associated with the remote communication equipment. This list is populated using the miscellaneous validation table (DHTMISC) where the code is 'COMM_METHOD##'.
Comm#	The number associated with the remote communication equipment.
Modem Type	The modem type associated with the remote communication equipment. This list is populated using the miscellaneous validation table (DHTMISC) where the code is 'MODEM_TYPE##'.
Cur Loop	Indicates there is a current loop associated with the remote communication equipment.
Spike Eliminator	Indicates there is a spike eliminator associated with the remote communication equipment.

Field Name	Description
Shared Modem	Indicates that this remote communication equipment shares a modem with another piece of equipment.
Meter Addr	A unique identification for the node or port assigned to electronic meters that are connected via remote communications.

## Buttons

### Equipment Secondary Completion Screen Buttons

Button Name	Description
Set	This button is used to add instrument transformer equipment. Pressing this button will enable the required equipment detail fields for input.
Remove	This button is used to delete instrument transformer equipment. An entry must be selected in the equipment list before this button is enabled. Pressing this button will enable the required equipment detail fields for input.
Confirm	This button is used to validate and save the data entered in the equipment detail fields.

### Equipment Secondary Completion Navigation Buttons

Button Name	Description
Send	This button is used to save the completion data and send it to the Server. Since the orders must be completed from the primary detail screen, this button is always disabled. Use the detail view button to navigate back to the appropriate Primary Detail screen based on the order type
Common View	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the Equipment screen is validated and saved. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type. Before the appropriate primary detail screen is displayed, any data entered on the Equipment screen is validated and saved. This button is always enabled in browse mode. If completion mode, the button is always enabled unless the detail screen is the Meter Set/Change/Remove screen and an action taken has NOT been selected.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. Before the Meter Information screen is displayed, any data entered on the Equipment screen is validated and saved. This button is enabled if there is meter data associated with the order.

Button Name	Description
Usage History	This button is used to navigate to the Usage History Information screen. Before the Usage History Information screen is displayed, any data entered on the Meter Set/Change/Remove screen is saved. This button is enabled in all modes if the order has usage history.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always disabled.
Equipment	This button is used to navigate to the Equipment screen. Since the user is already on the Equipment screen, this button is disabled.
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list.
Dispatch	This button is always disabled. Orders cannot be dispatched from this screen.
Reassign	This button is always disabled. Orders cannot be reassigned from this screen.
Cancel Order	This button is always disabled. Orders cannot be cancelled from this screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified. If this screen is accessed while working an order type of MSW, MTX, RMW, or TMP AND an action taken has been selected on the Meter Set/Change/Remove screen, the screen fields will be enabled for input based on the action taken selected on the Meter Set/Change/Remove screen and the Bill Multiplier associated with the meter; otherwise all data on the screen is read-only and cannot be modified. If the selected action taken on the primary detail screen was Set, Change, or Other AND the Bill Multiplier is greater than 1, the instrument transformer screen fields are enabled for input; the process buttons (e.g. Set, Remove, and Confirm) are also enabled. If the selected action taken on the primary detail screen was Remove AND the Bill Multiplier is greater than 1, the Set process button is disabled; instrument transformers can only be removed. If the Bill Multiplier is 1, the instrument transformer fields and process buttons are always disabled.

The Pulse Initiator and Remote Communication fields are disabled if the selected action taken was Remove; otherwise the Pulse Initiator and Remote Communication fields are always enabled. This equipment is automatically removed if the meter is removed.

When the user navigates from this screen, the completion data is validated. The completion data is validated locally. There is no validation done for this order by any external application (e.g. Host System, etc.).

To add instrument transformer equipment to the service, press the Set button in the Instrument Transformer Information section. When the Set button is selected, all the equipment detail fields, except for Removal Reason, are cleared and enabled. The user must enter the required data and press the Confirm button to validate and save the entered data. If the data is correct, the entry will be added to the instrument transformer list with a Set/Rmv code of 'S'.

To delete instrument transformer equipment from the service, highlight the desired equipment in the list and press the Remove button in the Instrument Transformer Information section. When the Remove button is selected in the Instrument Transformer Information section, all the equipment detail fields, except for Removal Reason, are disabled. The data for the selected equipment entry is loaded into the equipment detail fields. The user must select a Removal Reason and press the Confirm button to validate and save the entered data. If the data is correct, the selected entry will be updated with a Set/Rmv code of 'R'.

To add pulse initiator equipment, enter the required pulse initiator fields. To delete pulse initiator equipment, all the pulse initiator fields must be cleared. To change pulse initiator equipment, modify the desired pulse initiator fields.

To add remote communication equipment, enter the required remote communication fields. To delete remote communication equipment, all the remote communication fields must be cleared. To change remote communication equipment, modify the desired remote communication fields.

### **Validation checks in Completion mode:**

- Validation checks for Instrument Transformer Information
  - A maximum of 18 entries can appear in the list box. There are some accounts that currently have 12 instrument transformers installed. All the existing entries can be removed. A maximum of 6 instrument transformers can be set.
  - The user can set instrument transformers as long as the total of active instrument transformers (existing equipment plus the equipment being set) does not exceed 6. If needed, equipment will have to be removed before new instrument transformers can be set.
  - If the selected action taken on the primary detail screen is Set and the Bill Multiplier greater than 1, the user must set at least one instrument transformer.
  - If an instrument transformer is being set, the equipment type, serial number, and ratio are required. If the equipment type is 'CT', the #Turns are also required. There is no other validation.
  - If an instrument transformer is being removed, a Removal Reason is required. There is no other validation.
- Validation checks for Pulse Initiator Information
  - If any of the pulse initiator fields are entered they must all be entered. There is no other validation.
- Validation checks for Remote Communication Information
  - If either Comm Method, Comm#, or Modem Type is entered, all three fields must be entered. There is no other validation.
  - The remaining Remote Communication Information fields are optional.

### **Data Updates**

The completion data is not sent until the order is completed from the primary detail completion screen.

## Event Update Secondary Completion Screen

OMS Event Update Screen

Estimated Restoration Time Entry Screen

### Function/Process Description

The Event Update screen is for displaying and updating restoration data information associated with an order. This is a secondary completion screen. This screen is displayed when the Event Update button is selected. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode and all fields are enabled for.

## Data Fields

### OMS Event Update Screen

Field Name	Description
Est. Restore (Date time)	The estimated restoration date time.
Restored Date	The restored date.
Restored Time	The restored time.
Est. Time to Repair	The estimated time to repair.
Operations Event Note	The operations event note/comments.
System	The system of the restoration data.
Sub-System	The type of the sub-system.
Type	The type of the restoration data.
Failure	The failure of the restoration data.
Interruption Device	The interruption device of the restoration data.
Weather	The weather of the restoration data.
Environment	The environment of the restoration data.
Vegetation	The vegetation of the restoration data.
Foreign Interference	The foreign interference of the restoration data.
Defective Equipment	The defective equipment of the restoration data.
Scheduled	The scheduled of the restoration data.
Utility Error	The utility error of the restoration data.
Other	The other restoration data.
Remedy	The remedy of the restoration data.
Exclude from Interruption Indicate	Indicates of the exclude from interruption.
Reason for Exclusion	The reason for exclusion.

## Buttons

### OMS Event Update Buttons

Button Name	Description
Update ERT	This button is used to popup the Estimated Restoration Time Entry screen. This button is enabled in Complete mode.
Confirm Device	This button will confirm the device specified in the outage.
Up	This button will re-predict the outage device upstream.

Button Name	Description
Down	This button will re-predict the outage device downstream.
Send	This button is used to save the completion data and send it to the Server. Since the orders must be completed from the primary detail screen, this button is always disabled. Use the detail view button to navigate back to the appropriate Primary Detail screen based on the order type
Common View	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the Equipment screen is validated and saved. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type. Before the appropriate primary detail screen is displayed, any data entered on the Equipment screen is validated and saved. This button is always enabled in browse mode. If completion mode, the button is always enabled unless the detail screen is the Meter Set/Change/Remove screen and an action taken has NOT been selected.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Damage Assessment	This Button will navigate to the Damage Assessment screen. This button is enabled in all modes.
OMS Event Update	This button is disabled since the Event Update screen is currently displayed.
Failed Equipment	This Button will navigate to the Failed Equipment dialog. This button is enabled in all modes.
Partial Restoration	This button will navigate to the Partial Restoration screen.
Transmit Now	This button will immediately send the Event Update & Failed Equipment data.
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list. In the Mobile Workstation, if the status of the order is Enroute or Onsite and this screen is the initial field order screen, this button will cancel the status of the order. The user will be prompted to confirm the cancel status.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

When the Transmit Now button is selected or the Send button is selected on the Electric Trouble screen, the completion data is validated locally. No validation is done for this order by any external application (e.g. OMS).

If Exclude from Interruption Indicate check box is checked, the user must enter a Reason Exclusion.

If Refute Device check box is checked, the user must select a Re-predict Direction radio button. The re-predict direction should be stored as "Up" or "Down".

By completing the order the following fields are required; all other fields are optional entries.

- Restored Date
- Restored Time
- Remedy

## Data Updates

The completion data is not sent until the order is completed from the primary detail completion screen.

## Failed Equipment Completion Screen

### Function/Process Description

The Failed Equipment screen is for displaying and updating failed equipment information associated with an order. This is a secondary completion screen. This screen is displayed when the Failed Equipment button is selected. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode and all fields are enabled for input.

### Data Fields

Field Name	Description
Item	The failed equipment item. This will display the Failure type from the Event Update screen or "Unselected" if no Failure was selected.
Manufacturer	The manufacturer of the equipment.
Serial #	The serial number of the equipment.
Primary Voltage	The primary voltage of the equipment.
Secondary Voltage	The secondary voltage of the equipment.
Rating	The rating of the equipment.
Units	The number units of the equipment.
Phase (Single)	Indicates of the single phase.
Phase (Three)	Indicates of the three phase.
Type	The type of the equipment.
Size	The size of the equipment.

### Buttons

Button Name	Description
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OK	This button will validate the data entered and, if valid, save the data to the field order file. The dialog will be closed.
Cancel	This button will cancel any updates made and close the dialog.

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### **Interfaces**

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

### **Validation**

At least one field must be entered to add a field equipment entry.

## Gas Checks Secondary Completion Screen

### Function/Process Description

The Gas Checks screen is for displaying and updating gas check information associated with an order. This is a secondary completion screen. This screen is displayed when the Gas Checks button is selected. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, some fields are enabled for input based on the meter type.

### Data Fields

Field Name	Description
Name	The customer's name.
Order Type	The type of order.
Service	The customer's service phone number.
Addr	The customer's service address.
Contact	The customer's contact phone number.
City	The customer's city
Life Support	Life support information pertaining to the customer
Wall Check / Bar Hole Information	
Wall Check	
CGI	Indicates the tech could not get in to do a wall check reading.
% Gas	% Gas for the wall check for the selected reading.
% LEL	% LEL for the wall check for the selected reading.
Bar Hole	
URD Area	Indicates the Bar Hole is a URD area,

Field Name	Description
% Gas	% Gas for the bar hole for the selected reading.
% LEL	% LEL for the bar hole for the selected reading.
Time	Time the reading was taken in the format HH:MM.
CO Check Info	
Ambient Air PPM	The carbon monoxide reading in parts per million of the ambient air.
Water Heater Flue PPM	The carbon monoxide reading in parts per million of the at the water heater flue.
Space Heater Flue PPM	The carbon monoxide reading in parts per million of the at the space heater flue.
Furnace Flue PPM	The carbon monoxide reading in parts per million at the furnace flue.
Other Flue PPM	The carbon monoxide reading in parts per million at a flue, other than the ones listed above.
Flue Spill Check	
Water Heater	Indicates Flue Spill check was performed on the water heater.
Space Heater	Indicates Flue Spill check was performed on the space heater.
Furnace	Indicates Flue Spill check was performed on the furnace.
Other	Indicates Flue Spill check was performed on another appliance.
Other Text	Identifies the appliance on which the flu spill check was performed.
NA	Indicates a Flue Spill check was performed on No Appliances.

## Buttons

### Gas Check Secondary Completion Screen Buttons

Button Name	Description
Add Reading	This button is used to validate and save the entered reading data. The fields are then cleared so a new reading can be entered.
<	This button is used to skip to the first entered reading.
<<	This button is used to display the data for the previous entered reading.
>>	This button is used to display the data for the next entered reading.
>	This button is used to skip to the last empty reading, so a new reading can be entered.

## Gas Check Secondary Completion Navigation Buttons

Button Name	Description
OK	This button is used to save the completion data and return to the primary detail screen. Since the orders must be completed from the primary detail screen, the data is not sent to the server until the order is completed from the primary detail screen.
Monitor	This button is used to navigate to the Monitor Information screen. This button is enabled if one or more readings have been entered for this order.
Cancel	This button is used to cancel any changes entered on the screen and return to the primary detail screen.

### Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

### Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified. The *arrow* buttons function, so the user can cycle through the readings.

When the Ok button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

Validation checks in Completion mode:

- At least one of the Wall Check / Bar Hole information fields and Time must be entered to add a reading.
- If entered, the % Gas and % LEL values must be between 0 and 100.
- If Flue Spill Check checkbox is checked, the other text field must be entered.
- If the Gas Check screen is displayed because of an inactive gas meter, the user must check one of the Flue Spill Check checkboxes to successfully save the data on the screen.

### Data Updates

The completion data is not sent until the order is completed from the primary detail completion screen.

## Gas Emergency Secondary Completion Screen

### Function/Process Description

The Gas Emergency secondary completion screen is for displaying and updating additional information associated with the gas emergency. This is a secondary completion screen. This screen is displayed when the Page 2 button on the Gas Emergency Primary Detail screen is selected. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, some fields are enabled for input based on the meter type.

### Data Fields

Field Name	Description
Name	The customer's name.
Order Type	The order type description. The field is populated using the order type validation table (DHTFOTYP) based on the order type code.
Service	The customer's service phone number.
Addr	The customer's service address.
Contact	The customer's contact phone number.
City	The customer's service city
Leak Log #	Gas leak log number
Leak Information	
Class 1 / Class 2	An indicator to identify the leak class of the order. There are two kinds of categories for gas leaks. Either one of them must be checked.
CO Inside	Indicates the flue spill order has a CO inside leak. <b>Note:</b> "CO Inside", "Outside Gas" and "Inside Gas" indicate where the gas leaks. "CO" means carbon monoxide.

<b>Field Name</b>	<b>Description</b>
Inside Gas	Indicates the flue spill order has an inside gas leak. If this is checked, then there must be a Wall Gas or Wall LEL value for EACH Gas Check and Flue Spill Info.
Outside Gas	Indicates the flue spill order has an outside gas leak. If this is checked OR if Leak Class 2 AND Inside are both checked, then Bar Hole Gas or Bar Hole LEL are required.
Gas Shut Off	These are the checks required if CO was found inside, no matter what class is selected. Ambient Air and Flue Spill info are required.
Yes / No	Indicates whether or not the gas was shut off.
Location	The shut off location.
Meter #	Meter number of the shut off meter.
House Information	Indicates whether or not the house was cleared of a gas leak and whether or not additional houses in the area should be checked.
Clear	Indicates the house is clear when the order is complete.
Not Clear	Indicates the house is not clear when the order is complete.
House Check Required	Additional houses should be checked for possible gas leak.
Gas Repair	
GRO#	The gas repair order number.
Leak Type	The type of leak of the gas repair. Gas leak types include "gas odor", "gas explosion"...
Make Safe Date	Date when gas leak is made safe.
Make Safe Time	Time when gas leak is made safe.
Wall Check / Bar Hole Information	
Wall Check	
CGI	Indicates whether or not the tech could get in to do a wall check reading.
% Gas	% Gas for the wall check for the selected reading.
% LEL	% LEL for the wall check for the selected reading.
Bar Hole	
URD Area	Indicates the Bar Hole is a URD area.
% Gas	% Gas for the bar hole for the selected reading.
% LEL	% LEL for the bar hole for the selected reading.
Time	Time the reading was taken in the format HH:MM.
CO Check Info	
Ambient Air PPM	The carbon monoxide reading in parts per million of the ambient air.

Field Name	Description
Water Heater Flue PPM	The carbon monoxide reading in parts per million at the water heater flue.
Space Heater Flue PPM	The carbon monoxide reading in parts per million at the space heater flue.
Furnace Flue PPM	The carbon monoxide reading in parts per million at the furnace flue.
Other Flue PPM	The carbon monoxide reading in parts per million at a flue, other than the ones listed above.
Flue Spill Check	
Water Heater	Indicates the water heat is checked for the flue spill.
Space Heater	Indicates the space heat is checked for the flue spill.
Furnace	Indicates the furnace is checked for the flue spill.
Other	Indicates the other type is checked for the flue spill.
(Other Desc.)	The other type description.
N/A	Indicates there is no check for the flue spill.

## Buttons

Button Name	Description
Prev Page	This button is used to save the completion data and return to the primary detail screen. Since the orders must be completed from the primary detail screen, the data is not sent to the server until the order is completed from the primary detail screen.
Gas Warn Tag	This button displays the Gas Warning Tag screen.
Electric Warn Tag	This button displays the Electric Warning Tag screen.
Monitor	This button is used to navigate to the Monitor Information screen. This button is enabled if one or more readings have been entered for this order.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified. The *arrow* buttons function, so the user can cycle through the readings.

When the Prev Page button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

Validation checks in Completion mode:

At least one of the Wall Check / Bar Hole information fields and Time must be entered to add a reading.

If entered, the % Gas and % LEL values must be between 0 and 100.

### **Data Updates**

The completion data is not sent until the order is completed from the primary detail completion screen.

## Gas Tags Secondary Completion Screen

### Function/Process Description

The Gas Tags screen is for displaying and updating gas tag information associated with an order. This is a secondary completion screen. This screen is displayed when the Gas Warn Tag button is selected. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, some fields are enabled for input based on the meter type.

### Data Fields

Field Name	Description
Name	The customer's name.
Order Type	The type of order.
Service	The customer's service phone number.
Addr	The customer's service address.
Contact	The customer's contact phone number.
City	The customer's service city
Tag #	Tag identifying number
Tags Completed	Read-only count of completed tags.
Meter Number	Meter number if applicable.
Class	
A, B, C	Select one of the three choices.
Action Taken	

Field Name	Description
Appl / Piping Isolated	Appliance and / or piping isolated from gas supply.
Appl Shut Off	Appliance shut off.
Meter Locked Off	Meter left in locked off position.
Appl Left On / Temp Repair	Temporary repair with appliance left on.
Appliance Tagged	
Furnace	
Water Heater	
Range	
Other	Enter other appliance type.
Unsafe Conditions	
No Flue	
Unvented Appliance	
Plugged or Defective Vent	
Leak at Appliance	
Defective Auto Pilot	
No Draft Diverter	
Flue Pipe Rusted Out	
Leak – House Piping	
No Safety Pilot	
Excessive CO	The carbon monoxide reading in parts per million (PPM).
Other	Enter other unsafe condition.
Remarks	User entered remarks.
Signature Obtained	
Yes	Select either Yes or No.
No	
Recheck Date	

### Buttons

Button Name	Description
OK	This button retains changes, returns to previous screen.

Clear Tag	This button clears all user editable fields.
Cancel	This button discards changes to editable information, returns to previous screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified. The *arrow* buttons function, so the user can cycle through the readings.

When the OK button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

Validation checks in Completion mode:

- A Tag Number must be selected.
- A Class level must be selected.
- An Action Taken item must be selected.
- At least one Appliance type must be selected.
- If the Appliance type is Other, then the type must be entered.
- At least one Unsafe Condition must be selected.
- If the Unsafe Condition is Other, then the condition must be entered.
- Signature Obtained must be either Yes or No.

## Data Updates

The completion data is not sent until the order is completed from the primary detail completion screen.

## Meter Information Modify Secondary Completion Screen

### Function/Process Description

The Meter Information Modify screen is for updating information associated with a meter. This is a secondary completion screen. This screen is displayed when the Modify button on the Meter Information screen is selected. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, some fields are enabled for input based on the meter type.

### Data Fields

Field Name	Description
Name	The customer name from the original order.
Service	The customer's service (evening) phone from the original order.
Addr	The customer's service address from the original order.
Contact	The customer's contact (day) phone from the original order.
City	The customer's city from the original order.
Order Type	The type of the original order.
Appt	Apartment number.
Modify Meter Information	
Meter #	Meter Number
Mfqr	Manufacturer.

Field Name	Description
Model	Model of the meter.
Phase	The phase associated with the customer's meter on this order.
Service Point Type	What type of service it is, like "gas", "electric".
Remote Port	Meter Remote Port code/decode data.
Location	The location of the meter.
Usage CD/Type	Usage type of the meter.
Multiplier	In some homes the monthly or bi-monthly use may be more than the meter installed can register so the meter would have a meter multiplier labeled on the front. That multiplier is usually 10. You must then multiply the answer you get for your use by the multiplier factor to get the actual amount you will be billed for.
Dials	The number read from meter dials.

## Buttons

Button Name	Description
OK	This button is used to save the completion data and return to the primary detail screen. Since the orders must be completed from the primary detail screen, the data is not sent to the server until the order is completed from the primary detail screen.
Cancel	This button is used to cancel any changes entered on the screen and return to the primary detail screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

This screen is not accessible in browse mode.

The user can cancel this screen without entering any information.

If the user changes the Mfgr: then Model will be required.

Model must be selected.

Service Point Type is selectable, but is not required

Remote Port is selectable, but not required.

Multiplier field cannot be empty.

Dials field cannot be empty. If the values of the dials are incorrect then a message will appear showing acceptable values. Ex. "The required value of this field is between 4 and 10"

### **Data Updates**

The completion data is not sent until the order is completed from the primary detail completion screen.

## Partial Restoration Steps Secondary Completion Screen

	Action	Device	Phases	Date/Time		Comments
Step 1:	<input type="text"/>					
Step 2:	<input type="text"/>					
Step 3:	<input type="text"/>					
Step 4:	<input type="text"/>					
Step 5:	<input type="text"/>					
Step 6:	<input type="text"/>					
Step 7:	<input type="text"/>					
Step 8:	<input type="text"/>					
Step 9:	<input type="text"/>					
Step 10:	<input type="text"/>					
Step 11:	<input type="text"/>					
Step 12:	<input type="text"/>					
Step 13:	<input type="text"/>					
Step 14:	<input type="text"/>					
Step 15:	<input type="text"/>					

### Function/Process Description

The Partial Restoration screen is used to enter partial restoration steps pertaining to the restoration of the outage described by the electric trouble field order. All electric trouble order types will have access to this screen.

### Data Fields

Field Name	Description
Action	This field contains the action to be taken for the step.
Device	This field contains the device affected by the step.
Phases	This field contains the phases affected by the step.
Date/Time	These fields contain the date and time the step should be performed.
Comments	This field contains freeform comments to further describe the step action.

### Buttons

Button Name	Description
OK	This button will validate the data entered and, if valid, save the data to the field order file. The dialog will be closed.
Cancel	This button will cancel any updates made and close the dialog.

**Interfaces**

If this screen is displayed in browse mode, all fields will be read-only. If this screen is displayed in completion mode, all fields will be enabled for input. Validation will be performed to ensure the appropriate data has been entered, before the data is sent to the Oracle Utilities Mobile Workforce Management Server for processing. The partial restoration steps can be entered and then saved by pressing the OK button.

**Validation**

An action must be selected for each step entered. All other fields are optional.

## Parts Secondary Completion Screen

Quantity	Type	Material Description	Amount
3	WATER H	ELE WH SG2745 CH 4500w 240V S/I	17.37

Buttons: OK, Common View, Detail View, Order Header, Meter Information, Usage History, Crew Time, Cancel, Parts, Customer Charge

### Function/Process Description

The Parts screen is for displaying and updating parts information associated with a water heater repair order. This is a secondary completion screen. This screen is displayed when the Parts button is selected on the Water Heater Primary Detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, some fields are enabled for input based on the meter type.

### Data Fields

Field Name	Description
Parts Information	Occurs 16 times
Quantity	The quantity used of the specified part. The list contains the numbers 1 through 9.
Type	The type of the specified part. This list is populated with the available part types from the Parts table (DHTPARTS).
Material Description	The material description of the specified part. This list is populated with the available descriptions base don the selected part type from the Parts table (DHTPARTS).
Amount	The unit cost of the specified part. This field is read-only.

## Buttons

Button Name	Description
OK	This button is used to save the Parts data and send it to the Server. Since the orders must be completed from the primary detail screen, this button is always disabled. Use the detail view button to navigate back to the appropriate Primary Detail screen based on the order type.
Common View	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the Parts screen is saved. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type. Before the appropriate primary detail screen is displayed, any data entered on the Parts screen is saved. This button is enabled in all modes.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. Before the Meter Information screen is displayed, any data entered on the Parts screen is saved. This button is enabled if there is meter data associated with the order.
Usage History	This button is used to navigate to the Usage History Information screen. Before the Usage History Information screen is displayed, any data entered on the Parts screen is saved. This button is enabled in all modes if the order has usage history.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always disabled.
Cancel	This button is used to cancel any changes entered on the screen and return appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type.
Parts	This button is used to navigate to the Parts screen. Since the Customer is already on the Parts screen, this button is always disabled.
Customer Charge	This button is used to navigate to the Customer Charges screen. Since the Customer Charges screen can only be accessed from the primary detail screen, this button is always disabled.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

There is no validation performed on this screen.

The Material Description list box is populated with available entries when an entry is selected in the Type list; otherwise the Material Description list is empty.

### **Data Updates**

The completion data is not sent until the order is completed from the primary detail completion screen.

## Regulator Inspection Secondary Completion Screen

### Function/Process Description

The Regulator Inspection screen is for displaying and updating regulator inspection information associated with an order. This is a secondary completion screen. This screen is displayed when the Regulator Inspection button is selected while performing a Verify on a Gas Svc Pt from the Meter Set/Change/Remove screen. If the screen is displayed in browse mode, all fields are read-only.

### Data Fields

Field Name	Description
Name	The customer's name. This field is read-only.
Addr	The customer's service address. This field is read-only.
City	The customer's service city. This field is read-only.
Order Type	The order type description. This field is read-only.
Service	The service phone number. This field is read-only.
Contact	The contact phone number. This field is read-only.
Field Regulator and Vent Location	Condition of the location: OK or Not OK.
Field Regulator and Vent Screening/Piping	Condition of the screening/piping: OK or Not OK.
Field Regulator and Vent Leak Test	Result of the leak test: OK or Not OK.

<b>Field Name</b>	<b>Description</b>
Field Regulator and Vent Remarks	Any relevant remarks regarding inspection.
Field Regulator and Vent N/A	Indicates this inspection is not applicable. Checking this box will disable this section.
Field Regulator Serial Number	Serial number digits or “Unknown” if not found.
Service Regulator and Vent Location	Condition of the location: OK or Not OK.
Service Regulator and Vent Screening/Piping	Condition of the screening/piping: OK or Not OK.
Service Regulator and Vent Leak Test	Result of the leak test: OK or Not OK.
Service Regulator and Vent Remarks	Any relevant remarks regarding inspection.
Service Regulator and Vent N/A	Indicates this inspection is not applicable. Checking this box will disable this section.
Service Regulator Serial Number	Serial number digits or “Unknown” if not found.
Curb Valve/OS Riser	Choose either “Curb Valve” or “OS Riser”.
Curb Valve/OS Riser Condition	Overall condition: OK or Not OK.
Curb Valve/OS Riser Key Fit	Condition of the key fit: OK or Not OK.
Curb Valve/OS Riser Leak Test	Result of the leak test: OK or Not OK.
Curb Valve/OS Riser Remarks	Any relevant remarks regarding inspection.
Curb Valve/OS Riser N/A	Indicates this inspection is not applicable. Checking this box will disable this section.
Regulator Pressure Test: Min Load	Result of minimum regulator pressure load test in W.C. This field is always enabled.
Regulator Pressure Test: Operating Load	Result of operating regulator pressure load test in W.C. This field is always enabled.
Inside Service Valve Accessibility Test	Result of the accessibility test: OK or Not OK.
Inside Service Valve Leak Test	Result of the leak test: OK or Not OK.
Inside Service Valve Remarks	Any relevant remarks regarding inspection.
Inside Service Valve N/A	Indicates this inspection is not applicable. Checking this box will disable this section.
GRO #	This field is always enabled.

## Buttons

Button Name	Description
OK	This button is used to confirm the Regulator Inspection data is correct for subsequent sending to the Server when the Primary Detail screen is completed.
Cancel	This button is used to cancel any changes entered on the screen and return to the appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user presses the OK button, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data for subsequent submittal by the Primary Detail order completion screen.

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When the Ok button is selected, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

Validation checks in Completion mode:

All radio button selections are required in any sections that are not set to N/A.

Remarks are required for any section that is not set to N/A and where one of the radio buttons was set to "Not OK".

If "Curb Valve" is selected in the Curb Valve/OS Riser section then the Key Fit selection is required. If "OS Riser" is selected, the Key Fit selection is not required.

For the Field Regulator and Service Regulator Serial Number Sections, either an alphanumeric serial number from 1 to 8 digits must be entered or "Unknown" must be checked.

All Remarks fields must be between 0 and 50 characters long.

The Regulator Pressure Min Load must be between 0 and 99.9 with a fractional portion of no more than 1 digit.

The Regulator Pressure Operating Load must be between 0 and 99.9 with a fractional portion of no more than 1 digit.

GRO # must be from 0 to 8 alphanumeric digits.

## Data Updates

The completion data is not sent until the order is completed from the primary detail completion screen.

## Restoration Secondary Completion Screen

### Function/Process Description

The Restoration screen is for displaying and updating restoration information associated with an Electric Trouble order. This is a secondary completion screen. This screen is displayed when the Restoration button is selected. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, some fields are enabled for input based on the Account Type chosen.

### Data Fields

Field Name	Description
Nature of Complaint	The type of electric trouble reported. This field is read-only.
Transformer #	The transformer number of the service location. This field is read-only.
Feeder	The feeder number of the service location. This field is read-only.
AOR	The restoration area of the service location. This field is read-only.
Account Type	Utility or Non-Utility. This choice determines access to various fields on the form. This field is always enabled.

<b>Field Name</b>	<b>Description</b>
Non-Utility Account Codes	List of valid account codes for Non-Utility service. Number of choices can be none to 1, ignores any additional choices. This list is derived from the DHTACTCD table. This field is only enabled when the Account Type "Non-Utility" is chosen.
Restoration Date/Time	The date and time of the actual restoration. This field will default to the current date-time. This field is always enabled.
Construction	Electric trouble Construction types drop-down. Allows 1 choice. This list is derived from the DHTCNSTR table. This field is only enabled when the Account Type "Utility" is chosen.
Problem	Specific electric trouble Problems drop-down. Allows 1 choice. This list is derived from the DHTPRBLM table and will change its contents depending on the Construction drop-down choice. This field is only enabled when the Account Type "Utility" is chosen.
Cause	Specific electric trouble Cause drop-down. Allows 1 choice. This list is derived from the DHTCAUSE table and will change its contents depending on the Problem drop-down choice. This field is only enabled when the Account Type "Utility" is chosen.
Phase	List of the Phase of the electric trouble device. Number of choices can be none to 1, ignores any additional choices. This list is derived from the DHTPHASE table. This field is only enabled when the Account Type "Utility" is chosen.
Additional Problem	List of additional electric trouble Problems. Number of choices can be none to 5, ignores any additional choices. This list is derived from the DHTADPRB table. This field is only enabled when the Account Type "Utility" is chosen.
Additional Cause	List of additional electric trouble causes. Number of choices can be none to 1, ignores any additional choices. This list is derived from the DHTCAUSE table. This field is only enabled when the Account Type "Utility" is chosen.
Action	List of electric trouble Actions. Number of choices can be none to 3, ignores any additional choices. This list is derived from the DHTACTN table. This field is only enabled when the Account Type "Utility" is chosen.
Manhole	List of electric trouble Manhole Events. Number of choices can be none to 7, ignores any additional choices. This list is derived from the DHTMHEVT table. This field is only enabled when the Account Type "Utility" is chosen.
Pole	List of electric Pole features. Number of choices can be none to 2, ignores any additional choices. This list is derived from the DHTPOLE table. This field is only enabled when the Account Type "Utility" is chosen.
Wire/Cable Joint	List of electric Cable features. Number of choices can be none to 2, ignores any additional choices. This list is derived from the DHTCABLE table. This field is only enabled when the Account Type "Utility" is chosen.

Field Name	Description
Fuse	List of electric Fuse features. Number of choices can be none to 2, ignores any additional choices. This list is derived from the DHTFUSE table. This field is only enabled when the Account Type “Utility” is chosen.
Miscellaneous	List of Miscellaneous electric trouble features. Number of choices can be none to 1, ignores any additional choices. This list is derived from the DHTTMISC table. This field is only enabled when the Account Type “Utility” is chosen.
Refer To	List of sources for Referral. Number of choices can be none to 4, ignores any additional choices. This list is derived from the DHTREFER table. This field is always enabled.

## Buttons

Button Name	Description
Send	This button is used to save the completion data and send it to the Server. Since the orders must be completed from the primary detail screen, this button is always disabled. Use the detail view button to navigate back to the appropriate Primary Detail screen based on the order type
Common View	This button is used to navigate to the Common Information screen. Before the Common Information screen is displayed, any data entered on the Restoration screen is validated and saved. This button is enabled in all modes.
Detail View	This button is used to navigate to the appropriate primary detail field order screen. Which screen is displayed is dependent on the field order type. Before the appropriate primary detail screen is displayed, any data entered on the Restoration screen is validated and saved. This button is always enabled in browse mode. If completion mode, the button is always enabled unless the detail screen is the Meter Set/Change/Remove screen and an action taken has NOT been selected.
Order Header	This button will display the Order Header dialog. This button is always enabled.
Meter Information	This button is used to navigate to the Meter Information screen. Before the Meter Information screen is displayed, any data entered on the Restoration screen is validated and saved. This button is enabled if there is meter data associated with the order.
Usage History	This button is used to navigate to the Usage History Information screen. Before the Usage History Information screen is displayed, any data entered on the Meter Set/Change/Remove screen is saved. This button is enabled in all modes if the order has usage history.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always disabled.

Button Name	Description
Cancel	This button is used to cancel any changes entered on the screen and return initial field order screen as specified in the InitialFieldOrderScreen INI parameter. If the Common Information is the initial field order screen, the user is returned to the field order list.
Equipment	This button is used to navigate to the Equipment screen. Before the Equipment screen is displayed, any data entered on the Restoration screen is validated and saved.
Dispatch	This button is always disabled. Orders cannot be dispatched from this screen.
Reassign	This button is always disabled. Orders cannot be reassigned from this screen.
Cancel Order	This button is always disabled. Orders cannot be cancelled from this screen.
Damage Assessment	This button is used to navigate to the Damage Assessment screen. Before the Damage Assessment screen is displayed, any data entered on the Restoration screen is validated and saved.
Restoration Data	This button is used to navigate to the Restoration screen. Since the user is already on the Restoration screen, this button is disabled.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

If this screen is being displayed in browse mode, all data is read-only and cannot be modified.

When navigation to another screen occurs, the completion data is validated locally. No validation is done for this order by any external application (e.g. Host System).

Validation checks in Completion mode:

The Account Type is a required field.

The Restoration Date and Time are required fields.

If the Account Type chosen is "Non-Utility" then a Non-Utility Account Code must be selected.

If the Account Type chosen is "Utility" then the Construction, Problem, and Cause drop-downs must be completed, and at least one action must be chosen from the Action list.

## Data Updates

The completion data is not sent until the order is completed from the primary detail completion screen.

## Direct Charges Secondary Completion Screen

### Function/Process Description

The Direct Charges screen allows the user to display and enter ad hoc material used by the crew on certain field orders. These are items that were not planned (e.g., Per Diem, Travel, and other non-material expenses). This is a secondary completion screen; completion data can be entered but cannot be sent from this screen. Completion data can only be sent from the primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the Direct Charges Detail fields are enabled for input.

The Direct Charges list contains a row for each direct charge entry. When this screen is initially displayed, the list is enabled for the user to select one or more rows. After that, the list is enabled or disabled based on the selected action. See **Buttons** on page 7-167 for descriptions of the actions that can be taken from this screen.

### Data Fields

Field Name	Field Description
WOT ( <i>Type of Work</i> )	The WAM Work Type code (not the MWM order type code) for the order being displayed.
WOT ( <i>Work Order #</i> )	The WAM Work Order number for the order being displayed.
WOT ( <i>Work Order Task #</i> )	The WAM Work Order Task number for the order being displayed.
FO#	The MWM Field Order number for the order being displayed.

<b>Field Name</b>	<b>Field Description</b>
Priority	The priority code associated with the MWM order type for the order being displayed.
Crew	The crew assigned to the order being displayed. If the order is not assigned to a crew, this field is empty.
Due On	The Due On date/time for the order being displayed.
Direct Charges List	This list contains a row for each direct charge item (ad hoc expenses) entry. The list is populated with the DHTFOWAM_DIRECTCHARGES rows and the DHTFOWAM_DIRECTCHARGEITEMS rows for the field order being displayed. The first entry is pre-selected. The user can select one or more rows from the list.
Date	The date for this direct charge item entry.
Employee	The employee name for this direct charge item entry.
Type	The charge type for this direct charge item entry.
Quantity	The quantity for this direct charge item entry.
Price	The price for this direct charge item entry.
Total	The total cost for this direct charge item entry.
Ref No	The reference number for this direct charge item entry.
Vendor	The vendor name for this direct charge item entry.
Direct Charges Detail	Information associated with a single direct charge item entry. In browse mode, all entries in this section are read-only or disabled.
Date	The date for this direct charge item entry. This is the date the direct charge item was incurred during the completion of the field order. The field defaults to current date when adding a new entry; otherwise, it displays the value from the selected row in the Direct Charges list.
Employee	The employee for this direct charge item entry. This is the employee that incurred the direct charge item during the completion of the field order. The field defaults to empty on Add New Entry; otherwise, it displays the value from the selected row in the Direct Charges list. This list is populated from the available values in the DHTWAMEMPL table.
Charge Type	The charge type for this direct charge item entry. This is the type of the direct charge item incurred during the completion of the field order. The field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Direct Charges list. This list is populated from the available values for the DHTWAMDIRCHR table. Once a Charge Type is selected, the Units and Price fields is populated for the selected type.

<b>Field Name</b>	<b>Field Description</b>
Units	The units for this direct charge item entry. This is the units of the direct charge item incurred during the completion of the field order based on charge type. The field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Direct Charges list. This field is populated from the DHTWAMDIRCHRG table when a Charge Type is selected. This field is read-only and cannot be modified.
Price	The price for this direct charge item entry. This is the price of the direct charge item incurred during the completion of the field order based on charge type. The field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Direct Charges list. This field is populated from the DHTWAMDIRCHRG table when a Charge Type is selected. The field accepts decimal values up to '9999.99.' This field is populated initially with the value from the table, but can be modified. If this field is modified, the Total field is re-calculated.
Quantity	The quantity for this direct charge item entry. This is the quantity of the direct charge item used during the completion of the field order. The field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Direct Charges list. The field accepts decimal values up to '9999.99.' If this field is modified, the Total field is re-calculated. If entered, the Quantity must be greater than zero.
Total	The total cost for this direct charge item entry. This is the total cost of the direct charge item incurred during the completion of the field order. The field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Direct Charges list. This field is populated by multiplying price by quantity. Any time price or quantity is modified, this field is re-calculated. This field is read-only and cannot be modified.
Vendor Name	The vendor for this direct charge item entry. This is the vendor of the direct charge item incurred during the completion of the field order. The field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Direct Charges list. This list is populated from the available values for the DHTWAMVENDOR table.
Reference Number	The reference number for this direct charge item entry. This is the reference number associated with the direct charge item incurred during the completion of the field order. This field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Direct Charges list. This field is limited to a maximum of 30 alphanumeric characters.

## Buttons

Button Name	Button Description
Find Vendor Code	Allows the user to search for and select a vendor. This button is always disabled, except when adding an entry. When this button is selected, the Find Vendor Code screen is displayed, providing alternate ways to search the Vendor list other than alphabetically. When the user selects a vendor and clicks OK from the Find Vendor Code screen, the WAM Direct Charges screen is redisplayed and Vendor Name field displays the selected vendor.
Add New Entry	Allows the user to add a new direct charge entry. This button is disabled in browse mode; otherwise, it is always enabled. When this button is selected, all fields in the Direct Charge Detail section are cleared and the Find Vendor Code, Save Entry, and Cancel Add buttons are enabled. The Add New Entry, Delete Selected Entry buttons are disabled, as is the Direct Charges list (no items can be selected).
Delete Selected Entries	Deletes the selected entries. This button is disabled in browse mode; otherwise, it is enabled when one or more entries are highlighted in the Direct Charges list. When this button is selected, the user is prompted to confirm the deletion.
Save Entry	Saves the entry being added. This button is always disabled, except when an add operation has started. When this button is selected, the data in the Direct Charge Detail section is validated. If valid, the data is saved and the Add New Entry button, Delete Selected Entry button, and the Direct Charges list are re-enabled. The Find Vendor Code, Save Entry, and Cancel Add buttons are disabled.
Cancel Add	Cancels the entry being added. This button is always disabled, except when an Add New Entry operation has been started. When this button is selected, the Add operation is canceled. The fields in the Direct Charge Detail section are cleared and the Add and Delete Selected Entry buttons and the Direct Charges list are re-enabled and the Find Vendor Code, Save Entry, and Cancel Add buttons are disabled.
Send	Saves the completion data and sends it to the Server. Since the orders must be completed from the primary detail screen, this button is always disabled. To send data, use the Detail View button to navigate back to the WAM Main Primary Detail screen.
Common View	Displays the Common Information screen. This button is always enabled.
Detail View	Displays the WAM Main Primary Detail field order screen. This button is always enabled.
Order Header	Displays the Order Header dialog. This button is always enabled.
Stock Charges	Displays the WAM Stock Charges secondary completion screen. This button is always enabled.
Direct Charges	Displays the WAM Direct Charges secondary completion screen. Since the user is already on the WAM Direct Charges screen, this button is disabled.

<b>Button Name</b>	<b>Button Description</b>
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
Cancel	Cancels any changes entered on the screen and dismisses the screen.
Notes	Displays the WAM Task Notes Informational screen. This button is always enabled.
Material	Displays the WAM Planned Material Informational screen. This button is always enabled.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

The maximum length of the fields is equal to the length of the database column. The Price field in the Direct Charge Detail section is limited to 7 bytes with the format '9999.99.' The Quantity field in the Direct Charge Detail section is limited to 7 bytes with the format '9999.99.' If entered, the Quantity field must be greater than zero. The Reference Number field is limited to a maximum of 30 alphanumeric characters.

The following fields are required for a valid Direct Charge Item entry. These fields are in the Direct Charge Detail section of the screen.

- Employee
- Charge Type
- Vendor Code
- Price
- Quantity
- Reference Number

## Data Updates

The completion data is not sent until the order is completed from the primary detail completion screen.

## Stock Charges Secondary Completion Screen

WOT: N 0800500 01 FO#: 00000000000002371 Priority: 3 Crew: Due on: 2008/07/31 00:00

Stock Code	Store Room	Quantity	Description
564055	ANA	10	Washer, Curved 5/8"

Stock Item Detail

Stock Code Store Room Quantity

Find Stock Code Add New Entry Delete Selected Entries

Save Entry Cancel Add

Send Common View Detail View Order Header Stock Charges Direct Charges Crew Time Cancel

Notes Material

### Function/Process Description

The Stock Charges secondary completion screen allows the user to display and enter planned material used on certain field order types. This is a secondary completion screen; completion data can be entered but cannot be sent from this screen. Completion data can only be sent from the primary detail screen. If the screen is displayed in browse mode, all fields are read-only. If the screen is displayed in completion mode, the Stock Item Detail fields can be enabled for input.

The Stock Charges list contains a row for each stock charge (planned material actually used) entry. When this screen is initially displayed, the list is enabled for the user to select one or more rows. After that, the list is enabled or disabled based on the selected action. See **Buttons** on page 7-170 for descriptions of the actions that can be taken from this screen.

### Data Fields

Field Name	Field Description
WOT ( <i>Type of Work</i> )	The WAM Work Type code (not to be confused with the MWM order type code) for the order being displayed.
WOT ( <i>Work Order #</i> )	The WAM Work Order number for the order being displayed.
WOT ( <i>Work Order Task #</i> )	The WAM Work Order Task number for the order being displayed.
FO#	The MWM Field Order number for the order being displayed.

<b>Field Name</b>	<b>Field Description</b>
Priority	The priority code associated with the MWM order type for the order being displayed.
Crew	The crew assigned to the order being displayed. If the order is not assigned to a crew, this field will be empty.
Due On	The Due On date/time for the order being displayed.
Stock Charges List	This list contains a row for each stock charge (planned material actually used) entry. The user can select a single row or multiple rows.
Stock Code	The stock code for this stock charge entry.
Store Room	The storeroom for this stock charge entry.
Quantity	The quantity used for this stock charge entry.
Description	The description for this stock charge entry. This is the decoded value of the stock code. This value is truncated to 200 characters.
Stock Item Detail	Information associated with a single stock charge entry. In browse mode, all entries in this section are read-only or disabled.
Stock Code	The stock code for this stock charge entry. This is the stock code for material that was actually used during the completion of the field order. The field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Stock Charges list. This list is populated from the available values in the static stock code list that was loaded at start-up.
Store Room	The storeroom for this stock charge entry. This is the storeroom that the material actually used during the completion of the field order was taken from. The field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Stock Charges list. This list is populated from the available values for the selected stock code in the static stock code list that was loaded at start-up.
Quantity	The quantity used for this stock charge entry. This is the quantity of material that was actually used during the completion of the field order. This field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Stock Charges List. The valid range is 0-9999.

## Buttons

<b>Button Name</b>	<b>Button Description</b>
Find Stock Code	Allows the user to search for and select a stock code. This button is always disabled, except when an adding a new entry. When this button is selected, the Find Stock Code dialog is displayed, providing alternate ways to search the Stock code list other than alphabetically. When the user selects a stock code and clicks OK from the Find Stock Code screen, the WAM Stock Charges screen is redisplayed and the Stock Code field displays the selected stock code.

<b>Button Name</b>	<b>Button Description</b>
Add New Entry	Allows the user to add a new entry. This button is disabled in browse mode; otherwise, it is always enabled. When this button is selected, all fields in the Stock Item Detail section are cleared and the Find Stock Code, Save Entry, and Cancel Add buttons are enabled. The Add New Entry and Delete Selected Entry buttons are disabled, as is the Stock Charges list (no items can be selected).
Delete Selected Entries	Deletes the selected entries. This button is disabled in browse mode; otherwise, it is enabled when one or more entries are highlighted in the Stock Charges list. When this button is selected, the user is prompted to confirm the deletion.
Save Entry	Saves the entry being added. This button is always disabled, except when adding a new entry. When this button is selected, the data in the Stock Item Detail section is validated. If valid, the data is saved and the Add New Entry button, Delete Selected Entry button, and the Direct Charges list are re-enabled. The Find Stock Code, Save Entry, and Cancel Add buttons are disabled.
Cancel Add	Cancels the entry being added. This button is always disabled, except when an add operation has started. When this button is selected, the Add Entry operation is cancelled. The fields in the Stock Item Detail section are cleared and the Add Entry button, the Delete Selected Entry button, and the Stock Charges list are re-enabled. The Find Stock Code, Save Entry, and Cancel Add buttons are disabled.
Send	Sends the completion data and sends it to the Server. Since the orders must be completed from the primary detail screen, this button is always disabled. To send data, use the Detail View button to navigate back to the WAM Main Primary Detail screen.
Common View	This button is used to navigate to the Common Information screen. This button is always enabled.
Detail View	Displays the WAM Main Primary Detail field order screen. This button is always enabled.
Order Header	Displays the Order Header dialog. This button is always enabled.
Stock Charges	Displays the WAM Stock Charges secondary completion screen. Since the user is already on the Stock Charges screen, this button is disabled.
Direct Charges	Displays the WAM Direct Charges secondary completion screen. This button is always enabled.
Crew Time	This button displays the Crew Time Sheet screen and passes to it the appropriate fields from the field order currently being displayed. This button is always enabled in the Mobile Workstation and always disabled in Dispatch Workstation.
Cancel	Cancels any changes entered on the screen and dismiss the screen.
Notes	Displays the WAM Task Notes Informational screen. This button is always enabled.
Material	Displays the WAM Planned Material Informational screen. This button is always enabled.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

The maximum length of the fields is equal to the length of the database column. The Quantity field has a maximum length of 4 integer digits.

The following fields are required for a valid Stock Charge entry. These fields are in the Stock Item Detail section of the screen.

- Stock Code
- Store Room
- Quantity

## Data Updates

The completion data is not sent until the order is completed from the primary detail completion screen.

## Cost Information Screen

The screenshot shows a window titled "Cost Information" with a blue title bar. Inside the window, there is a form with the following fields:

- Task Progress:** A sub-section containing:
  - Work Done:** Amount: 1, Work: Acres, Work Description: Adjustment
  - Failure:** Alignment, Mode: Fatigue Failure
  - Repair:** Adjusted, Component: Accumulator
  - Further Action:** Adjustment Required

At the bottom of the window, there is a navigation bar with five buttons: "Detail View", "Cost Information", "Stock Charges", "Direct Charges", and "Cancel".

### Function/Process Description

This screen is displayed when the user clicks the Cost Information button from the primary detail screen for supported orders. It is used to enter cost details for the order. The fields on this screen are enabled in completion mode; otherwise they are read-only and cannot be modified.

### Data Fields

Field Name	Field Description
Work Done Amount	The amount of work units done during the completion of this order. Valid range is 0-999. In browse mode, the value from the field order is displayed; otherwise, the field is empty and can be updated. This field is optional.
Work Done Unit	The type of work units done during the completion of this order. In browse mode, the value from the field order is displayed; otherwise, the field is empty and the drop-down list is populated from the DHTWAMWKUNT table. This field is optional.
Work Done Description	The field contains the type of work done during the completion of this order. If the order is being browsed, the value from the field order is displayed; otherwise, the field is empty and the drop-down list is populated from the DHTWAMWORK table. This field is optional.

Field Name	Field Description
Failure	The failure reported during the completion of this order. In browse mode, the value from the field order is displayed; otherwise, the field is empty and the drop-down list is populated from the DHTWAMFAILURE table. This field is optional.
Mode	The failure mode reported during the completion of this order. In browse mode, the value from the field order is displayed; otherwise, the field is empty and the drop-down list is populated from the DHTWAMFAILMODE table. This field is optional.
Repair	The type of repair done during the completion of this order. In browse mode, the value from the field order is displayed; otherwise, the field is empty and the drop-down list is populated from the DHTWAMREPAIR table. This field is optional.
Component	The field contains the component category repaired during the completion of this order. In browse mode, the value from the field order is displayed; otherwise, the field is empty and the drop-down list populated is populated from the DHTWAMCOMPNTCAT table. This field is optional.
Further Action	The further action report during the completion of this order. In browse mode, the value from the field order is displayed; otherwise, the field is empty and the drop-down list is populated. This list is populated from the available values in the DHTWAMFURTHERACT table. This field is optional.

## Buttons

Button Name	Button Description
Detail View	Displays the WAM Main Primary Detail field order screen. This button is always enabled.
Cost Information	This button is disabled since the Cost Information screen is currently displayed.
Stock Charges	Displays the Stock Charges secondary completion screen. This button is always enabled.
Direct Charges	Displays the Direct Charges secondary completion screen. This button is always enabled.
Cancel	Cancels any changes entered on the screen and dismisses the screen.

## Interfaces

The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard drive.

When the user navigates to another screen, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the field order is updated with the completion data.

## Validation

The fields are enabled in Completion mode only; otherwise they are read-only and cannot be modified.

**Data Updates**

The completion data is not sent until the order is completed from the primary detail completion screen.

## Support Screens

- Pickup Field Order Screen
- Support Vehicles Screen
- Set Display Columns Screen
- Set Sort Columns Screen
- Unrelated Damage Assessment Screen
- WAM Find Stock Code Screen
- WAM Find Vendor Code Screen

### Pickup Field Order Screen

	Order Number	Time Worked	Order Type
	000000000000023573	00:00	Connect
<input checked="" type="checkbox"/>	000000000000023573X	00:00	Meter Exchange
<input checked="" type="checkbox"/>	000000000000023573Y	00:00	Disconnect
<input type="checkbox"/>	000000000000023573Z		

Pickup Field Order Screen

Select Meter for Pickup Screen

### Function/Process Description

The Pickup Order screen is used to pickup orders related to the current order being completed. This function is used to record additional work performed not related to the original order being

completed. To access this screen, the user selects the Pickup or Additional Work Performed checkbox on a primary detail screen when completing an order.

If the original order contains more than one meter and a meter order is being picked up, the Select Meter for Pickup screen is displayed. This allows the user to select the meter that will be used for the new pickup order.

The user can create up to three pickup orders for the original order. The new orders will contain the same Oracle Utilities Mobile Workforce Management field order number suffixed with an 'X', 'Y', or 'Z'.

## Data Fields

Field Name	Description
Name	The customer name from the original order.
Service	The customer's service (evening) phone from the original order.
Addr	The customer's service address from the original order.
Contact	The customer's contact (day) phone from the original order.
City	The customer's city from the original order.
Life Support	Any life support indicators for the customer from the original order.
Order Number	The Oracle Utilities Mobile Workforce Management order number of the original order.
Time Worked	The work time for the original order (completion time - onsite time). This field will be zero if the pickup orders are being created on the Dispatch Workstation.
Order Type	The type of the original order.
First pickup order	Check this check box to enable the entry fields for the first pickup order.
First pickup order number	The Oracle Utilities Mobile Workforce Management order number of the first pickup order.
First pickup order time worked	The work time for the first pickup order. This field must be zero if the pickup orders are being created on the Dispatch Workstation.
First pickup order type	The type of the first pickup order. This list box is populated with only the order types that can be picked up from the original order using the valid pickup order type validation table (DHTPCKUP).
Second pickup order	Check this check box to enable the entry fields for the second pickup order.
Second pickup order number	The Oracle Utilities Mobile Workforce Management order number of the second pickup order.
Second pickup order time worked	The work time for the second pickup order. This field must be zero if the pickup orders are being created on the Dispatch Workstation.
Second pickup order type	The type of the second pickup order. This list box is populated with only the order types that can be picked up from the original order using the valid pickup order type validation table (DHTPCKUP).

Field Name	Description
Third pickup order	Check this check box to enable the entry fields for the third pickup order.
Third pickup order number	The Oracle Utilities Mobile Workforce Management order number of the third pickup order.
Third pickup order time worked	The work time for the third pickup order. This field must be zero if the pickup orders are being created on the Dispatch Workstation.
Third pickup order type	The type of the third pickup order. This list box is populated with only the order types that can be picked up from the original order using the valid pickup order type validation table (DHTPCKUP)

## Buttons

Button Name	Description
Ok	This button is used to validate the data on the screen. If the data is correct, the specified pickup orders will be created. The user is navigated to the completion screen for the first pickup order.
Cancel	This buttons will cancel the process and return to the field order list without creating any pickup orders.

## Interfaces

The screen is populated with data from the field order on the hard drive.

When the Ok button is selected, the data on this screen is validated. If an error is found, an error message is displayed on the user's screen. If the data is valid, the requested pickup orders are created.

The original order is updated with the number of pickup orders created, the types of the pickup orders created, and their associated processing sequence as retrieved from the DHTPCKUP table. The completed order data transaction for the original order is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the specific order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. The Server will update the database tables with the completion data and route the transaction to the appropriate logged-on Dispatch Workstation users and the Router.

When a pickup field order is created, the new order is stored on the hard drive. Once the pickup order has been completed, a completed order data transaction is generated. If the application is communicating in a 'Wired' mode (Dispatch Workstation is always 'Wired'), the transaction will be sent to the Oracle Utilities Mobile Workforce Management Server Application (Server) for processing. If the application is communicating in a 'Wireless' mode, the transaction control table will determine whether or not the transaction is sent. If the SEND\_CMPL\_DATA flag for the "original" order type is 'Y', the transaction will be sent to the Server; otherwise the transaction will be stored on the hard drive for transmission when the application converts to communicating in a 'Wired' mode. The Server will add the completed order to the database tables, then re-generate and route the completed order data transaction to the Router. Additionally, a Oracle Utilities Mobile Workforce Management created field order transaction is created and routed to the appropriate logged-on Dispatch Workstation users for adding the order to their field order list.

The Router will convert the completed order data transaction for the original order into the proper transaction format and hold it on the hard drive until all the completed order data transactions for the pickup orders are received. The Router will convert the completed order data transaction for each pickup order into the proper transaction format and append it to the original order transaction on the hard drive. Once all the completed order data transactions have been received, the Router will send the all the original completed order and the completed pickup orders to the appropriate external application (e.g. Host System, etc.) in one transaction.

### **Validation**

The order type lists will be populated using the valid pickup order type validation table (DHTPCKUP). The entries in this table will contain the associated order type. Only the valid pickup order types for the original order type being worked will be loaded into the lists.

Check the pickup order checkbox and the pickup order fields are enabled for input. The data for the first pickup order must be entered before the data for a second pickup order can be entered. The data for the second pickup order must be entered before the data for a third pickup order can be entered.

The Time Worked must be filled in for each picked up order created. The total time worked cannot be more than the original time worked (completion time - onsite time). The user must completely fill in the first pickup order, before the second pickup order can be entered.

### **Data Updates**

The original field order on the hard drive is updated with the number of pickup orders created. The Server updates the original field order in the database tables with the data from the completed order data transaction.

When the pickup field order is being created, the new order is written to the hard drive. The new order data is sent to the Server in the completed order data transaction when the pickup order is completed. The Server will update the database tables from the transaction. If the mobile is logged off End of Shift without ever completing the pickup order, the pickup order is destroyed and never sent to the Server.

## Support Vehicles Screen

**Support Vehicles**

Vehicle#  # Vehicles Entered:

1  
2  
3  
4  
5  
6  
7  
8  
9

Support Vehicle Definition

Vehicle ID  Support Organization  Vehicle Type

Crew Definition

# of Mem  Member 1 Job  Member 2 Job  Member 3 Job  Member 4 Job

User Id 1  User Id 2  User Id 3  User Id 4

Vehicle List

Support Organization	Vehicle ID/ Vehicle Type	# of Mem	User IDs/ Capabilities
1: AVA Electric	Dump Truck	2	Conduit, Lead Line Mechanic

Ok Delete Vehicle Cancel

### Function/Process Description

This screen is displayed when the user presses the ‘Support Vehicles’ button on the Mobile Logon screen, the Non-MDT Crew Logon screen (accessed from the Dispatch Workstation), or the Support Vehicles button on the Crew Details screen (accessed in browse mode from the Dispatch Workstation). The user enters information about their support vehicles on this screen. A maximum of nine vehicles can be added.

To add a vehicle, click the vehicle number and enter all the required information for a vehicle. If more support vehicles are to be added, select the next number in the Vehicle# list. If this is the last support vehicle to be added, select the Ok button. The vehicle data entered is validated whenever another number is selected in the Vehicle# list or the Ok button is selected. If the vehicle data is correct, the vehicle data will be added to the vehicle list at the bottom. If there are any validation errors, the user will be prompted to correct the data.

To modify vehicle data, select the appropriate number from the Vehicle# list and the fields will be populated with the corresponding vehicle data. Modify the desired fields. If another vehicle is to be modified or added, select another number from the Vehicle# list. If there are no more vehicles to add/modify, select the Ok button. The vehicle data modified is validated whenever another number is selected in the Vehicle# list or the Ok button is selected. If the vehicle data is correct, the vehicle data will be modified in the vehicle list at the bottom. If there are any validation errors, the user will be prompted to correct the data.

When the Ok button is selected and there are no errors, the user is returned to the Mobile Logon screen.

## Data Fields

Field Name	Description
Vehicle #	The number of the vehicle being entered/displayed in the fields. The user selects the number of the vehicle to be displayed / entered.
Number of Vehicles Entered	The total number of vehicles that have been entered. This is field is read-only
Support Vehicle Definition	
Vehicle ID	The ID of this vehicle. This ID must be a valid vehicle in the Vehicle table. Either the combination of Support Organization and Vehicle Type or this field is required to add a vehicle.
Support Organization	The support organization of this vehicle. Either the combination of this field and Vehicle Type or a Vehicle ID is required to add a vehicle.
Vehicle Type	The type of this vehicle. Either the combination of Support Organization and this field or a Vehicle ID is required to add a vehicle.
Crew Definition	
# of Mem	The number of crew members in this vehicle. Must be a value of 1 to 4. This is a required field to add a vehicle.
Member 1 Job	The job class of crew member 1 in this vehicle. Either this field or User ID 1 is required to add a vehicle.
Member 2 Job	The job class of crew member 1 in this vehicle. This field is initially disabled. If the value entered for “# of Mem” is greater than 1, this field will be enabled. If enabled, either this field or User ID 2 is required to add a vehicle.
Member 3 Job	The job class of crew member 3 in this vehicle. This field is initially disabled. If the value entered for “# of Mem” is greater than 2, this field will be enabled. If enabled, either this field or User ID 3 is required to add a vehicle.
Member 4 Job	The job class of crew member 4 in this vehicle. This field is initially disabled. If the value entered for “# of Mem” is 4, this field will be enabled. If enabled, either this field or User ID 4 is required to add a vehicle.
User ID 1	The ID of crew member 1 in this vehicle. This id must be a valid user in the personnel table. Either this field or Member 1 Job must be entered to add a vehicle.
User ID 2	The ID of crew member 2 in this vehicle. This field is initially disabled. If the value entered for “# of Mem” is greater than 1, this field will be enabled. This id must be a valid user in the personnel table. If enabled, either this field or Member 2 Job is required to add a vehicle.

Field Name	Description
User ID 3	The ID of crew member 3 in this vehicle. This field is initially disabled. If the value entered for “# of Mem” is greater than 2, this field will be enabled. This id must be a valid user in the personnel table. If enabled, either this field or Member 3 Job is required to add a vehicle.
User ID 4	The ID of crew member 4 in this vehicle. This field is initially disabled. If the value entered for “# of Mem” is greater than 3, this field will be enabled. This id must be a valid user in the personnel table. If enabled, either this field or Member 4 Job is required to add a vehicle.
Vehicle List	This is a read only list of the vehicles that have been added.

## Buttons

The Dispatcher Workstation and Mobile Workstation use the same set of buttons on this screen.

Button Name	Button Description
Ok	This button is used to save the selections and return to the calling screen. This button is disabled when the screen is in browse mode.
Delete Vehicle	This button is used to delete the vehicle selected.
Cancel	This button is used to not make any changes and return to the calling screen.

## Interfaces

The Support Vehicle data entered on this screen is sent to the CAD Server. The CAD Server will validate and process the data. If any of the data is invalid, an error code will be returned to the mobile. If the logon is successful, the support vehicle data will be sent to the OMS (via the Router).

## Validation

The following is the validation for adding/modifying a vehicle on the Support Vehicle screen. The user can cancel this screen without entering any support vehicle information.

A support vehicle and vehicle type must be entered or a Vehicle Id must be entered.

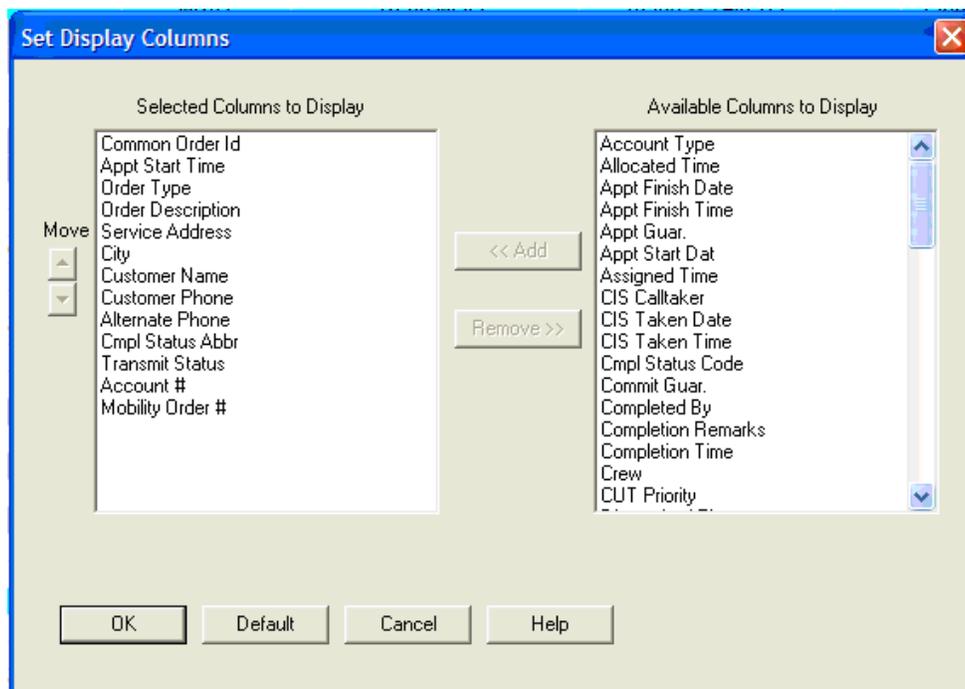
# Of Members must be 1 through 4.

Based on the # of Members, the corresponding number of Member jobs OR user Ids must be entered (e.g. if # of Members is 3, the user can enter 3 member jobs, 3 user ids, or a combination of member jobs / user ids).

## Data Updates

The support vehicle data will be stored in the Support Vehicle database table. A row will be inserted for the lead vehicle. This row will always have a sequence number of zero. Adding the lead vehicle to this table will enable the application to retrieve all the crew vehicle data from one database table. This also enables the storage of the optional 3 additional user ids with the lead vehicle.

## Set Display Columns Screen



### Function/Process Description

The Set Display Columns screen is used to select which columns to display in a list and the order in which the columns are to be displayed. There is one Set Display Columns screen that is shared by the Dispatch Workstation and Mobile Workstation applications.

To select columns for display, highlight the desired column(s) in the 'Available Columns' list and select the Add button. If a column is highlighted in the 'Selected Columns' list, the new columns are added following the highlighted column. If no column is highlighted, the new columns are added to the bottom of the 'Selected Columns' list.

To remove columns from the 'Selected Columns' list, highlight the desired columns and select the Remove button. The highlighted columns are removed from the 'Selected Columns' list and inserted into the 'Available Columns' list alphabetically.

To change the sequence of the selected columns, highlight one column in the 'Selected Columns' list and select the up or down button. The up/down buttons are disabled if no column is selected or if more than one column is selected.

Selecting the Default button will automatically load the 'Selected Columns' list with the default columns. The default columns are specified in the INI file.

The Set Display Columns function is available for the field order List and the mail List. Additionally, in the Dispatch Workstation application, this function is available for the crew status list.

### Data Fields

Field Name	Description
Selected Columns for Display	The columns that will be displayed on the list screen (e.g. field order, mail, etc.). The columns are listed in the order in which they will be displayed on the screen.

Available Columns for Display	The columns that are not displayed on the list screen. These columns are available to be selected for display. The columns are listed in alphabetical sequence.
-------------------------------	---

## Buttons

The Dispatcher Workstation and Mobile Workstation use the same set of buttons on this screen.

Button Name	Button Description
/\ \/ (arrows)	These buttons are used to reposition a selected column in the display columns list. A single column is highlighted and the arrow buttons are used to move the selected column up or down in the list. The arrow buttons are not enabled until one and only one column is selected in the display columns list.
Add	This button is used to move selected items from the available columns list to the selected columns list. By default, the selected columns are added to the bottom of the list. However, if a column is selected in the selected columns list, the columns will be inserted following the selected entry in the selected columns list.
Remove	This button is used to move selected items from the selected columns list to the available columns list. By default, the items are inserted into the available columns in alphabetical order.
Ok	This button is used to save the selections and return to the appropriate list screen. The list will be redisplayed using the correct columns.
Default	This button is used to automatically reset the selected columns list using the default selection from the appropriate INI file.
Cancel	This button is used to not make any column changes and return to the appropriate list screen.

## Interfaces

The selected columns are stored on the hard drive when the options are saved. Additionally, if the columns are set in the Dispatch Workstation application, the selected columns are stored in the user options database table (DHTUOPTS).

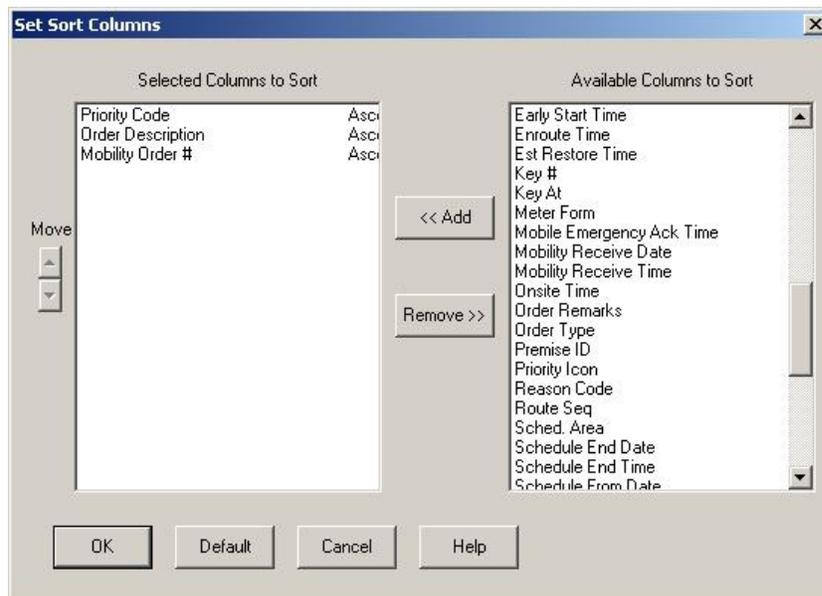
## Validation

None

## Data Updates

The selected columns are stored by user ID. The columns are stored in a file on the hard drive. Additionally, if the columns are set in the Dispatch Workstation application, the columns are stored in a database table. There is a different set of records in the database table for each subsystem.

## Set Sort Columns Screen



### Function/Process Description

Use the Set Sort Columns screen to specify the columns to use for sorting the rows in a list and the direction of the sort (i.e. ascending or descending). One Set Sort Columns screen is shared by the Dispatch Workstation and Mobile Workstation applications.

To select columns for sort, highlight the desired column(s) in the 'Available Columns' list and select the Add button. If a column is highlighted in the 'Selected Columns' list, the new columns are added following the highlighted column. If no column is highlighted, the new columns are added to the bottom of the 'Selected Columns' list.

To remove columns from the 'Selected Columns' list, highlight the desired columns and select the Remove button. The highlighted columns are removed from the 'Selected Columns' list and inserted into the 'Available Columns' list alphabetically.

To change the sequence of the selected columns, highlight one column in the 'Selected Columns' list and select the up or down button. The up/down buttons are disabled if no column is selected or if more than one column is selected.

By default, the direction for all columns in the 'Selected Columns' list is ascending. To change the sort direction of a column, double-click on the column in the 'Selected Columns' list.

Selecting the Default button automatically loads the 'Selected Columns' list with the default sort columns. The default sort columns are specified in the INI file.

The Set Sort Columns function is available for the field order list. Additionally, in the Dispatch Workstation application, this function is available for the crew status list.

### Data Fields

Field Name	Description
Selected Columns for Sort	The columns that will be used to sort the rows on the list screen (e.g. field order, mail, etc.). The columns are listed in the order in which they will be used in the sort. The direction the field will be sorted is displayed to the right of the column name.

Field Name	Description
Available Columns for Sort	The columns that are not used to sort the rows on the list screen. These columns are available to be selected for sort. The columns are listed in alphabetical sequence.

## Buttons

The Dispatcher Workstation and Mobile Workstation use the same set of buttons on this screen.

Button Name	Button Description
∨ / \ (arrows)	These buttons are used to reposition a selected column in the display columns list. A single column is highlighted and the arrow buttons are used to move the selected column up or down in the list. The arrow buttons are not enabled until 1 and only 1 column is selected in the display columns list.
Add	This button is used to move selected items from the available columns list to the selected columns list. By default, the selected columns are added to the bottom of the list. However, if a column is selected in the selected columns list, the columns will be inserted following the selected entry in the selected columns list.
Remove	This button is used to move selected items from the selected columns list to the available columns list. By default, the items are inserted into the available columns in alphabetical order.
Ok	This button is used to save the selections and return to the appropriate list screen. The list will be redisplayed using the correct columns.
Default	This button is used to automatically reset the selected columns list using the default selection from the appropriate INI file.
Cancel	This button is used to not make any column changes and return to the appropriate list screen.

## Interfaces

The selected columns are stored on the hard drive when the options are saved. Additionally, if the columns are set in the Dispatch Workstation application, the selected columns are stored in the user options database table (DHTUOPTS).

## Validation

None

## Data Updates

The selected columns are stored by user ID. The columns are stored in a file on the hard drive. Additionally, if the columns are set in the Dispatch Workstation application, the columns are stored in a database table. There is a different set of records in the database table for each subsystem.

## Unrelated Damage Assessment Screen

### Function/Process Description

The Damage Assessment screen is for entering damage assessment unrelated to any existing field order. This screen is displayed when the Unrelated Damage Assessment menu item is selected. The data entered is sent to the outage management host system.

### Data Fields

Field Name	Description
Damage Location:	
Crew ID	The Crew ID. Defaults to crew id or user id (if entered on Dispatch station) entering the information
Mobile #	The crew/contact cell phone number.
Report Date	The report date of the damage assessment. Defaults to the current date.
Report Time	The report time of the damage assessment. Defaults to the current time
Feeder	Indicates the feeder number.
Device	Indicates the interrupt device number.
Event #	Indicates the event number.

<b>Field Name</b>	<b>Description</b>
Map Page\Grid	The Map Page and Grid Location
Location	The customer's address.
City	The customer's city.
Company	The customer's company.
Region	The customer's region.
Branch	The customer's branch.
Substation	The customer's substation.
Damage Specifics:	
Est. Crew Repair	Indicates the estimated time for the crew to repair. This field is disabled.
Affected Section	Indicates the Affected sections
Phase Affected	Indicates the Phase.
Location	Indicates the location of the affected area.
Load Affected	Indicates whether the Load was affected.
Type of Crew Needed	Indicates the type of crew needed.
Damage Type	Indicates the Damage type. Damage type is selected from the list. Between 1 and 6 damage types must be selected.
Count	Indicates the count of the Damage Type.
Accessible?	Indicates the accessible of the Damage Type.
Tree Crew Required	Indicates the tree crew required
Street Light Damage Noted	Indicates the street light damage noted
Comments	Freeform Comments associated with the damage.
Required Material	
Part ID	Indicates the Part ID of the part.
Part Name	Indicates the Part Name of the part.
Qty	Indicates the quantity amount.
Comments	Freeform comments associated with the damage assessment

## Buttons

<b>Button Name</b>	<b>Description</b>
Damage Type Buttons	

Button Name	Description
Add	This button is used to add a damage type entry. The user would enter data into the damage type fields and press this button. The data in the damage type fields will be validated and if valid, the entry will be added to the damage type list.
Modify	This button is used to modify a damage type entry. When a row is selected in the damage type list before, the damage type detail fields will be populated with the data from the selected entry. The user would modify the data in the damage type fields and press this button. The data in the damage type fields will be validated and if valid, the selected entry in the damage type list will be updated.
Delete	This button is used to delete a damage type entry. When a row is selected in the damage type list before, the damage type detail fields will be populated with the data from the selected entry. The user would press this button and the selected entry will be removed from the damage type list.
Parts Buttons	
Add	This button is used to add a required part entry. The user would enter data into the parts detail fields and press this button. The data in the parts fields will be validated and if valid, the entry will be added to the parts list.
Modify	This button is used to modify a required part entry. When a row is selected in the parts list before, the parts detail fields will be populated with the data from the selected entry. The user would modify the data in the parts fields and press this button. The data in the parts fields will be validated and if valid, the selected entry in the parts list will be updated.
Delete	This button is used to delete a required part entry. When a row is selected in the parts list before, the parts detail fields will be populated with the data from the selected entry. The user would press this button and the selected entry will be removed from the parts list.
General Buttons	
OK	This button is used to validate and send the data to the Server application for processing. The user is navigated back to the field order list.
Cancel	This button is used to cancel any changes entered on the screen and return to the field order list.

## Interfaces

The data is sent to the Server application in an Unrelated Damage Assessment ICD. The Server will add the data to the database and forward the ICD to the Router for further processing.

The Router will convert the ICD into a SPLOMSUnrelatedDanmageAssessment transaction and send to the appropriate host system if so configured.

## Validation

Validation checks for Unrelated Damage Assessment Screen:

- **Damage Type List** in the **Damage Specifics** Section

- A row must be selected in the list for the Modify or Delete button to function. Whenever a row is selected in the Damage Type list, the damage type detail fields will be populated with the data from the selected entry.
- When the Add button is selected, the detail fields are validated (see detail validation below) and, if valid, a row will be added to the Damage Type list using the entered data.
- When the Modify button is selected, the detail fields are validated (see detail validation below) and, if valid, the selected row in the Damage Type list will be updated using the entered data.
- When the Delete button is selected, the selected row in the Damage Type list will be removed.
- Detail field Validation:
  - Damage Type is a required selection.
  - If Count is not entered, it defaults to zero.
- **Required Parts List** in the **Required Material** Section
  - A row must be selected in the list for the Modify or Delete button to function. Whenever a row is selected in the Parts list, the parts detail fields will be populated with the data from the selected entry.
  - When the Add button is selected, the detail fields are validated (see detail validation below) and, if valid, a row will be added to the Parts list using the entered data.
  - When the Modify button is selected, the detail fields are validated (see detail validation below) and, if valid, the selected row in the Parts list will be updated using the entered data.
  - When the Delete button is selected, the selected row in the Parts list will be removed.
    - Detail field Validation:
      - Part Id, Part Name, and Quantity are required.
- Remaining screen validation.
  - Required Fields:
    - Crew ID (default with the logged on crew or id of the user if entered on the Dispatch Station)
    - Report Date/Time (defaults to current date/time)

## Data Updates

The data is sent to the Server. The Server will update the unrelated damage assessment database tables with the data.

## WAM Find Stock Code Screen

**Find Stock Code**

Search Results

Stock Code	Description	Storeroom
CJ_TRANSFORMER	Compatible Unit Transformer	CJS
CJ_TRANS_CABLE	Compatible Units - Transmission Cable	CJS
CJ_UNDR_GRND1	Compatible Unit - Under Ground Conduit 6"	CJS
CJ_UNDR_GRND2	Compatible Unit - Under Ground Conduit 12"	CJS
CJ_UNDR_GRND3	Compatible Unit - Under Ground Conduit 3"	CJS
CJ_VARIANT_CODE	Compatible Units - Variation Code	CJS
CJ_VAULT1	Compatible Unit Underground Vault	CJS
DANNAN	DANN	DAN

Use Selected Code

Search Criteria

Stock Code:

Stock Desc:

Order By:

Search

Cancel

### Function/Process Description

This screen is used to find a specific stock code in the static in-memory stock code list by specifying search criteria.

This screen is displayed when the user selects the Find Stock Code button on the WAM Stock Charges secondary completion screen.

To find a stock code, the user enters search criteria in the bottom portion of the screen and clicks the Search button. If one or more records are found, the top portion of the screen lists all stock codes matching the search criteria. The user selects the desired code from the search results, then clicks the Use Selected Code button. The user is returned to the WAM Stock Charges screen, where the Stock Code field displays the selected stock code.

If no records are found, a message is displayed indicating that no records matched the search criteria.

### Data Fields

Field	Definition
Search Results List	This list contains a row for each stock record that met the search criteria. This list should only allow a single row to be selected.
Stock Code	The stock code of the entries that met the search criteria.
Description	The stock description of the entries that met the search criteria.
Store Room	The storeroom of the entries that met the search criteria.

Field	Definition
Search Criteria	The search values to use when searching the stock code list.
Stock Code	The stock code value to search for. The user can enter up to 15 alphanumeric characters to be used in the search. Stock code entries that contain this value are added to the Search Results list when the user clicks the Search button.
Stock Desc	The stock descriptions to search for. The user can enter up to 100 freeform characters to be used in the search. Stock code entries that contain this value are added to the Search Results list when the user clicks the Search button.
Order By	The column by which to sort the search results. The valid values are: Code and Description. The default value is Code

## Buttons

Button Name	Button Description
Use Selected Code	This button is always disabled, except when a row is selected in the Search Results list. When this button is selected, the stock code is validated. If valid, the user is returned to the WAM Stock Charges screen and the Stock Code field displays the stock code selected here.
Search	This button is always enabled. When this button is selected, the current Search Results list is cleared and a new search is performed. All records that meet the search criteria are added to the Search Results list, sorted by the Order By selection. If no search criteria are entered, all records are added to the Search Results list.
Cancel	Dismisses the screen. Without returning any stock code.

## Interfaces

None. This function searches a list of stock codes that is generated from the Oracle Utilities Mobile Workforce Management stock code database tables. These tables must be in sync with the corresponding tables in host application (such as Oracle Utilities Work and Asset Management).

## Validation

- A maximum of 15 alphanumeric characters can be entered into the Stock Code field. A maximum of 100 freeform characters can be entered into the Stock Desc field.
- A row in the Search Results list must be selected before the Use Selected Code button is enabled.

## Data Updates

This screen is used for searches only. There are no data updates for this screen.

## WAM Find Vendor Code Screen

The screenshot shows a window titled "Find Vendor Code" with a search results table and search criteria input fields.

Vendor Code	Vendor Name
RJB_VENDOR3_000000000001	Gulf Coast Pipe Depot
RLW_GRAINGER	W/W Grainger
SLC-001	Manpower contracting services
SLC-006	Walter's Landscaping Services
SLC0005	A&Z GLASS
SMITHANDSONS_000000000001	Smith and Sons
UPS	United Parcel Service of America, Inc.
USPS	United States Postal Service

Search Criteria:

Vendor Code:

Vendor Name:

Order By:

Buttons: Use Selected Code, Search, Cancel

### Function/Process Description

This screen is used to find a specific vendor in the static in-memory vendor list by specifying search criteria.

This screen is displayed when the user selects the Find Vendor Code button on the WAM Direct Charges secondary completion screen.

To find a vendor, the user enters search criteria in the bottom portion of the screen and clicks the Search button. If one or more records are found, the top portion of the screen lists all vendors matching the search criteria. The user selects the desired vendor from the search results, then clicks the Use Selected Code button. The user is returned to the WAM Direct Charges screen, where the Vendor Name field displays the selected vendor.

If no records are found, a message is displayed indicating that no records matched the search criteria.

### Data Fields

Field Name	Field Description
Search Results List	This list contains a row for each vendor record that met the search criteria. This list should only allow a single row to be selected.
Vendor Code	The vendor code of the entries that met the search criteria.
Vendor Name	The vendor name of the entries that met the search criteria.
Search Criteria	The values that are to be used to search through the vendor code list.

Field Name	Field Description
Vendor Code	The vendor code to search for. The field defaults to empty. The user can enter up to 30 alphanumeric characters to be used in the search. The search value entered is case-insensitive. Vendor records that contain this value in the Vendor Code field are added to the Search Results list when the user clicks the Search button.
Vendor Name	The vendor name to search for. The field defaults to empty. The user can enter up to 60 alphanumeric characters to be used in the search. The search value entered is case-insensitive. Vendor records that contain this value in the Vendor Name field are added to the Search Results list when the user clicks the Search button.
Order By	The column by which to sort the search results. The valid values are: Code and Description. The default value is Code

## Buttons

Button Name	Button Description
Use Selected Code	This button is always disabled, except when a row is selected in the Search Results list. When this button is selected, the selected vendor code is validated. If valid, the user is returned to the WAM Direct Charges screen and the Vendor Code field displays the vendor selected here.
Search	This button is always enabled. When this button is selected, the current Search Results list is cleared and a new search is performed. All records that meet the search criteria are added to the Search Results list, sorted by the Order By selection. If no search criteria are entered, all records will be added to the Search Results list.
Cancel	Dismiss the screen. Without returning any vendor code.

## Interfaces

None. This function searches a list of vendor names and codes that is generated from the Oracle Utilities Mobile Workforce Management vendor code database tables. These tables must be in sync with the corresponding tables in the host application (such as Oracle Utilities Work and Asset Management).

## Validation

- A maximum of 30 alphanumeric characters can be entered into the Vendor Code field. A maximum of 60 alphanumeric characters can be entered into the Vendor Name field.
- A row in the Search Results list must be selected before the Use Selected Code button is enabled.

## Data Updates

This screen is used for searches only. There are no data updates for this screen.

# Appendix A

## Field Order Status Codes

There are two types of status codes on the field order; completion status code and tracking status code.

Completion status codes define the overall status of the field order (e.g. open, complete, etc). It is also used to identify the action that caused an audit history record to be written to the field order scheduling (DHTFOSCH) database table. The audit history records in the scheduling table are identified by a RECORD\_IND = 'I' (inactive). The current completion status of the field order can be found on the active scheduling record (RECORD\_IND = 'A'). There can be one active scheduling and many audit history scheduling records.

Tracking status codes define the life cycle of the field order as it moves from inception to completion.

### Completion Status Codes

Code	Status	Abbr	Comments
C	Complete	Cmpl	If the order has been fully worked, it will be Complete and may not be re-dispatched nor worked. Orders having a Tracking Status of Cancelled, Voided, CGI or Printed will be Complete. Orders having a Track status of Worked or CmplX may be Complete. This status code can only be found in active scheduling records.
I	Incomplete	Incml	An order that has been "partially" completed is Incomplete. These orders may be worked to completion later on by the same FSR or the Dispatcher may assign to another FSR who may complete it. All partially completed information is retained for the FSR who ultimately completes it. This status code can be found in active or audit history scheduling records.
N	Not Acknowledged	Nacked	Is set by the server and indicates an emergency order was not manually acknowledged and, as a result, was reset to Assign. This status code can only be found in audit history scheduling records.
O	Open	Open	An order whose active completion status is neither complete nor Incomplete will be Open. This status code can only found in active scheduling records.
R	Reassigned	Reassn	Is set by the server and indicates an assigned order has been re-assigned. This status code can only be found in audit history scheduling records.

<b>Code</b>	<b>Status</b>	<b>Abbr</b>	<b>Comments</b>
S	Rescheduled	Reschd	Is set by the server and indicates a scheduled order has been re-scheduled. This status code can only be found in audit history scheduling records.
T	Returned	Return	Is set by the server and indicates a dispatched order has been returned by the FSR. This status code can only be found in audit history scheduling records.
U	Updated	Update	Is set by the server and indicates an order has been modified by a dispatch user. This status code can only be found in audit history scheduling records.
X	Suspend	Suspnd	Is set by the server and indicates an order, on which an FSR has either gone enroute or on-site, has had an FSR press the Status Cancel button. This status code can only be found in audit history scheduling records.

## Tracking Status Codes

<b>Code</b>	<b>Status</b>	<b>Abbr</b>	<b>Comments</b>
A	Assigned	Assign	Reflects that an order has been assigned to an FSR. The associated active completion status will be Open. It can also appear in audit history scheduling records.
C	Cancelled	Cancel	Reflects that an order has been cancelled by a dispatcher in Oracle Utilities Mobile Workforce Management only using the Cancel Order process. The associated active completion status will be Complete.
D	Dispatched	Dspstch	Reflects that an order has been successfully dispatched to a mobile (physically stored on the mobile device). The associated active completion status will be Open. It can also appear in audit history scheduling records.
E	Enroute	Enrout	Reflects that the FSR is "en-route" the order. The associated active completion status will be Open. It can also appear in audit history scheduling records.
G	Can't Get In	CGI	Reflects that the order was completed, but the FSR could not gain access to the service location. The associated active completion status will be Complete.
I	Onsite	Onsite	Reflects that the FSR is "onsite" the order. The associated active completion status will be Open. It can also appear in audit history scheduling records.
K	Acknowledged	Ack	Reflects that the mobile crew has manually acknowledged receipt of an emergency priority order. It doesn't imply the FSR has done anything with it. The associated active completion status will be Open. It can also appear in audit history scheduling records.

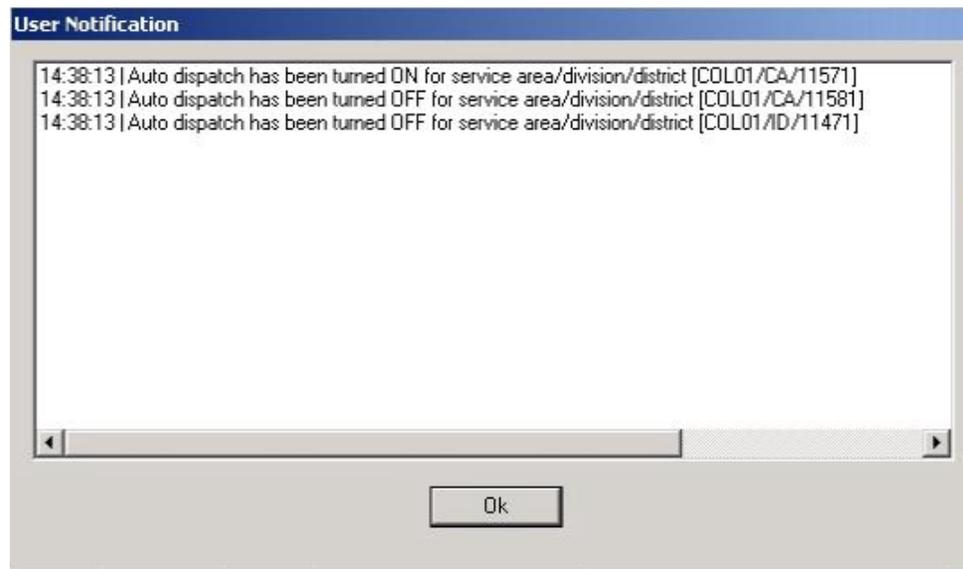
<b>Code</b>	<b>Status</b>	<b>Abbr</b>	<b>Comments</b>
L	Allocated	Alloc	<p>Reflects that an order has been allocated to an FSR. The associated active completion status will be Open. It can also appear in audit history scheduling records.</p> <p>Allocated is very similar to Assigned and differs only when Oracle Utilities Mobile Workforce Management is integrated with Oracle Real-time Scheduler. This status indicates that the order has been allocated to a specific shift cannot be reassigned to another shift by the scheduler. A Dispatch user can manually reallocate the order to another shift.</p>
N	Printed	Print	Reflects that a paper order has been printed. The associated active completion status will be Complete.
O	Dispatch with Voice	Voice	No longer used.
P	Being Rescheduled	Reschd	No longer used.
R	Ready to Dispatch	Ready	<p>Reflects that a Dispatch user has indicated that the order is available to be dispatched to the FSR as soon as they logon to the Mobile Workstation. If the FSR is currently logged on, the Server application will immediately start dispatching the order to the FSR's mobile unit. If the FSR is not currently logged on, the Server will start dispatching the order as soon as the FSR logs onto the Mobile Workstation. The associated active completion status will be Open. It can also appear in audit history scheduling records.</p>
S	Suppressed	Supprs	<p>Reflects that the order has been automatically or manually suppressed. An order with a status of suppressed will not appear in the field order list unless the user uses the Include Criteria functionality to select suppressed orders. This status only applies to Westar electric trouble orders (i.e. TOEL, TOEE, and TOTS). If an electric trouble order containing a device number already exists, any other electric trouble orders received that contain the same device number will be auto-suppressed. The associated active completion status will be Open.</p>
T	Trying to Dispatch	Trying	<p>Reflects an order that is currently in a trying state. When the Server application sends the order dispatch transaction to the FSR, the status is changed to Trying. Trying simply means the Server has sent the order to the mobile. No updates can be made to an order with a status of trying. The transaction is in transit (trying) and will remain in trying until the mobile application acknowledges receipt of the order OR the dispatch times out. If it is acknowledged by the mobile application, the status is changed to Dispatched. If the order dispatch times out, the status is reset to Assign. The associated active completion status will be Open.</p>
U	Unassigned	Unassn	Reflects that the order is not presently assigned to an FSR. The associated active completion status will be Open. It can also appear in audit history scheduling records.
V	Voided	Voided	Reflects that an order has been voided by CIS or that the order was cancelled by a Dispatch Workstation user using the Cancel Order process (MWM only unchecked). The associated completion status will be Complete

---

<b>Code</b>	<b>Status</b>	<b>Abbr</b>	<b>Comments</b>
W	Worked	Worked	Reflects that the order has been worked. The associated completion status may be Complete or Incomplete.
X	Completed with Exception	CmplX	Reflects that the order has been worked but there may be exceptions involved. The associated completion status may be Complete or Incomplete. Customized processing may be required to implement this status.

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- **Specific messages** – These messages are displayed in a unique window specific to that message. Specific Message dialogs may have function buttons for invoking additional functionality. An example of a specific message is shown below:



- **External Alerts** – External applications, such as Oracle Real-time Scheduler, may send messages to Oracle Utilities Mobile Workforce Management. These messages are validated and then displayed to Dispatch Workstation users as system messages and/or user notifications (as determined by the display mode specified in the incoming message).
  - DHTTEXTCONN contains a record for each external application connection, such as RTS for Oracle Real-time Scheduler.
  - DHTXALMSG is used to look up the message text that will be displayed to the user based on the error message code.

**Note:** This appendix does not include server error messages, which are displayed on the Server application dialog and in the server logs files. For a list and description of these messages, see the Server Application online help.

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# Messages

This section lists all Dispatch Workstation messages in alphabetical order, including system messages, notifications/warnings, and specific messages.

**Address Match**

**Broken Bond**

**Broken Bond**

**Cancel Order for Non-Wireless Crew**

**Change Auto Dispatch**

**Connection Status**

**Corrupt Order Completion Transaction**

**Crew/User Attempting to Complete Orders in Error**

**Crew Attempting to Process Orders in Error**

**Crews Available for Assignment**

**Crew Clear**

**Danger of Missed Appointment**

**Danger of Missed Commitment**

**Request for Emergency Assistance**

**Emergency Order Acknowledged**

**Emergency Order Not Acknowledged**

**Emergency Order Received**

**End of Day Process Cancelled**

**End of Day Process Initiation**

**Failed to Process Field Order from Host**

**Failed to Process Field Order Update – Crew Onsite**

**Failed to Process Mobility Created Fo**

**Field Order With Invalid Crew**

**Order has Been Rescheduled**

**Order Updated from the Mainframe**

**Rejected Transaction**

**Request for Emergency Assistance**

**Reschedule Order for Non-Wireless Crew**

**Router Connected/Disconnected to External Application**

**Router Listener Connected/Disconnected**

**RTS Pass-Through Alert (if applicable)**

**Stop Disabled**

**Stop Late**

**Stop Overdue**

**Supervisor Attempting to Reassign Completed Order**

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**Taking Too Long**  
**Timed Event**  
**Unable to Deliver Mail**  
**Unable to Dispatch Field Order**  
**Unable to Process Non-MDT Logon**  
**Unable to Process RF Logon**  
**Uncovered Service Areas**  
**Update to Order Assigned to Logged-Out Crew**

### **Address Match**

**Message Type:** System Message and User Notification

**Message Text:**

```
The following orders match order (99999) at address [xxxxx]: 99999,  
99999
```

**Message Recipient:** The Address Match Notification is sent to all logged on Dispatch Workstation users who are monitoring the field order's service area.

**Description:** The notification is only generated if the CheckForOrderMatchByAddress DHTSVINI parameter is set to TRUE. The message is generated when an order is added to the system and there is already an existing open order for the same address. The message is also written to the System Messages subsystem.

### **Bond Violation**

**Message Type:** System Message

**Message Recipient:** The Bond Violation Warning is sent to all logged on Dispatch Workstation users.

**Description:** This warning is generated if the GenerateBondViolationWarnings DHTSVINI parameter is set to TRUE. Stop Bond Violation applies to Assist orders only. This warning is activated for any stop that is not scheduled to start at the time required by its bond. This only applies to Assist orders. (late for the assist).

### **Broken Bond**

**Message Type:** System Message

**Message Recipient:** The Broken Bond Warning is sent to all logged on Dispatch Workstation users.

**Description:** The warning is generated if the GenerateBrokenBondWarnings DHTSVINI parameter is set to TRUE. Broken Bond Warning applies to Assist orders only. This warning is activated for any stop that is a part of an Assist and has not been assigned to any shift (could not find the appropriate crew).

### **Cancel Order for Non-Wireless Crew**

**Message Type:** System Message and User Notification

**Message Text:**

```
Order#99999 needs to be cancelled on mobile device but Crew [9999]  
is NOT communicating wirelessly. The type of order#99999 is [type]  
located at address [address][city, state zip]
```

---

**Message Recipient:** The Cancel Order for Non-Wireless Crew Notification is sent to all logged on Dispatch Workstation users monitoring the field order's service area.

**Description:** The notification is only generated if the UseNonLANMobiles DHTSVINI parameter is set to TRUE and the crew assigned to the order is communicating via a LAN connection. The message is also written to the System Messages subsystem.

### **Change Auto Dispatch**

**Message Type:** User Notification

**Message Text:**

Auto dispatch has been turned ON/OFF for service area/division/  
district [999/999/999]

**Message Recipient:** The Change Auto Dispatch Notification is sent to all logged on Dispatch Workstation users, regardless of access level.

**Description:** The message will state that auto dispatch for the division/district/service area has been turned on/off.

### **Connection Status**

**Message Type:** System Message

**Message Text:**

Server and Router are NOT connected. Please notify help desk.

Server and Router are connected.

Server and RfTransport are NOT connected. Please notify help desk.

Server and RfTransport are connected.

**Message Recipient:** This message is routed to all logged on Dispatch Workstation users.

**Description:** This message is sent whenever the Server application detects that the Router application or RfTransport application has connected/disconnected.

### **Corrupt Order Completion Transaction**

**Message Type:** System Message and User Notification

**Message Text:**

A completion transaction with corrupt field order data was received from crew [9999] with source [xxxx]. Contact the crew to get the correct completion data.

**Message Recipient:** The Corrupt Order Completion Transaction Notification is sent to the Dispatch Workstation user that is monitoring the crew's dispatch area. If no Dispatch Workstation users are monitoring the crew's area, the message is sent to all logged on Dispatch Workstation users.

**Description:** The message is generated when the Server is unable to process the completion transaction for an order. The Dispatch Workstation user should contact the crew to get the completion data and then manually complete the order on the Dispatcher Station or in the external application. The message is also written to the System Messages subsystem.

### **Crews Available for Assignment**

**Message Type:** System Message and User Notification

**Message Text:**

Crews available for assignment: (9999), (9999),...(9999)

---

**Message Recipient:** The Crew Available for Assignment Notification is sent to all logged on Dispatch Workstation users with an access level of DISPATCHER\_SUPERVISOR or DISPATCHER.

**Description:** The message will state that the specified crew is clear and available for assignment. A crew is considered available for assignment if they have no open orders on their device. These warnings are only generated if the GenerateCrewClearWarnings parameter is TRUE. The message is also written to the System Messages subsystem.

### **Crew Attempting to Process Orders in Error**

**Message Type:** System Message

**Message Text:**

Crew (99999) attempting to process order# (9999999). This order is not in Mobility system.

Crew (99999) attempting to process order# (9999999). This order has already been printed.

Crew (99999) attempting to process order# (9999999). This order is already complete.

Crew (99999) attempting to process order# (9999999). This order is assigned to crew (99999).

**Message Recipient:** Message is routed to all logged on Dispatch users, regardless of access level, that are monitoring the dispatch area that contains the crew.

**Description:** This message is sent whenever a crew is attempting to process (enroute, onsite, complete) an order and the order matches one of the following conditions:

Not in Mobility

Already Complete/Printed

Assigned to another crew or unassigned.

### **Crew/User Attempting to Complete Orders in Error**

**Message Type:** System Message

**Message Text:**

Crew (99999) attempting to complete order# (999999999). This order is not in Mobility system.

Crew/User (99999) attempting to complete order# 999. This order has already been printed.

Crew/User (99999) attempting to complete order# (999999999). This order is already complete.

Crew (99999) attempting to complete order# (999999999). This order is assigned to crew (99999).

**Note:** If the completion is coming from the Dispatch Workstation, the message displays the DW user ID; if the completion is coming from the Mobile Workstation, the message displays the crew ID.

**Message Recipient:**

Message is routed to all logged on Dispatch users, regardless of access level, that are monitoring the dispatch area that contains the field order.

**Description:** This System Message is sent whenever a crew is attempting to complete an order and the order matches one of the following conditions:

Not in Mobility

Already Complete/Printed

Assigned to another crew or unassigned.

### Crew Clear

**Message Type:** System Message and User Notification

**Message Text:**

Crew (9999) has cleared all orders

**Message Recipient:** This message is routed to all logged on Dispatch Workstation users who are monitoring the dispatch area that contains the crew.

**Description:** The notification is generated when the crew has worked their last dispatched order. The message is also written to the System Messages subsystem.

### Danger of Missed Appointment

**Message Type:** Specific Message

**Message Text:**

The appointment time for the following order is in danger of being missed:

**Crew Data**  
Crew ID: 01375      Tech ID: 01375      Pager/Cell Phone Number: 555-555-1212  
Vehicle ID: 1001      Tech Name: Greg Cerny

**Field Order Data**  
Ext. App. Number: 154317      Service Area: PJCS68  
Fo Number: OMS00000070367      Fo Type: NOISE  
Service Address: 6831

**Customer Data**  
Customer Name: Rowena Alma Betty Christine  
Valerie Anne Elizabeth Hopkins  
Service: (555)555-1212  
Contact: (555)555-1213

**Appointment Data**  
Current Time: 08:41:40  
Appointment Start Time:  
Appointment Finish Time: 09:40:00

Buttons: Reassign to Another Crew, Notify Supervisor, Cancel, Help

**Message Recipient:** This message is sent to the user that dispatched the order.

**Description:** Danger of Missed Appointment Warning uses a unique screen for displaying the order information. This message indicates that the crew must be onsite to the order within x minutes or the appointment will be missed, where 'x' is the value of the warning notification buffer (ApptNotificationBuffer) parameter in the Server.ini file. The user can reassign the order to another crew by pressing the Reassign Order to Another Crew button. The user can have a mail message sent to the crew's supervisor by pressing the Notify Supervisor button. The user can dismiss the screen without processing the order by pressing the Cancel button or the 'X' in the top-right hand corner of the screen. The user can invoke the online help facility for this screen by pressing the Help button. See the Field Order subsystem in the Dispatch Workstation section of this document for more details on the reassign function. These warnings are only generated if the GenerateMissedAppointmentWarnings parameter is TRUE.

## Danger of Missed Commitment

**Message Type:** Specific Message

**Message Text:**

The commitment time for the following order is in danger of being missed:

**Crew Data**  
Crew ID: MwMBase    Tech ID: MwMBase    Pager/Cell Phone: 555-555-1212  
Vehicle ID: MwMTRKO    Tech Name: MwMBaseCrew

**Field Order Data**  
Ext. App. Number: 154317    Service Area: PJCS68  
Fo Number: OMS00000070352  
Service Address: address

**Customer Data**  
Customer Name: Diane Rowena Christine Alma  
Vanessa Katherine Mary Anne  
Service Phone: (503)813-7187  
Contact Phone: (503)813-7187

**Commitment Data**  
Current Time: 16:46:25  
Commitment Date: 07/04/2008  
Commitment Time: 17:45:00

Reassign to Another Crew    Notify Supervisor    Cancel    Help

**Message Recipient:** This message is sent to the user that dispatched the order.

**Description:** Danger of Missed Commitment Warning uses a unique screen for displaying the order information. This message indicates that the crew must have completed the order within x minutes or the commitment will be missed, where 'x' is the value of the warning notification buffer (ApptNotificationBuffer) parameter in the Server.ini file. The user can reassign the order to another crew by pressing the Reassign Order to Another Crew button. The user can have a mail message sent to the crew's supervisor by pressing the Notify Supervisor button. The user can dismiss the screen without processing the order by pressing the Cancel button or the 'X' in the top-right hand corner of the screen. The user can invoke the online help facility for this screen by pressing the Help button. See the Field Order subsystem in the Dispatch Workstation section of this document for more details on the reassign function. These warnings are only generated if the GenerateMissedCommitmentWarnings parameter is TRUE.

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## Emergency Order Acknowledged

**Message Type:** Specific Message

**Message Text:**



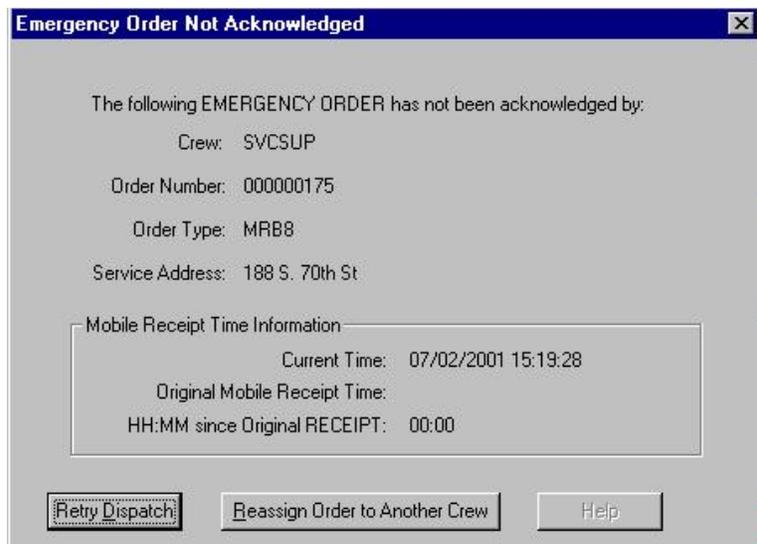
**Message Recipient:** This message is sent to the user that dispatched the order.

Emergency Order Acknowledged uses a unique screen for displaying the order information. This message indicates the mobile user has manually acknowledged receipt of an emergency order. This notification can be turned off system-wide by setting the send emergency acknowledgment transactions to dispatcher (SendEmergencyAckToDW) parameter in the Server.ini file to 'FALSE.' The user can dismiss the screen by pressing the Cancel button on the 'X' in the top-right hand corner of the screen. The user can invoke the online help facility for this screen by pressing the Help button.

## Emergency Order Not Acknowledged

**Message Type:** Specific message

**Message Text:**



**Message Recipient:** This message is sent to the user that dispatched the order.

**Description:** Emergency Order Not Acknowledged uses a unique screen for displaying the order information. This message indicates the mobile user has not manually acknowledged receipt of an

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emergency order within the set time period. The user can retry dispatching the order to the same crew by pressing the Retry Dispatch button or they can reassign to the order to another crew by pressing the Reassign Order to Another Crew button. The user can dismiss the screen without processing the order by pressing the 'X' in the top-right hand corner of the screen. See the Field Order subsystem in the Dispatch Workstation section of this document for more details on the dispatch and reassign functions.

### Emergency Order Received

**Message Type:** Specific Message

**Message Text:**



**Message Recipient:** Message is generated when a new emergency order is received from an external application. The new emergency order is routed to all Dispatch Workstation users that are monitoring the dispatch area that contains the field order. This message will not be generated for users with an access level of BROWSE-Only.

**Description:** Emergency Order Received uses a unique screen for displaying the order information. The user can dismiss the screen by pressing the Close button on the 'X' in the top-right hand corner of the screen.

### End of Day Process Initiation

**Message Type:** System Message

**Message Text:**

End of Day processing will begin in 9 minutes from C012345!

**Message Recipient:** This message is routed to all logged on Dispatch users, regardless of access level.

**Description:** This message is sent once every minute once the End of Day process has been initiated until it actually begins. The message displays the connection name of the Dispatch user that initiated the End of Day process.

### End of Day Process Cancelled

**Message Type:** System Message

**Message Text:**

End of Day processing has been canceled from C012345!

**Message Recipient:** This message is routed to all logged on Dispatch users, regardless of access level.

**Description:** This message is sent when the initiating user cancels the End of Day process before it starts. The message displays the connection name of the Dispatch user that initiated the End of Day process.

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### **Failed to Process Field Order from Host**

**Message Type:** System Message

**Message Text:**

Failed to process FO from mainframe - FO# [###] CIS# [###]. Please notify help desk.

**Message Recipient:** This message is routed to all logged on Dispatch Workstation users.

**Description:** This message is sent whenever an error occurs processing a Mobility Created Fo transaction from a Dispatch user. See also (Failed to Process Order)

### **Failed to Process Field Order Update – Crew Onsite**

**Message Type:** System Message

**Message Text:**

00012: Failed to process Field Order Update - Crew (9999) is Onsite to order (FO# 999) (CIS# 999)

**Message Recipient:** This message is routed to all logged on Dispatch Workstation users who are monitoring the dispatch area that contains the field order.

**Description:** This message is sent whenever an error occurs processing a Mobility Created Fo transaction from a Dispatch Workstation user. See also (Failed to Process Field Order)

### **Failed to Process Mobility Created Fo**

**Message Type:** User Notification

**Message Text:**

Failed to process Mobility created field order ICD. *List of errors that occurred*

**Message Recipient:** This message is sent to the user who created the order.

**Description:** This message is sent whenever an error occurs processing a Mobility Created Fo transaction from a Dispatch Workstation user.

### **Field Order With Invalid Crew**

**Message Type:** System Message

**Message Text:**

Order# 999999999 contained an invalid crew [99999]. Order reset to Unassigned.

**Message Recipient:** Message is routed to all logged on Dispatch users who are monitoring the dispatch area that contains the field order.

**Description:** This System Message is sent whenever a field order create/update contains a crew that is not in the Oracle Utilities Mobile Workforce Management system.

### **Order has Been Rescheduled**

**Message Type:** System Message and User Notification

**Message Text:**

Order# 999 has been rescheduled but Crew [9999] is NOT communicating wirelessly. The scheduled from time is now [07/30/2007 15:00:00] and the scheduled to time is now [07/30/2007 15:00:00].

**Message Recipient:** Message is routed to all logged on Dispatch users who are monitoring the dispatch area that contains the field order.

**Description:** This message is sent when an order is rescheduled and the crew is not communicating wirelessly. The message contains the new schedule time.

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## Order Updated from the Mainframe

**Message Type:** System Message and Notification

**Message text:**

Order# 999999999 has been updated from the mainframe. The order has been dispatched to crew [99999] and the crew is communicating in a [Wired] mode.

Order# 999999999 has been updated from the mainframe. The order has been dispatched to crew [99999] and the crew is communicating in a [Wireless] mode. The order will be automatically re-dispatched to the crew.

**Message recipient:** This message is routed to all logged on Dispatch users that are monitoring the dispatch area that contains the field order.

**Description:** This notification is sent when an order is updated from the host and the order has been dispatched to a crew. If the crew is communicating via wireless connection, the updated order is re-dispatched to the crew.

## Rejected Transaction

**Message Type:** System Message and User Notification

**Message Text:**

Transaction [999] containing bad data was rejected by the Router. The order has been saved to file [xxxxxx]. Please notify help desk.

**Message Recipient:** The Rejected Transaction notification is sent to all logged on Dispatch Workstation users.

**Description:** This message is generated by the Router when a transaction containing invalid data fails to be processed. The transaction data is written to the Router's External Error folder. The user should notify the help desk or support team so they can investigate the rejected transaction.

This user notification message is only displayed if the DisplayDwNotifyFromAdviseAppl DHTDWINI parameter is set to Yes. The message is always written to the System Messages subsystem.

## Request for Emergency Assistance

**Message Type:** System Message and User Notification

**Message Text:**

Crew (9999) has sent an emergency Request for Assistance

**Message Recipient:** The Request for Emergency Assistance notification is sent to all logged on Dispatch Workstation users.

**Description:** This message is generated by the Server when a mobile user sends an emergency request from the Mobile Workstation application. The message is also written to the System Messages subsystem.

## Reschedule Order for Non-Wireless Crew

**Message Type:** System Message and User Notification

**Message Text:**

Order#99999 has been rescheduled but Crew [9999] is NOT communicating wirelessly. The scheduled from time is now [MM/DD/YYYY HH:MM:SS] and the scheduled to time is now [MM/DD/YYYY HH:MM:SS].

**Message Recipient:** The Reschedule Order for Non-Wireless Crew Notification is sent to all logged on Dispatch Workstation users monitoring the field order's service area.

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**Description:** The notification is only generated if the UseNonLANMobiles DHTSVINI parameter is set to TRUE and the crew assigned to the order is communicating via a LAN connection. The message is also written to the System Messages subsystem.

### **Router Listener Connected/Disconnected**

**Message Type:** System Message and User Notification

**Message Text:**

(XXX) connected to Router listener

(XXX) disconnected from Router listener

**Message Recipient:** Router Listener Connected/Disconnected notifications are sent to all logged on Dispatch Workstation users.

**Description:** These messages are generated by the Router during the processing of the heart beat transactions for a WEB type connection. Processing of heart beat transactions in the Router is two-fold: successfully send a heart beat transaction to an external application and successfully receive a heart beat transaction from an external application.

If the Router does not receive a heart beat transaction from an external application every x seconds, the connection is considered to be disconnected from the Router Listener. The disconnect message will be generated and sent to the Server for routing to the Dispatch Stations. If a heart beat transaction is received for a disconnected connection, the application is considered connected to the Router Listener. The connect message will be generated and sent to the Server for routing to the Dispatch Stations.

This message means that the Router is not receiving messages from the connection. The name of the connection (e.g. OMS, CSS, RTS, etc.) is displayed in the notification message. In the case of Oracle Real-time Scheduler, this could indicate that an Oracle Real-time Scheduler component or the Integration Manager is not running. If the connection is disconnected, the user should notify the help desk or support team so they can ensure the connection is re-established.

This user notification message is only displayed if the DisplayDwNotifyFromAdviseAppl DHTDWINI parameter is set to Yes. The message is always written to the System Messages subsystem.

### **Router Connected/Disconnected to External Application**

**Message Type:** System Message and User Notification

**Message Text:**

Router and (XXX) connected

Router and (XXX) NOT connected

**Message Recipient:** The Router Connected/Disconnected to External Application notification is sent to all logged on Dispatch Workstation users.

**Description:** These messages are generated by the Router to indicate that the Router is not communicating with an external application. Connection is determined differently depending on the type of connection.

If the connection type is FSMS, the Router communicates to the external application via a socket. When the socket is created between the two applications, the Router is connected. The connected message will be generated and sent to the Server for routing to the Dispatch Stations. If the socket is broken, the Router is not connected. The not connected message will be generated and sent to the Server for routing to the Dispatch Stations.

If the connection type is FILE, the Router communicates to the external application via an input and output directory. The only way to determine if the Router is connected to the external application using a FILE connection is to use a heart beat transaction. The Router will send a heart beat every x seconds and expects to receive an answering heart beat transaction back. If the Router does not receive a heart beat transaction from the external application every x seconds, the

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connection is considered to be disconnected. The not connected message will be generated and sent to the Server for routing to the Dispatch Stations. If any transaction is received for a disconnected connection, the application is considered connected to the Router. The connect message will be generated and sent to the Server for routing to the Dispatch Stations.

If the connection type is WEB, the Router communicates to the external application via a web service. If the Router does not successfully send a transaction to an external application via their web service, the connection is considered to be disconnected from the Router. The not connected message will be generated and sent to the Server for routing to the Dispatch Stations. If the Router is able to successfully send a transaction to the web service for a disconnected connection, the application is considered connected to the Router. The connect message will be generated and sent to the Server for routing to the Dispatch Stations.

This message means that the Router is not able to send messages to the connection. The name of the connection (e.g. OMS, CSS, RTS, etc.) is displayed in the notification message. In the case of RTS, this could indicate that an Oracle Real-time Scheduler component or the Integration Manager is not running. If the connection is not connected, the user should notify the help desk or support team so they can ensure the connection is re-established.

This user notification message is only displayed if the DisplayDwNotifyFromAdviseAppl DHTDWINI parameter is set to Yes. The message is always written to the System Messages subsystem.

### **RTS Pass-Through Alert (if applicable)**

**Message Type:** System Message and/or User Notification

**Message Recipient:** The RTS pass-through alerts are sent to all logged on Dispatch Workstation users.

**Description:** The message is generated if Oracle Real-time Scheduler is sending alerts to Oracle Utilities Mobile Workforce Management and if the Integration Manager component is configured to send them through. This message displays any system-wide information Oracle Real-time Scheduler deems important to display on the Dispatch Workstation. The display mode (either system message or user notification) is specified in the message from Oracle Real-time Scheduler.

### **Stop Disabled**

**Message Type:** System Message

**Message Recipient:** The Stop Disabled Warning is sent to all logged on Dispatch Workstation users.

**Description:** The warning is generated if the GenerateStopDisabledWarnings DHTSVINI parameter is set to TRUE. This warning is activated for any stop that has been disabled due to data errors, or a missing geocode.

### **Stop Overdue**

**Message Type:** System Message

**Message Recipient:** The Stop Overdue Warning is sent to all logged on Dispatch Workstation users.

**Description:** The warning is generated if the GenerateStopOverdueWarnings DHTSVINI parameter is set to TRUE. This warning is activated when a Resource is late to signal its arrival at its destination. The expected arrival time is fixed to the estimated arrival time after a Stop is set to ENROUTE. ETA is running behind the value it had when dispatched.

### **Stop Late**

**Message Type:** System Message

**Message Recipient:** The Stop Late Warning is sent to all logged on Dispatch Workstation users.

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**Description:** The warning is generated if the GenerateStopLateWarnings DHTSVINI parameter is set to TRUE. This warning is activated for any stop in the plan that is scheduled to be late.

### Supervisor Attempting to Reassign Completed Order

**Message Type:** System Message

**Message Text:**

Supervisor [xxx] is attempting to reassign order [999] to crew [9999] and the order is already complete.

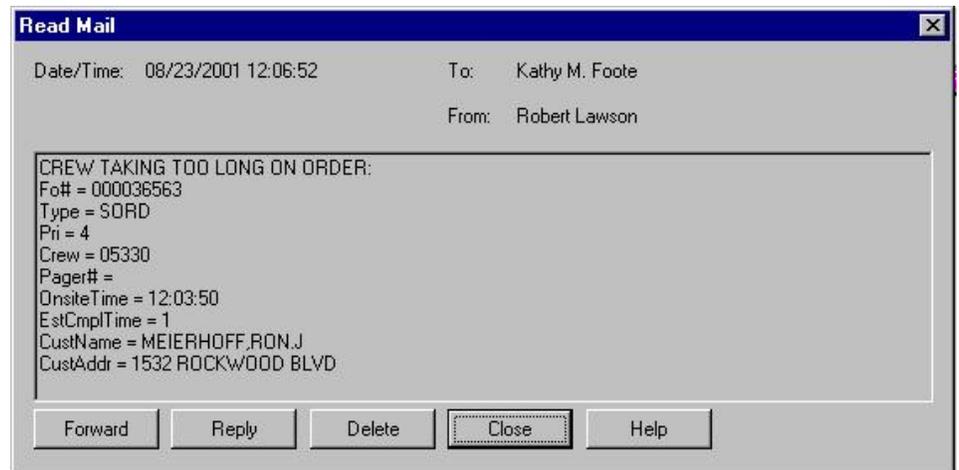
**Message Recipient:** This message is routed to all logged on Dispatch Workstation users that are monitoring the dispatch area that contains the crew.

**Description:** This message is sent when a Mobile Supervisor attempts to reassign an order and the order is already complete.

### Taking Too Long

**Message Type:** Specific Message

**Message Text:**



**Message Recipient:** This message is sent to all logged Dispatch Workstation users that are monitoring the crew.

**Description:** Taking Too Long notification is a mail message automatically generated by the Server. This notification indicates the crew is onsite and has not completed the order within the estimated completion minutes. Estimated completion minutes are set by order type in the field order type table. The user has all the options available for a mail message. See Read Mail in the Dispatch Workstation section of this document for more details. These warnings are only generated if the GenerateTakingTooLongWarnings parameter is TRUE.

### Timed Event

**Message Type:** User Notification

**Message Text:**

Crew (9999) has started timed event. Start Time= HH:MM Expiration Time= HH:MM

Crew (9999) has stopped timed event. Start Time= HH:MM

Timed Event for crew (9999) has timed out. Start Time= HH:MM Expiration Time= HH:MM

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**Message Recipient:** The Timed Event notifications are sent to all logged Dispatch Workstation users who are monitoring the crew's current service area.

**Description:** The Started Timed Event notification will be sent when the crew starts a timed event. The Stopped Timed Event notification will be sent when the crew stops a timed event. The timed out notification will be sent when a crew's timed event expires without being stopped.

### Unable to Deliver Mail

**Message Type:** System Message

**Message Text:**

```
Unable to deliver mail From: (xxxxxx) To: (xxxxxx) Dated: MM/DD/YYYY
at: HH:MI:SS.
Reason was: delivery error
```

*Delivery error* is one of the following:

- User is not logged on
- Mail was not received by user
- No acknowledgement received for emergency mail message
- Unknown return code

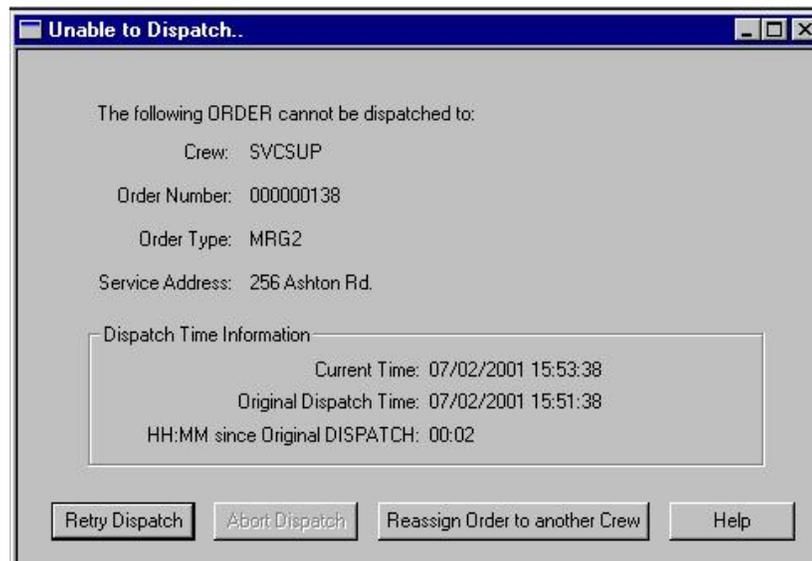
**Message Recipient:** This message is sent to the user that sent the mail message.

**Description:** This message is sent whenever the Server application is unable to deliver a mail message from a Dispatch User to a Mobile user. The message is sent if the receiving mobile user does not manually acknowledge an emergency mail message.

### Unable to Dispatch Field Order

**Message Type:** Specific message

**Message Text:**



**Message Recipient:** This message is sent to the user that dispatched the order.

**Description:** Unable to Dispatch Field Order uses a unique screen for displaying the order information. This message indicates the Server is unable to dispatch the order to the assigned crew within the set time period. This is usually due to the mobile being out of range or having a malfunctioning radio. The user can retry dispatching the order to the same crew by pressing the Retry Dispatch button or they can reassign to the order to another crew by pressing the Reassign

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Order to Another Crew button. If the order was being re-dispatched, Reassign button will be disabled and the Abort Dispatch button will be enabled. The user cannot reassign an order through this screen, if the order has already been dispatched to a crew. The user must use the Reassign function in the Field Order subsystem. The user can dismiss the screen without processing the order by pressing the 'X' in the top-right hand corner of the screen. The user can invoke the online help facility for this screen by pressing the Help button. See the Field Order subsystem in the Dispatch Workstation section of this document for more details on the dispatch and reassign functions.

### **Unable to Process Non-MDT Logon**

**Message Type:** System Message

**Message Text:**

Unable to process non-MDT Logon. Crew (9999) does not have an active shift.

Unable to process non-MDT Logon. Crew (9999) trying to logon to a DISABLED shift.

**Message Recipient:** This message is routed to all logged on Dispatch Workstation users that are monitoring the dispatch area that contains the crew attempting to log on.

**Description:** This System message is sent back to the Dispatch Workstation user whenever they attempt to logon a non-MDT Mobile Workstation user to an invalid shift.

### **Unable to Process RF Logon**

**Message Type:** System Message

**Message Text:**

Unable to process RF Logon. Crew (9999) does not have an active shift.

Unable to process RF Logon. Crew (9999) trying to logon to a DISABLED shift.

**Message Recipient:** This message is routed to all logged on Dispatch Workstation users that are monitoring the dispatch area that contains the crew attempting to log on.

**Description:** This System message is sent whenever a Mobile Workstation user attempts to log on to an invalid shift.

### **Uncovered Service Areas**

**Message Type:** System Message and User Notification

**Message Text:**

Uncovered Service Areas: 999, 999,..., 999

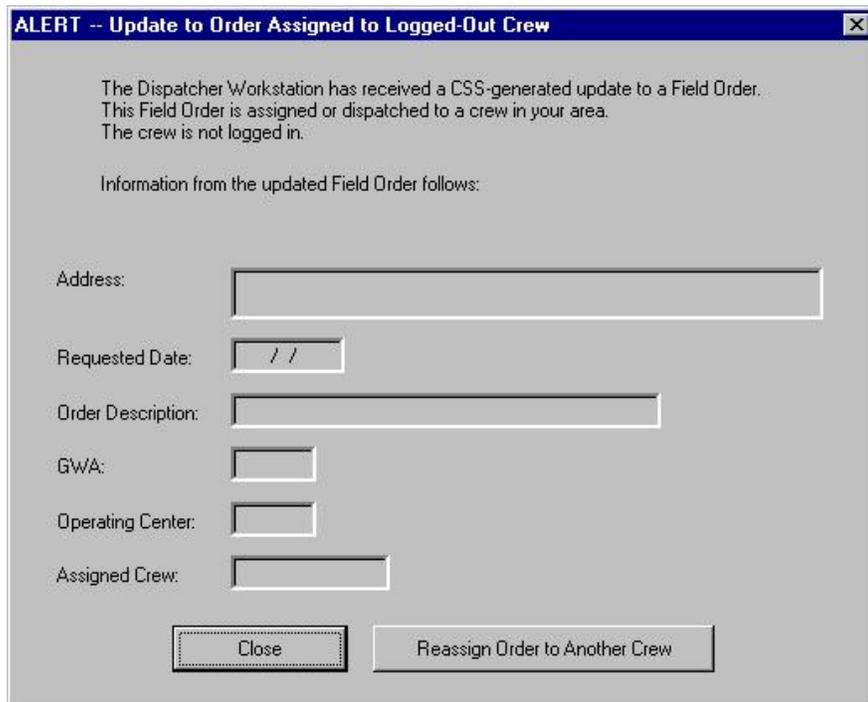
**Message Recipient:** The Uncovered Service Area Notification is sent to all logged on Dispatch Workstation users with an access level of DISPATCHER\_SUPERVISOR or DISPATCHER.

**Description:** The message will list which service areas are not currently being monitored by a Dispatch Workstation user with an access level of DISPATCHER. These warnings are only generated if the GenerateUncoveredServiceAreaWarnings parameter is TRUE. The message is also written to the System Messages subsystem.

### **Update to Order Assigned to Logged-Out Crew**

**Message Type:** Specific message

**Message Text:**



**Message Recipient:** This message is sent to the user that dispatched the order.

**Description:** The Update to Order Assigned to Logged-Out Crew message uses a unique screen for displaying the order information. Notification of an order being updated that is assigned/dispatched is sent to the user that dispatched the order. This message indicates an order that is assigned/dispatched to a crew that is not currently logged on has been updated from an external application. The user can reassign to the order to another crew by pressing the Reassign Order to Another Crew button. The user can dismiss the screen without processing the order by pressing the Close button or the 'X' in the top-right hand corner of the screen. See the Field Order subsystem in the Dispatch Workstation section of this document for more details on the reassign function. The notification is only sent if the FoStatusUpdateNotification DHTSVINI parameter is TRUE. Additionally, the notification is only sent for dispatched order if the FoStatusUpdateNotifyDispatched DHTSVINI parameter is TRUE