

Oracle Utilities Mobile Workforce Management

Mobile Workstation User's Guide

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Chapter 1

The Basics

This chapter covers the following topics:

- **Mobile Logon**
- **Mobile Workstation Desktop**
- **Control Menu Functions**
- **Mobile Logoff**
- **Session Timeout Interval**

Mobile Logon

Logon- Product Version 1.5.0.0

Oracle Utilities Mobile Workforce Management

Crews

User ID: Additional Users

Password:

Primary Function:

Shift Diff:

Vehicles

Vehicle ID 1: Support Vehicles

Odometer 1:

☐ Override Odometer?

Logon Method

☐ Radio ☒ LAN ☐ Offline

OK Close Clear Help

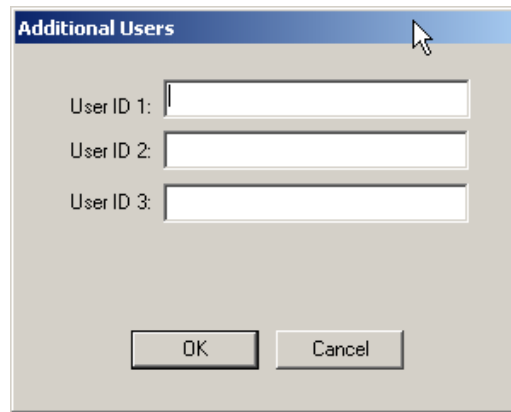
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Function/Process Description

The Mobile Workstation (MW) Logon function enables the user to log onto the Oracle Utilities Mobile Workforce Management Mobile 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.

When the user presses the Ok button, the system validates and sends the logon information to the Server. The Close button cancels the logon function and shuts down the Mobile Workstation application. The Clear button clears the data on the screen so the user can re-enter the data. The Help button invokes the online help facility.

Additional Users - The Additional Users button allows users to enter additional users associated with the crew logging on. When selected, the Additional Users screen is displayed.



Additional Users Id can be entered in the screen and then sent to the Server within the logon transaction. Support Vehicles

The Support Vehicle button allows users to enter support vehicle data associated with the crew logging on. When selected, the Support Vehicle screen is displayed. Refer to **Support Vehicles Screen** on page 7-180 for more information.

The Shift Diff combo box allows the user to select the shift for timesheet purposes. Please refer to **Time Sheet Summary** [on page 1-28](#) for further information.

Logon Processing

When the user selects the Ok button, the logon information is sent to the Server for validation and the Ok and Clear buttons are disabled. The Logon screen displays a progress bar while the logon information is sent to the Server for validation. The length of the progress bar is based on the value of the number of seconds to wait for logon reply (NumSecsForLogonReply) parameter in the Station.ini file. If the progress bar times out, the Ok button is re-enabled and the user can try sending the logon information again.

The Server validates that the user id/password are valid and is not currently logged on to an Oracle Utilities Mobile Workforce Management application. The user's access level must be either Service Representative or Service Supervisor. Only users with one of these two access levels can log onto the Mobile Workstation application. The Vehicle Id must be valid and not currently in use by another crew. The additional user Ids must be valid and not currently logged on. The Server generates a logon reply transaction and sends it back to the mobile. The transaction contains 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 Mobile Workstation desktop stating the reason for the logon failure. If the return code indicates the logon successful, the Mobile Workstation application completes the logon process.

If the user's password has expired, the user is required to change their password before they can continue. Refer to **Change Password** on page 1-17 for more information.

The reply transaction contains a list of the current version numbers of the validation/decode tables from the Server. The application compares the Server version numbers against its own version numbers. If any of the versions are different, the Mobile Workstation application creates transactions requesting the updated tables. Since the updated tables can affect processing in the Mobile Workstation application, the crew is 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 is dismissed when all requested tables have been received. If the tables have not been received within 300 seconds, the system displays a message stating that all tables were not downloaded and processing may be affected.

The reply transaction contains a count of the number of orders ready to dispatch to the crew. The crew will not be able to perform any processing until the orders to be dispatched have been received. The application will display the order download progress screen. The screen displays the number of orders to be dispatched and a current count of the orders received. The length of the progress bar is based on the number of orders to be dispatched. The progress screen is dismissed when all orders have been received. If the orders have not been received within x seconds where x is the value of the number of seconds to wait for initial order dispatch (NumSecsForOrderDownload) parameter under the WS_INI-DW section in the DHTMWINI file, a message stating that all orders were not received is displayed on the user's desktop.

If the additional Oracle Utilities Mobile Workforce Management AVL application is used, the GPS support module is started when the logon reply is received.

Finally, the appropriate subsystem screen is displayed. If the user's access level is Service Representative, the Field Order list is displayed. If the user's access level is Service Supervisor, the Crew Status list is displayed and the application will automatically send a transaction to the Server requesting the current status of the supervisor's crews. If the logged-on user has an access level of Service Representative, the Crew Status subsystem button will be disabled.

If the user is a Service Supervisor, a User Notification dialog will be displayed on the desktop to track the progress of loading various tables and the processing of the Crew Status request transaction.

User Access Levels - 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.

Menu Access

See the table below for the Mobile Workstation subsystems available for the Service Representative and Service Supervisor access level.

Menu Item	Service Representative	Service Supervisor
Field Orders	YES	YES
Crew Status	NO	YES
Mail	YES	YES
Resource Maintenance	NO	NO
System Messages	YES	YES
Batch Process	NO	NO
Table Maintenance	NO	NO
Dispatcher Functions	NO	NO
System Control	NO	NO
Reports	NO	NO
Routine Orders	NO	NO
Mapping	YES	YES

If the Communication Type of Offline is selected, the logon data will not be sent to the Server for validation and the Field Order subsystem will be started. The user will not be able to receive data from or send data to the Server. Any data that needs to be sent will be queued on the mobile device until the user logs on with a Communications Type of Wired or Wireless

Data Fields

Data fields are described below:

Field Name	Description
User ID	The Id of the primary user logging on.
Password	The password of the primary user logging on. As a security measure, the password will be displayed as asterisks when entered.
Logon Method (Radio/ LAN/ Offline)	Indicates the type of communications to be used to communicate with the Server. Radio indicates the communications will be through the radio system. LAN indicates the communications will be through the network using wireless IP. Offline indicates there will be no communications between the mobile device and the Server. The default is LAN.
Crew Primary Function	The primary function of the crew logging on. The list will be populated using the primary function table (DHTPFUNC). The field is shown when the UseCrewPrimaryFunction station.ini parameter is TRUE.
Shift Diff	Indicates the shift for timesheet purposes. Please refer to Time Sheet Summary on page 1-28 for further information.
User ID #	The id of the additional members in the crew. The number of available user id entry fields is determined by NumAdditionalUsers station.ini parameter.
Vehicle ID 1	The id of the vehicle the user is using. This field is initially populated with the vehicle id from the last logon. This value can be overridden
Odometer	The beginning odometer reading for the vehicle. This field is initially populated with the ending odometer from the last logoff. This value can be overridden.
Override	Indicates if the odometer reading should not be validated. This occurs when the previous ending odometer reading that was entered was incorrect.

Interfaces

The Mobile Workstation Logon data entered on this screen is sent to the Server in the RF Logon transaction. The Server will validate and process the data. The Server will generate a logon reply transaction and send it back to the Mobile Workstation. If any of the data is invalid, an error code will be returned to the Mobile Workstation in the RF Logon Reply transaction.

If the logon is successful, the logon data will be sent to the Router for routing to any external applications. The Server sends notification to all appropriate logged-on Dispatch Workstation (DW) users that the crew has logged on. The Server writes a message to the Audit list box and log stating that the user has logged on. The logon initiates the AVL processing for the vehicle.

If Offline is selected, there is no external interface during the logon process.

Validation

The crew must enter a User ID, password, vehicle ID, odometer reading, and communication type. The length of the User ID will be limited to 8 alphanumeric characters. If the odometer reading is less than the odometer reading from the last logoff, an error message is displayed on the screen. The user can override this validation by checking the override checkbox.

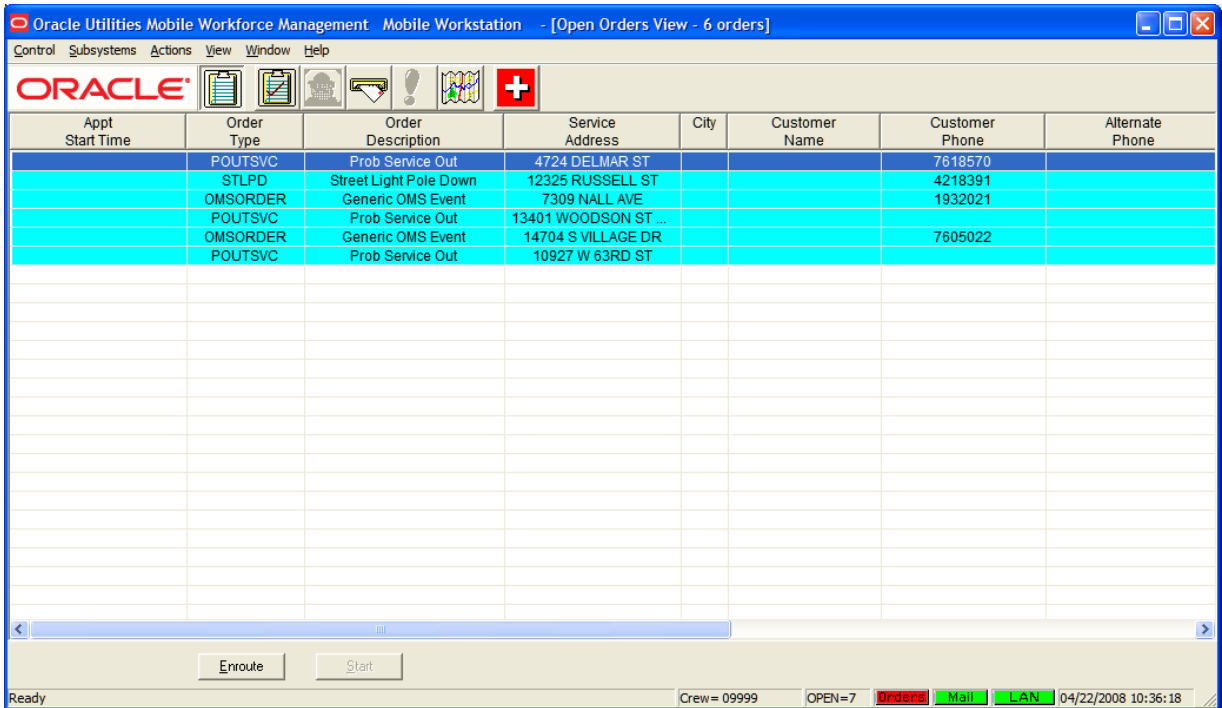
If Wired or Wireless, the Server validates the user id, password, and vehicle id. The user must be a valid user in the personnel table and cannot be currently logged on anywhere. The vehicle id must be a valid vehicle in the vehicle table and cannot be in use by another crew. If the personnel to crew association (PersonToCrewAssociation) parameter in the DHSVINI table are 'TRUE', the Server will validate that the primary user and the additional user are assigned to the same crew. The logged on user will be used to determine the crew id. If the vehicle to crew association (VehicleToCrewAssociation) parameter in the DHSVINI file is 'TRUE', the Server will validate that the vehicle is assigned to a crew. The vehicle will be used to determine the crew id. If both these parameters are 'TRUE', the users and vehicle MUST be assigned to the same crew.

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. The computer name and odometer reading will be stored in the Vehicle database table (DHTVEHCL).

Mobile Workstation Desktop

This section describes the functions and menus available from the Mobile Workstation desktop, shown below:



Function/Process Description

This window is the initial screen displayed to the user the first time they successfully log onto the Mobile Workstation application. The Field Order subsystem is automatically started and the open field order list is displayed if the logged on user's access level is Service Representative. The Crew Status subsystem is automatically started and the crew status list is displayed if the logged on user's access level is Service Supervisor. All Mobile Workstation windows/screens will be displayed in the Mobile 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 DHTMWINI configuration database table. The entries in the DHTMWINI 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:

Menu Option	Description
Save Desktop	The sub-menu items under this menu item are disabled. They are not used for the mobile version of the station application.

Menu Option	Description
Use Number Pad	This menu item is always enabled if the allow use of the number pad (UseNumberPad) parameter in the Station.ini file is 'TRUE'. If the parameter is 'FALSE', this menu item is always disabled. This menu item is used to turn on/off the onscreen number pad when the cursor is in a numeric field. If a checkmark appears next to the Use Number Pad menu item, the number pad is currently turned on; otherwise, the number pad is off. Refer to Use Number Pad on page 1-10 for more information.
Change Primary Function	When selected, the Change Primary Function screen is displayed. Refer to Change Primary Function Screen on page 1-11.
Timed Event	This menu item is always enabled. When selected, the Timed Event screen is displayed. Refer to Timed Event on page 1-12.
Out of Service	This menu item is always enabled. When selected, the Out of Service screen is displayed. Refer to Out Of Service on page 1-14.
Emergency Request	This menu item is always enabled. When selected, the Emergency Request screen is displayed. Refer to Emergency Assistance Request on page 1-16.
Change Password	This menu item is always enabled. When selected, the Change Password screen is displayed. Refer to Change Password on page 1-17.
Select Comms Network	This menu item contains a sub-menu of available communication networks. The sub-menu items are Wired and Wireless . The current communications network is displayed in the Mobile Workstation status bar. When the user selects another communications network, a transaction is sent to the transport application to change the communications network used to communicate with this mobile. While the Communications change is being processed, a Communications Change status dialog is displayed on the user's desktop. The dialog will remain on the screen until confirmation that the communications has been successfully changed or the transaction has timed out. The time out value is specified in the number of seconds to wait for the communication change (NumSecsForCommsChange) parameter in the Station.ini file. If confirmation of the communications change is received, the dialog message 'Communications changed successfully. Press OK to continue' is displayed. If confirmation of the communications change is not received, the dialog message 'Acknowledge not received from Comms. Press OK to return' is displayed. The text in the Communications Indicator on the status bar is changed to reflect the new communications network.
WAM Time Sheet	This menu item is enabled or disabled based on the menu access parameter in the DHTMWINI file. When selected, the Crew Time Sheet screen is displayed. Refer to Crew Time Sheet on page 1-19 .
Logoff	Refer to Mobile Logoff on page 1-26.

Subsystems Menu

The **S**ubsystems menu contains a sub-menu item for each Mobile Workstation subsystem. The Mobile Workstation subsystems are:

- **F**ield Order (**O**pen Orders and **W**orked Orders)
- **C**rew Status
- **M**ail
- **M**apping

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

Windows Menu

The **W**indows menu 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 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 Mobile 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.

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, Crew ID, Open order count, New orders indicator, New Mail indicator, Communications indicator, and system date/time.

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.
Crew ID	This section displays the id of the crew logged on. The crew id is not necessarily the same as the logged on user's id.
Open Orders Count	This section displays a count of the open orders in the user's field order list.
New Order indicator	<p>This visual indicator communicates the receipt of new field orders. The color of the button indicates the priority of the field order received.</p> <ul style="list-style-type: none">• green indicates the user has received no new field orders,• yellow indicates the user has received new regular field orders, and• red indicates the user has received new emergency field orders. <p>Clicking on the indicator will reset the color to green and bring the Open Orders field order list to the foreground.</p>

Status Bar Item	Description
New 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">• green indicates the user has no unread mail messages,• yellow indicates the user has regular unread mail messages, and• red indicates the user has emergency unread mail messages. <p>Clicking on the indicator will reset the color to green and bring the mail list to the foreground.</p>
Communications Indicator	<p>This visual indicator communicates the status of mobile communications. If AVL is enabled, the LAN indicator displays RED if the mobile has gone out of range or lost its connection to the Server.</p>
System Date/Time	<p>This section displays the current system date/time on the mobile computer.</p>

Data Fields

None

Interfaces

None

Validation

None

Data Updates

None

Control Menu Functions

Use Number Pad



Function/Process Description

The Use Number Pad function allows the user to toggle the Number Pad option on/off. This function is accessed via the Use Number Pad menu item under the Control menu. If the Number Pad is currently in use, a checkmark will appear next to the text in the menu item. The Use Number Pad menu item can be disabled permanently by setting the allow use of the number pad (UseNumberPad) parameter in the Station.ini file to 'FALSE'.

When the Number Pad is in use, the Number Pad screen will appear whenever the cursor is in a field that expects numerical input. The field name will appear in the title of the number pad screen. Using the Number Pad the user can enter the correct numerical value, including a decimal point. The number pad is especially effective when the mobile uses a touch screen, however the numbers can still be entered via a keyboard.

When the correct value has been entered, the user presses the Enter button to accept the entry. The Back button is used to erase one digit and the Clear button will erase the entire value.

Data Fields

The number field will display the number currently entered. The buttons on the screen represent a standard calculator.

Interfaces

None

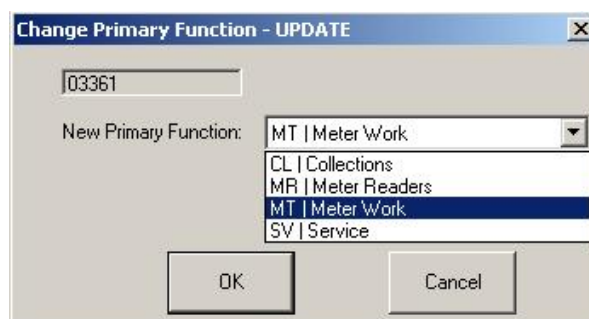
Validation

None

Data Updates

None

Change Primary Function Screen



Function/Process Description

Primary function is used by the Oracle Utilities Mobile Workforce Management scheduling module to assign orders to the appropriate crews. When you change a crew's primary function, the scheduler will assign different types of orders to the crew based on their new primary function.

The Change Primary Function screen is displayed when the user selects the Change Primary Function menu item under the Control menu. This screen is also displayed when a mobile supervisor selects the Change Primary Function menu item on the Crew Status subsystem Action menu.

- If accessed from the Control menu, this screen allows the user to change their own primary function.
- If accessed by the mobile supervisor from the Crew Status subsystem Action menu, this screen allows the supervisor to change the primary function for the selected crew.

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 Mobile Workstation application sends an RF Logon Update transaction containing the new primary function to the Server for processing.

Validation

The user must select a new primary function.

Data Updates

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

Timed Event

Timed Event

Duration of Timed Event in Minutes:

Password:

Timed Event Until

Start

Cancel

Help

This function enables a Mobile Workstation to start a timed event. This function is accessed via the Timed Event menu item under the Control menu. A Mobile Workstation user starts a timed event when they want to notify their dispatcher that they will be unavailable for a specified period of time. Notification is sent to the Server indicating the crew has started a timed event. Notification is sent to the appropriate logged on Dispatch Workstation users that the crew has started a timed event.

While the crew has started a timed event, Mobile Workstation is effectively ‘locked up’. The application can still receive orders and acknowledge orders, but no other mobile functions can be performed until the crew stops the timed event. However, it is not wise to dispatch an emergency order to a crew that has started a timed event, since they are probably not in the vehicle to acknowledge the order.

Before a Mobile Workstation user starts a timed event, the Cancel button is displayed. Once a timed event is started, a Stop button replaces the Cancel button. From here on, the user must enter their password to stop the timed event. When the crew stops the timed event, notification is sent to the Server indicating the crew has stopped the timed event. Notification is sent to the appropriate logged on Dispatch Workstation users that the crew has stopped the timed event. The timed event screen is dismissed and the previous screen is displayed.

The difference between Timed Event and Out of Service is that the timed event is used when the crew wants the dispatcher to be notified if they don’t stop the timed event before it expires. This would be used when a crew is working in a dangerous situation (e.g. working on a pole, working in a dangerous area, etc.). If the timed event expires before the crew stops it, the Server will notify the appropriate logged on Dispatch Workstation users that the crew’s timed event has expired without being stopped.

Data Fields

Data fields are described below:

Field Name	Description
Duration of Timed Event	The number of minutes the crew expects the timed event o last.
Password	The user’s password. The field is required for the crew to stop the timed event.
Timed Event until	The time the crew expects the event to timeout, calculated as current time + minutes.

Interfaces

When the user starts a timed event, a Start Timed Event transaction is generated and sent to the Server for processing. The Server will start the timed event. The Server will send notification to all appropriate Dispatch Workstation users.

Mobile Workstation is effectively 'locked' up until the user stops the timed event. When the user stops the timed event, a Stop Timed Event transaction is generated and sent to the Server for processing. The Server will send notification to all appropriate Dispatch Workstation users.

The Server will send notification to all appropriate Dispatch Workstation users if the crew fails to stop the timed event before it times out.

Validation

The user must enter the number of minutes for the timed event. The user must enter password to stop the timed event. The password must be the same password used at logon.

Data Updates

None

Out Of Service

Function/Process Description

This function enables a Mobile Workstation user to go out of service. This function is accessed via the Out of Service menu item under the Control menu. A Mobile Workstation user goes out of service when they will be unavailable to work orders for some length of time. Notification is sent to the Server indicating the crew is out of service. The notification will include the location where the crew is out of service and the estimated time the crew will return to service. The crew in the crew status list on the Dispatch Workstation application will be updated to Out of Service.

While the crew is out of service, the Mobile Workstation application is effectively 'locked up'. The application can still receive orders and acknowledge orders, but no other mobile functions can be performed until the crew returns to service. However, it is not wise to dispatch an emergency order to a crew that is out of service, since they are probably not in the vehicle to acknowledge the order.

The user must enter their password to return to service. When the crew returns to service, notification is sent to the Server indicating the crew has returned to service. The out of service screen is dismissed and the previous screen is displayed.

Data Fields

Data fields are described below:

Field Name	Description
Reason	The reason the crew is going out of service. This list is populated with the available out of service reasons from the reason validation table (DHTREASN) with a type of 'B'.
Other Reason	Other Reason text that further describes the reason for out of service.
Minutes	The number of minutes the crew expects to be out of service.
Location	The location where the crew is going to be while out of service.
Password	The user's password. The field is required for the crew to return to service.

Field Name	Description
On break until	The time the crew expects to return to service. This value is calculated as current time + minutes.

Interfaces

When the user goes 'out of service', an Out of Service transaction is generated and sent to the Server for processing. The Server will update the database tables. The Server will send notification to all appropriate Dispatch Workstation users. The Server writes a message to the Audit list box and log stating that the crew has gone out of service.

The Mobile Workstation application is effectively 'locked' up until the user returns to service. When the user returns to service, a Return to Service transaction is generated and sent to the Server for processing. The Return to Service is a guaranteed transaction. It will continue to send to the Server until it is processed. The Server will update the database tables. The Server will send notification to all appropriate Dispatch Workstation users. The Server writes a message to the Audit list box and log stating that the crew has returned to service.

Validation

The user must enter the number of minutes the crew is estimated to be out of service and a location. If 'Other' is selected as the reason for being out of service, the user must enter Other Reason text; otherwise, Other Reason is optional. The user must enter password to return to service. The password must be the same password used at logon.

Data Updates

When the Out of Service transaction is received, the Server will update the out of service database table (DHTBREAK) with the reason, location, and estimated duration. The crew in the crew database table (DHTCREW) will be updated to indicate that the crew is out of service.

Then the Return to Service transaction is received, the Server will update the out of service database table (DHTBREAK) with the actual duration the crew was out of service. The crew in the crew database table (DHTCREW) will be updated to indicate that the crew has returned to service.

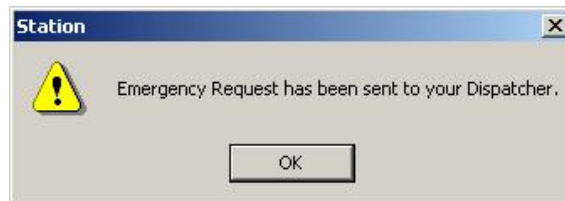
Emergency Assistance Request

Function/Process Description

The Emergency Assistance Request is initiated by pressing the “Emergency Request” button on the Mobile Workstation toolbar or by selecting the “Emergency Request” menu item under the Control menu. When initiated, a message is displayed on the screen asking if the user wants to send an emergency assistance request to the Dispatcher:



If the user presses Ok, the Emergency Assistance Request is sent to the Server. A confirmation message is displayed on the user's desktop:



Data Fields

None

Interfaces

The emergency assistance request transaction will be sent to the Server. The Server will send notification of the emergency request to the Dispatch Workstation (DW) users. The Server writes a message to the Audit list box and log stating that the crew has requested emergency assistance.

Validation

None

Data Updates

The emergency assistance request time will be stored in the Emergency Request database table (DHATERQST).

Change Password



A screenshot of a 'Password Change' dialog box. The title bar is blue with the text 'Password Change'. The main area has a light gray background. It contains the following text: 'Please enter your current password followed by your new password. Re-enter your new password for verification.' Below this text are three input fields, each preceded by a label: 'Current Password:', 'New Password:', and 'Verify New Password:'. Each input field contains six 'x' characters. At the bottom of the dialog are three buttons: 'OK', 'Cancel', and 'Help'.

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 Mobile 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 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

The change password request transaction will be sent to the Server. The Server will validate the change password request and send a reply back to the Mobile Workstation. If the password change is successful, the dialog is dismissed. If the password change is unsuccessful and the password change was optional, the dialog is dismissed. 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 5 and 8 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 Server application will update the appropriate record in the Personnel database table with the new password and the date/time the password was changed. A new record will be inserted into the Password History database table and the oldest record in the table will be deleted.

Crew Time Sheet

Function/Process Description

The Crew Time Sheet function allows the user to enter their time sheet information and send it to an external application (if integration with this application has been set up in advance).

Crew Time Sheet

Employee ID	Work Order Num	Task Num	Field Order Num	Date	Reg Hour
FieldTech	0800499	01	000000000000023710	07/31/2008	5.00

Time Keeping

Date: 8/1/2008 Employee: Task: Plant: ☐ WAM Order

WD Number: Common Order Id: Field Order Number:

Shift: Type: Hours:

Reg: Prem:

Buttons: Add New Entry, Edit Selected Entry, Delete Selected Entry, Save Entry, Cancel Save, Copy Selected, Save and Exit, Cancel, Send Time Sheet Now

Time sheets are not sent until the user clicks the Send Time Sheet Now button. The user can edit and send time sheets multiple times if desired.

Note: This function applies only if the Oracle Utilities Work and Asset Management system is integrated with an external application that accepts and processes this information. See the Oracle Utilities Mobile Workforce Management Installation Guide and the appropriate integration implementation guide for more information about the integration.

The Crew Time Sheet screen is displayed when the user performs any of the following actions:

- Selecting the WAM Time Sheet menu item on the Control menu
- Selecting the Add To WAM Time Sheet menu item on the Actions menu of the Field Order subsystem or on the pop-up menu that accessed by right clicking on an order in the list
- Selecting the Crew Time button on one of the WAM field order screens (WAM Main Detail, WAM Task Notes, WAM Planned Materials, WAM Direct Charges, or WAM Stock Charges)

- Logging off at end of shift if WAM timesheet entries were entered for the shift. The Crew Time Sheet screen is displayed automatically when the crew logs off at end of shift only if entries were created for Oracle Utilities Mobile Workforce Management (WAM) work orders; otherwise, the screen is not displayed.

If this screen is accessed from the Add To WAM Time Sheet menu item or the Crew Time button, the appropriate fields in the Time Keeping section are pre-populated. The Date defaults to the current date. The WO Number, Task, Plant, and Field Order Number fields are populated using data from the field order (if supported by the integration).

The list portion of the screen displays all existing time sheet entries for the current day/shift.

To add a new entry, click the Add New Entry button, then complete all required fields and click Save Entry.

To edit an existing entry, select the entry from the list and click Edit Selected Entry.

To delete entries, select one or more entries from the list and click Delete Selected Entry. A confirmation dialog is displayed.

To copy existing entries and assign them to another employee, refer to the next section.

To send all time sheet entries to the Server for processing, click Send Time Sheet Now.

Copy Selected Time Entries Screen

This function allows the mobile user to copy selected time sheet entries and assign them to another employee.

To copy time sheet entries:

1. Select one or more entries from the list of entries displayed on the Crew Time Sheet screen.



2. Click the Copy Selected button. The Copy Selected Time Sheet Entries screen is displayed. (At least one time sheet entry must be selected in the list in order to invoke this function.)
3. Select the employee to whom the entries should be copied. The Employee field contains the employee number that the selected entries will be assigned. This list is populated from the available values in the DHTWAMEMPL table. This is a required entry.
4. Click OK. The pre-selected time entries are copied and assigned to the selected employee. The user is returned to the Crew Time Sheet screen. The Time Entries list is updated with the new entries.

Data Fields (Crew Time Sheet)

Field Name	Description
Time Entries List	This list contains a row for each time sheet entry. This list should allow single and multiple rows to be selected. A maximum of 256 rows can be selected at any one time.
Employee ID	The id of the employee that performed the work.
Work Order Num	The work order number associated with the work.
Field Order Num	The field order number associated with the work.
Date	The date the work was performed.
Reg Hours	The number of regular hours expended in performing the work
Prem Hours	The number of premium hours expended in performing the work
Reg. Shift	The shift differential associated with the regular hours expended in performing the work
Prem. Shift	The shift differential associated with the premium hours expended in performing the work
Reg. Type	The labor earnings type associated with the regular hours expended in performing the work
Prem Type	The labor earnings type associated with the premium hours expended in performing the work
Time Keeping	Information associated with a single time sheet entry. In browse mode, all entries in this section are read-only or disabled.
Date	The date for this time entry. This field defaults to today's date when adding a new entry or when the Crew Time Sheet screen is accessed from the field order completion screen or field order list; otherwise, it displays the value from the selected row in the Time Entries list. This is a required entry.
Employee	The employee number for this time entry. This field defaults to empty when adding a new entry or when the Crew Time Sheet screen is accessed from the field order completion screen or field order list; otherwise, it displays the value from the selected row in the Time Entries list. This drop-down list is populated from the available values in the DHTWAMEMPL table. This is a required entry.
WO Number	The work order number for this time entry. This field defaults to empty when adding a new entry. If the Crew Time Sheet screen is accessed from the field order completion screen or the field order list, this field is pre-populated with data from the field order (if supported by the integration); otherwise, it displays the value from the selected row in the Time Entries list. This is a required entry.

Field Name	Description
Task	The work order task number for this time entry. The Task field defaults to empty when adding a new entry. If the Crew Time Sheet screen is accessed from the field order completion screen or the field order list, the Task field is pre-populated with data passed in from the field order (if supported by the integration); otherwise, it displays the value from the selected row in the Time Entries list. This is a required entry.
Plant	The plant for this time entry. The Plant field defaults to empty when adding a new entry. If the Crew Time Sheet screen is accessed from the field order completion screen or the field order list, the Plant field is pre-populated with data from the field order; otherwise, it displays the value from the selected row in the Time Entries list. This is a required entry.
Field Order Number	The field order number for this time entry. This field defaults to empty when adding a new entry. If the Crew Time Sheet screen is accessed from the field order completion screen or the field order list, this field is pre-populated with data from the field order; otherwise, it displays the value from the selected row in the Time Entries list. This is a required entry.
Reg	Data associated with the regular hours. If data is entered in one of the following three fields, data must be entered in all three fields. Either regular data, premium data, or both must be entered. One set of shift/type/hours data is required.
Shift	The shift differential associated with the regular hours for this time entry. This field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Time Entries list. This drop-down list is populated from the available values in the DHTWAMSHIFTDIFF table.
Type	The labor earnings type associated with the regular hours for this time entry. This field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Time Entries list. This drop-down list is populated from the available values in the DHTWAMREGEARN table.
Hours	The regular hours for this time entry. This field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Time Entries list. This drop-down list is populated with a set of hard-coded values from .5 to 15.5 in .25 increments (format: nn.nn).
Prem	Data associated with the premium hours. If data is entered in one of the following three fields, data must be entered in all three fields. Either regular data, premium data, or both must be entered. One set of shift/type/hours data is required.
Shift	The shift differential associated with the premium hours for this time entry. This field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Time Entries list. This drop-down list is populated from the available values in the DHTWAMSHIFTDIFF table.
Type	The labor earnings type associated with the premium hours for this time entry. This field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Time Entries list. This drop-down list is populated from the available values in the DHTWAMPREMEARN table.

Field Name	Description
Hours	The premium hours for this time entry. This field defaults to empty when adding a new entry; otherwise, it displays the value from the selected row in the Time Entries list. This drop-down list is populated with a set of hard-coded values from .5 to 15.5 in .25 increments (format: nn.nn).

Note: The WAM Time Sheet record also contains a Craft field, which is required by Oracle Utilities Work and Asset Management for time sheet processing. This field is hard-coded with the value “ADMIN.”

Buttons (Crew Time Sheet)

Button Name	Button Description
Add New Entry	Adds a new time sheet entry. This button is disabled in browse mode; otherwise, it is always enabled. When this button is selected, all fields in the Time Keeping section are cleared and the date is reset to today's date. Also, all buttons in the Time Keeping section are disabled, except the Save Entry button and Cancel Save button.
Edit Selected Entry	Allows the user to edit the entry selected in the Time Sheet list. This button is disabled in browse mode; otherwise, it is enabled when a single entry is highlighted in the Time Sheet Entries list. When this button is selected, the Time Keeping fields are populated with the data from the selected row and all buttons in the Time Keeping section are disabled, except the Save Entry button and Cancel Save button.
Delete Selected Entries	Deletes all entries selected in the Time Sheet list. This button is disabled in browse mode; otherwise, it is enabled when one or more entries are highlighted in the Time Sheet Entries list. When this button is selected, the user is prompted to confirm the deletion.
Copy Selected	Copies the entries selected in the Time Sheet list. This button is disabled in browse mode; otherwise, it is enabled when a single entry or multiple entries are highlighted in the Time Sheet Entries list. When this button is selected, the Copy Selected Time Entries screen is displayed for the user to select an employee. When the user selects the OK button on the Copy Selected Time Entries screen, the selected entries are copied and assigned to the new employee.
Save Entry	Saves the time sheet entry being added or edited. This button is always disabled, except when an adding or editing an entry. When this button is selected, all data in the Time Keeping section is validated. If valid, the data is saved and the Time Keeping buttons are re-enabled.
Cancel Save	Cancels the entry without saving. This button is always disabled, except when adding or editing an entry. When this button is selected, the add or edit operation is canceled. The fields in the Time Keeping section are cleared and the Time Keeping buttons are re-enabled.

Button Name	Button Description
Send Time Sheet Now	Sends the time sheet to the Server to be forwarded to Oracle Utilities Work and Asset Management. This button is always enabled. When this button is selected, the time sheet is saved to a file on the hard drive whose name is referenced by the crew name AND the time sheet ICD is generated and sent to the Server for processing. The time sheet file is not destroyed; the time sheet can be edited again by the crew and resent if necessary.
Save	Saves the entire time sheet (all time sheet entries). This button is always enabled. When this button is selected, the time sheet is saved into a file on the hard drive whose name is referenced by the crew name. Note that the time sheet ICD is not generated so no time sheet data is sent to the Server for processing. The crew can edit this time sheet again.
Cancel	Cancels any work done since the last time Save or Send Time Sheet Now was selected. When this is selected, the dialog is dismissed and no data is saved.

Interfaces

When the user clicks the Send Time Sheet Now button, the time sheet data is sent from the Mobile Workstation application to the Server application. The Server updates the appropriate database tables and forwards the ICD to the Router for further processing. The Router routes it to the Oracle Utilities Work and Asset Management application based on the transaction processing tables.

Validation

The maximum length of the fields is equal to the length of the database column, except for the field order number. The maximum length of the field order number is specified by the GeneratedFoNumberLength Server parameter (DHTSVINI).

The following fields are required for a valid Time Sheet entry. These fields are in the Time Keeping section of the screen.

- Entry Date
- Employee Number
- Work Order Number
- Work Order Task Number
- Plant
- Field Order Number
- Regular or Premium shift/type/hours. Both sets of data (regular and premium) can be entered, but at least one or the other set is required.

When ever the Save button or the Send Time Sheet Now button is selected, each entry in the Time Entries list is validated to ensure that all required fields are present. If the list is valid, the time sheet data is saved to the time sheet file and written to the hard drive.

Data Updates

DHTWAM_TIMESHEET_HDR_WAM stores header data pertaining to the WAM time sheet. The header data includes the date, employee ID, and crew ID.

DHTWAM_TIMESHEET_ENTRIES stores time sheet entries pertaining to the WAM time sheet. Each time sheet entry is associated with one time sheet header; a time sheet header may have many time sheet entries.

The time sheet file is also written to the mobile user's hard drive as a physical file whose name references the current crew logged on (TS_crewed.txt). When the Crew Time Sheet screen is initially displayed, the application looks for this file in the Mobile Workstation run-time directory. If the file is found, the Time Sheet Entries list is populated using the data contained in this file. If the file is not found, the list is empty. The file on the hard drive is updated every time the user presses the Save button (not the Save Entry button) or the Send Time Sheet Now button. This file is automatically deleted when the crew logs off end of shift.

Mobile Logoff

The screenshot shows a 'Logoff' dialog box with a blue title bar. It contains two text input fields: 'Beginning Odometer' with the value '14496' and 'Ending Odometer' with the value '14552'. Below these are two checkboxes: 'Override?' (unchecked) and 'End of shift?' (checked). A progress bar labeled 'Sending Pending Completions' is shown below the checkboxes. At the bottom, a message states 'All completion information has not been sent!'. There are 'OK' and 'Cancel' buttons at the very bottom.

Function/Process Description

This Logoff function enables the Mobile Workstation user to discontinue the execution of field orders and log off the Oracle Utilities Mobile Workforce Management Mobile Workstation application. This function is accessible by selecting the Logoff menu item under the Control menu or click on the window exit (X in the top right hand of the window).

The user completes this screen and presses the Ok button, the system validates the entered data and processes the logoff.

If the End of Shift checkbox is checked, the Time Sheet Summary screen is displayed before the logoff data is sent to the Server. If the user has created any time sheet entries for Oracle Utilities Work and Asset Management (WAM) orders for this shift, the Crew Time Sheet screen is also displayed before logoff data is sent to the Server.

Once the Mobile Workstation application has sent the logoff information, the Logon screen is displayed.

If the End of Shift check box is checked, the Server must successfully process all worked orders before the logoff information is sent. If the crew has worked orders that have not been successfully processed by the Server, a message stating 'All completion information has not been sent' is displayed on the Logoff screen. If the user still desires to logoff, the application will not send the Logoff transaction to the Server until the Server has processed all completions. The progress bar on the logoff screen tracks the progress of the completions being sent to the Server. The length of the progress bar is based on the number of completions that still need to be processed. When all completions have been successfully sent to the Server, the logoff process is completed and the logoff transaction is sent. There is no timeout, so this screen remains on the desktop until the completions have been sent. All worked orders are deleted from the mobile unit. All mail messages and inquiry data is deleted from the mobile unit. All open orders are deleted from the mobile unit. The Server automatically unassigns all open orders currently assigned to the Crew.

The logoff process removes the crew/vehicle from the Dispatch Workstation mapping function (AVL).

Data Fields

Data fields are described below:

Field Name	Description
Beginning Odometer	The beginning odometer reading. This field is pre-filled with the odometer entered when the Mobile Workstation was logged on. This value can be modified.
Ending Odometer	The current odometer reading on the vehicle.
Override	Indicates if the ending odometer reading should not be validated.
End of shift	Indicates the crew is logged off at the end of their shift. This will cause clean up to be done on the mobile.
Progress Bar	Progress bar to track the progress of completions being sent and processed by the Server
Completion status message	This message is displayed if there are unprocessed completions on the mobile at the time of logoff

Buttons

Button Name	Button Description
OK	The system validates the entered data and processes the logoff.
Cancel	Cancels the logoff function and displays the previous screen.

Interfaces

The Mobile Logoff data entered on this screen is sent to the Server. Notification that the crew has logged off is sent to the appropriate logged-on Dispatch Workstation users and the Router. The Server writes a message to the Audit list box and log stating that the crew has logged off. The logoff terminates the AVL processing for the vehicle.

If the end of shift flag in the logoff data is 'TRUE', the Server unassigns all orders that are assigned to the crew. A field order status transaction for each updated field order is sent to the appropriate logged-on Dispatch Workstation users and the Router. The Server generates a mail message stating that the crew logged off end of shift. The mail message contains a list of the field orders that have been unassigned. The mail message is sent to the appropriate logged-on Dispatch Workstation users.

If the end of shift flag is set to TRUE, the Mobile Workstation application deletes all orders and mail messages from the device. In addition, the timesheet files associated with the shift are deleted.

Validation

The Ending Odometer reading must be greater than the Beginning Odometer reading if the Override checkbox is unchecked.

Data Updates

The sign off time will be stored in the Personnel database table (DHTPERS) for the primary user and, if needed, the additional user. The records for the primary user and, if needed, the additional user will be deleted from the Logon database table (DHTLOGON). The odometer reading will be

stored in the Vehicle database table (DHTVEHCL). Based on the value of the End of Shift flag in the logoff data, the Server might automatically unassign all open orders assigned to the crew.

Time Sheet Summary

The Time Sheet Summary function displays the user's time in a summary format. The Time Sheet Summary screen is automatically displayed when the user selects end of shift at logoff.

Note: This function does not display time sheet information entered for Oracle Utilities Work and Asset Management (WAM) orders. Refer to **Crew Time Sheet** [on page 1-19](#) for WAM timekeeping details.

Time Sheet Summary

User Id: 73857 Date: 02/25/05 Friday Resp Center: Total Miles: 22

Work Code	Pay Class	Muni Code	Corp Code	Other Comments	Hours	Counts
	R				0.4	2
ADMINOPERE	R	AL	010	added through gui	5.4	3
ADMINOPERG	R	BN	070	added for deletion	2.3	1
CNDISCOFFJ	R	AL	030	Another record added through gui	4.3	2

Shift Differential: 0 Meal Allowance: 0

Hours and Collections Information

Tot Reg: 12.4 Total T1/2: 0.0 Total 2T: 0.0 Total Hours: 12.4

Total Cash: 0.00 Total Checks/M.O.: 0.00 Total Amt: 0.00

Add Entry Modify Entry Delete Entry Send

Function/Process Description

The Time Sheet function allows users to accurately fill out their manual time sheet. The entries are displayed alphabetically by type.

All time associated to working orders is accumulated by order type, and a single total is displayed for each order type worked. In addition, to the total time, a count of the orders of each type is displayed.

Each out of service entry displays separately on the Time Sheet Summary; these entries are not totaled together.

The screen also displays any collection payments that were taken during the user's shift. Total cash received and total checks received are displayed. Additionally, a count of the number of checks received is displayed adjacent to the total check amount.

The Time Sheet Summary displays the total miles driven during the user's shift. This is calculated by subtracting the beginning odometer reading from the ending odometer reading.

The crew may add, modify, and delete line items through the screens accessed by the Add, Modify, and Delete buttons at the bottom of the screen. These bring up the following dialogs:

When the Time Sheet Summary screen is closed, the Mobile Workstation transmits the time information to the server and closes the Mobile Workstation session.

Data Fields

Data fields on the Time Sheet Summary screen are described below:

Field Name	Description
Resp Center	Responsibility Center
Work Code	Work code from table DHTWKSKL, related to skill.
Pay Class	The type of pay, such as “R” (regular), “O” (halt pay), “D” (double pay)
Muni Code	The state and city/county, in the form of XX-YY, where XX is state and YY is city/county.
Corp Code	Code that further classifies the time sheet entry.
Time Entry List	This list box displays the time entries in alphabetical sequence. All entries with the same order type are totaled and a summary line shows the total time and count of orders. Each out of service entry is listed individually.
Total Miles	The total miles driven during the user’s shift.
Total Cash Collected	Total amount of cash collected during the user’s shift.
Total Checks Collected	Total amount of checks collected during the user’s shift.
Num Checks	The count of checks received during the user’s shift.

Interfaces

The Time Entry data collected during the user’s shift is sent to the Server when this screen is closed. The Server stores the time entry data in the database. The Time Entry data can be used for reporting purposes later if desired. This information is not sent to any external application for

additional processing, but is accessible for viewing and printing through the Timesheet application on the Dispatch Workstation. (For information about time sheet entries sent to the Oracle Utilities Work and Asset Management system, see **Crew Time Sheet** [on page 1-19.](#))

Validation

None

Data Updates

The time entry data is stored in the Time Entry database table (DHTTMCRW) and Time Entry line item table (DHTTMSHT) for the crew logging off.

Session Timeout Interval



Function/Process Description

The user session expires if the application is idle for a specified amount of time. The user is locked out of the application until the password is entered.

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 user is not logged off of the server, but the application will be locked until the user enters the correct password.

Validation

The user must enter 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.

Chapter 2

Field Order Subsystem

This chapter describes the Field Order subsystem, which is used for processing field orders. It includes the following topics:

- **Field Order Subsystem Menus**
- **Field Order List**
- **Field Order Screens Shared with Dispatch Workstation**
- **Field Order Enroute Screen**
- **Field Order Safety Check Screen**
- **Add Field Order**
- **Arrange Route**
- **Return Field Orders**
- **External Inquiry Request**
- **External Inquiry Data**

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. The determination of whether a sub-menu item is enabled/disabled is usually based on data in the selected field order and on the menu access parameters defined in the DHTMWINI table. The entries in the DHTMWINI 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:

Add...

This menu item is disabled if the disable add field order `Disable_Add` (DHTMWINI) parameter is 'Yes'; otherwise, this menu item is always enabled. When selected, the Add Order screen is displayed. Refer to **Add Field Order** on page 2-16.

Arrange Route...

This menu item is used to manually re-sequence a crew's orders. When selected, the Arrange Route screen is displayed. Refer to **Arrange Route** on page 2-19.

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 7-187.

Call First

Call First is used to send a call first mail message to the dispatchers monitoring this crew when a single field order is selected. The selected field order is the order highlighted in the field order list or the order being displayed in the field order screens. The call first mail message will contain the following field order information: order number, customer name, service phone number, contact phone number, service address, and order type. When the menu item is selected, the call first mail message is generated and sent to the Server. A message stating that the call first transaction has been sent is displayed in a user notification screen.

Add Pick-Up Order

Add Pick-up order is used to create a field order in the field from scratch. When selected, the Add Field Order screen is displayed. Refer to **Add Field Order** on page 2-16.

Return Field Orders

Return Field Orders is used to return field orders to the dispatcher that the crew will not be able to work. This menu item is enabled if the allow crew to return field orders to dispatcher EnableReturnOrders parameter in the DHTMWINI table is 'TRUE' and the mobile has open orders. If the parameter is 'FALSE' or the mobile has no open orders, this menu item is disabled.

If there are orders in the list, but none of them is eligible to be returned (e.g. status not equal to Enroute or Onsite), the following message is displayed and the user is not be able to access the Return Field Orders screen.

When this option is selected and there are orders in the list, the Return Field Orders screen is displayed. Refer to **Return Field Orders** on page 2-21.

External Inquiry Request

External Inquiry Request is used to request data from an external application. This menu item is enabled if "allow crew to request external inquiry data" (EnableExternalInquiry) parameter in the file DHTMWINI.TBL file and section "Common Info" is 'TRUE'. If the parameter is 'FALSE', this menu item is disabled. When selected, the External Inquiry Request screen is displayed. Refer to **External Inquiry Request** on page 2-23. Precisely, there are following types of inquiries: consumption history, customer contact history, substation inquiry, circuit inquiry, line segment inquiry, incident list inquiry, Transformer Station Equipment Inquiry, transformer station, customer inquiry, switch inquiry.

External Inquiry Data

This menu item contains a sub-menu of available external inquiry data screens. This menu item is enabled if the allow crew to request external inquiry data (ENABLEEXTERNALINQUIRY) parameter in the DHTMWINI table is 'TRUE'. If the parameter is 'FALSE', this menu item is disabled. If the inquiry data exists on the mobile, the sub-menu item is enabled, otherwise the sub-menu item is disabled. The sub-menu items are **Consumption History, Field Order History, Customer Contact History, Customer Contact Details, Substation, Circuit, Line Segment, Switch, Transformer Station Equipment, Transformer Station Customer, and Incident Report**. When selected, the appropriate External Inquiry Data screen is displayed. Refer to **External Inquiry Data** on page 2-25.

Enroute

This menu item is used to put a crew "enroute" to an order. This menu item is enabled when an order with a status of 'Dispatched' or 'Acknowledged' is selected in the Open Orders view. This

menu item is disabled in the Worked Orders view. When selected, the Enroute to Order screen is displayed. Refer to **Field Order Enroute Screen** on page 2-11.

Start

This menu item is used to put a crew “onsite” to a BREAK. This menu item is enabled when an order with a status of ‘Dispatch’ is selected in the Open Orders view. This menu item is disabled in the Worked Orders view. When selected, the status of the order is changed to onsite. Based on the initial field order screen to display parameter (InitialFieldOrderScreen), the appropriate screen is displayed.

Onsite

This menu item is used to put a crew “onsite” to an order. This menu item is enabled when an order with a status of ‘Enroute’ is selected in the Open Orders view. This menu item is disabled in the Worked Orders view. When selected, the status of the order is changed to onsite. Based on the initial field order screen to display parameter (InitialFieldOrderScreen), the appropriate screen is displayed.

Cancel Status

This menu item is used to cancel the status of an order currently being worked by a crew. This menu item is enabled when an order with a status of ‘Enroute’ or ‘Onsite’ is selected in the Open Orders view. This menu item is disabled in the Worked Orders view. When selected, the status of the order is changed back to ‘Dispatched’ or ‘Acknowledged’ based on the priority of the order.

Return To Onsite

This menu item is used to return to onsite for an order. This menu item is enabled when an order is selected in the Pick-Up Orders view. When selected, the order is displayed in Completion mode, allowing the user to enter completion data.

Cancel Order

This menu item is used to logically cancel an open order. The user logically cancels an order when the order has been cancelled in the Oracle Utilities Mobile Workforce Management application, but since the user is not communicating wirelessly, the cancellation cannot be sent to the mobile device. The dispatcher can voice the cancellation to the user and the user can then logically cancel the order to remove it from their Open Orders view. This menu item is enabled when an order is selected in the Open Orders view. This menu item is always disabled in the Worked Orders view. When selected, the order status is updated to Complete/Cancelled and is moved to the Worked Orders view. Orders that have been logically cancelled are never sent to the Server. They are deleted from the mobile when the crew logs off at the end of shift.

Un-cancel Order

This menu item is used to Un-cancel a logically cancelled order. If an order was erroneously cancelled, the user can un-cancel (e.g. re-open) the order. This menu item is enabled when a cancelled order is selected in the Worked Orders view. This menu item is always disabled in the Open Orders view. When selected, the order status is updated to Open/Dispatched or Open/Acknowledged based on the priority of the order. The un-cancelled order is moved to the Open Orders view.

Find on Map

This menu item is enabled when a single field order is selected in the list. When selected, the mapping subsystem is manipulated such that the field order 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 is not currently displayed on the map.

Add to WAM Time Sheet

This menu item is enabled when a single field order is selected in the list. When selected, the Crew Time Sheet screen is displayed so the user can enter or edit time sheet information for the selected field order. Refer to **Crew Time Sheet** [on page 1-19](#) for more information about this function.

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 is enabled in the field order subsystem, but is disabled in the Crew and Mail subsystem. This menu item contains a sub-menu of available sorting methods for the field order list.

The Predefined Views sub-menu items are:

- Open Orders
- Picked Up Orders
- Review Orders
- Worked Orders

These represent pre-defined views for the field order list. When Open Orders is selected, all open orders, excluding open picked up orders, are displayed in the list. When Picked Up Orders is selected, all open pick up orders are displayed in the list. When Review Orders is selected, all orders that have been selected for review are displayed in the list. When Worked Orders is selected, all complete and incomplete orders are displayed in the list.

The menu item for the currently selected view is disabled. Review orders view is only available for users with an access level of service supervisor. Review orders are disabled if the logged on user has an access level of service representative.

Field Order List Sorting

This menu item is enabled in the field order subsystem, but is disabled in the Crew and Mail subsystem. This menu item contains a sub-menu of available sorting methods for the field order list. The sub-menu items are **Default**, **Route**, and **User Defined**. A checkmark will appear next to the current sort method. Default will sort the field orders in the list using the default sort columns specified in the FO_Subsys.ini file. Route will sort the field orders in the list using their arranged route sequence. If the user has not arranged their route, the sequence of the orders will not change when this item is selected. User Defined will sort the field orders in the list using the user defined sort columns. If the user has not defined user sort columns, the sequence of the orders will not change when this item is selected. The Set Sort Columns function is used to specify user defined sort columns.

Refresh

This menu item is always enabled. Selecting this menu item will cause the field order list to be refreshed.

Copy

This menu item is enabled when one field order is 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).

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 DHTMWINI table are used to populate the Set Display Columns screen. Refer to **Set Display Columns Screen** on page 7-183 for more information.

Set Sort Columns...

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 DHTMWINI table are used to populate the Set Sort Columns screen. Refer to **Set Sort Columns Screen** on page 7-185 for a further description of this function.

Font

This menu item contains a sub-menu of available font settings. The sub-menu items are **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 hard drive. The Field Order subsystem options selected (e.g. display columns, width, sequence, sort columns, and font) are stored on the hard drive by the logged on user's id.

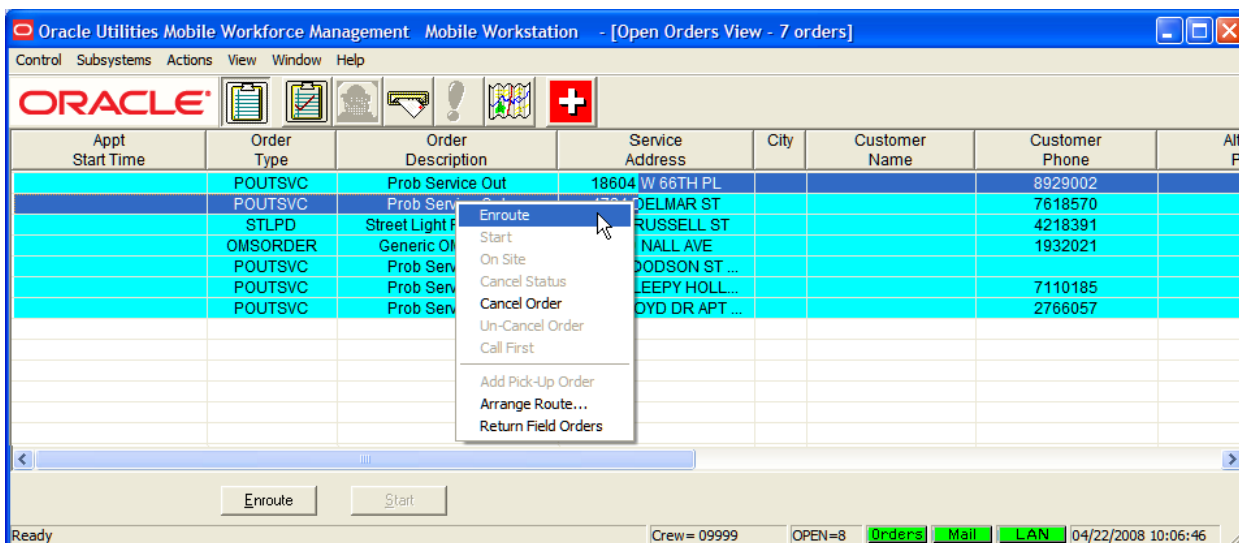
Auto-Resize Columns

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

Function/Process Description

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. The Field Order list, shown below, provides a tabular display of field orders. The Field Order list is capable of displaying all field orders on the mobile unit. 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.



One 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 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.

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.

The user has the option of changing the width of the field order columns. Using the mouse, position the cursor on the line following the column header 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 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 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.

Using the right mouse button while in the list will display the pop-up menu. The pop-up menu contains a subset of the Actions menu. The popup menu items are Enroute, Onsite, Cancel Status, Call First, Add Field Order, Arrange Route, and Return Field Order. 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** on page 2-1 for a description of the menu items.

The user can display a field order by double clicking on the selected order in the list. The field order is 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 is displayed in browse mode.

Buttons

The Field order list displays the following buttons at the bottom of the screen. These buttons provide access to functions that are also available from the Actions menu.

Button	Description
Enroute Button	This button is used to put a crew “enroute” to an order. This button is enabled when an order with a status of ‘Dispatched’ or ‘Acknowledged’ is selected in the Open Orders view. This button is disabled in the Worked Orders view. When selected, the Enroute to Order screen is displayed. Refer to Field Order Enroute Screen on page 2-11.
Start	This button is used to put a crew “onsite” to a BREAK. This button is enabled when an order with a status of ‘Dispatch’ is selected in the Open Orders view. This button is disabled in the Worked Orders view. When selected, the status of the order is changed to onsite. Based on the initial field order screen to display (InitialFieldOrderScreen) parameter, the appropriate screen is displayed.

Data Fields

The Mobile Workstation Field Order list uses the same columns as the Dispatch Workstation Field Order list. Refer to **Field Order List** on page 2-7 for a list of columns.

Interfaces

The field orders are stored in the Orders directory on the Mobile Workstation. When the field order list is displayed, the field orders in the Orders directory are read and common field order data is stored internally in the Mobile Workstation application.

Validation

- Some Action Menu items are enabled only when a field order is highlighted in the Field Order list.
- More than one field order cannot be highlighted in the list.

Data Updates

None

Field Order Screens Shared with Dispatch Workstation

Oracle Utilities Mobile Workforce Management uses a set of field order screens for displaying and working field orders. The Dispatch Workstation application and the Mobile Workstation application share the same Field Order Screens.

The following is a list of the Field Order Screens shared between the Dispatch Workstation application and the Mobile Workstation application. Refer to **Shared Screens** on page 7-1 for a functional description of each of the shared field order screens.

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

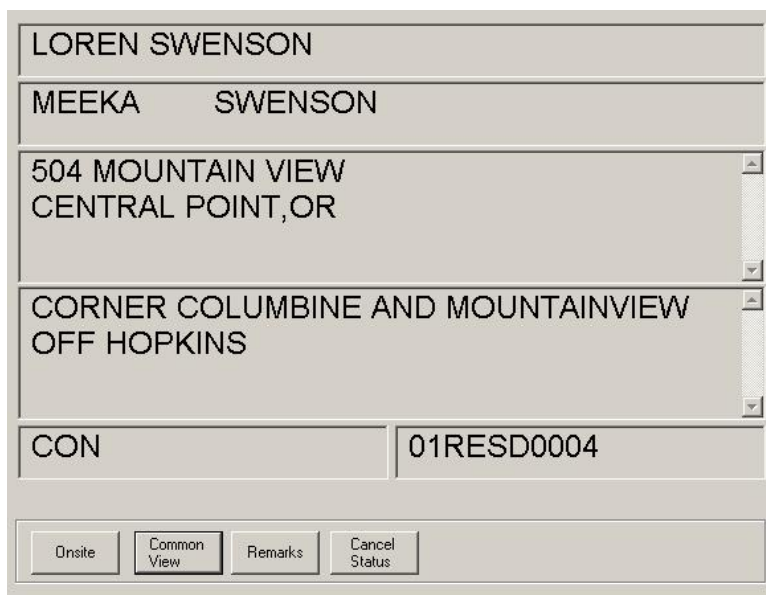
Support Screens:

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

Field Order Enroute Screen

Function/Process Description

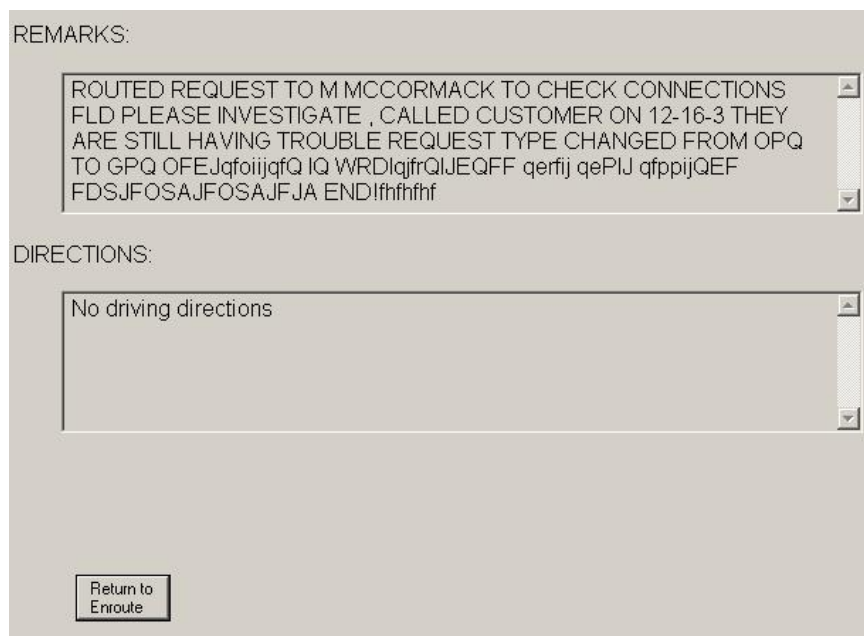
The Enroute screen (see following figure) displays all pertinent information needed by the crew for timely arrival at the appropriate service address. This screen is displayed when the 'Enroute' button or menu item is selected for a field order.



The Enroute screen displays the following information:

- LOREN SWENSON
- MEEKA SWENSON
- 504 MOUNTAIN VIEW
CENTRAL POINT, OR
- CORNER COLUMBINE AND MOUNTAINVIEW
OFF HOPKINS
- CON 01RES0004
- Buttons: Onsite, Common View, Remarks, Cancel Status

When the Enroute screen is displayed, the user can access the field order details by pressing one of the buttons at the bottom of the screen. The Common View button will access the Common Information screen and the Remarks button will access the Enroute Remarks screen. The Enroute Remarks screen displays order remarks and driving directions. If there are no remarks, 'No order remarks' is displayed on the Enroute Remarks screen (see following figure).



The Enroute Remarks screen displays the following information:

- REMARKS:
ROUTED REQUEST TO M MCCORMACK TO CHECK CONNECTIONS
FLD PLEASE INVESTIGATE , CALLED CUSTOMER ON 12-16-3 THEY
ARE STILL HAVING TROUBLE REQUEST TYPE CHANGED FROM OPQ
TO GPQ OFEJgfoijqfQ IQ WRDlqjfrQIJEQFF qerfij qePIJ qfppijQEF
FDSJFOSA JFOSA JFJA ENDIfhfhfhf
- DIRECTIONS:
No driving directions
- Return to Enroute button

If there are no driving directions, 'No driving directions' is displayed on the Enroute Remarks screen. The user can return to the Enroute screen by pressing the Return to Enroute button.

The user can change status for the order by selecting the Onsite button, the Onsite menu item, the Cancel Status button, or the Cancel Status menu item. Selecting the Onsite button or menu item, the status of the order is changed to onsite and, based on the order type, either the Safety Check or initial field order screen is displayed. If the Cancel Status button and menu item is selected, a message box asking the user to confirm that the order status is to be cancelled. If the user confirms the cancel status, the status of the order is reset. If the order was an emergency order, the status is reset to Acknowledged. If the order was NOT an emergency order, the status is reset to Dispatched.

Data Fields

This section describes the data fields on each screen.

Enroute Screen

Field Name	Description
Customer Name	Customer's name on the order
Name Overflow	The name overflow can contain a co-customer name if a residential customer, a doing business as name for non-residential customers, or blank.
Service Address	Customer's service address on the order
Site Instructions	Customer's site instructions on the order
Order Type	The order type code on the order.
Rate Schedule	The customer's rate schedule on the order.

Enroute Remarks Screen

Field Name	Description
Remarks	Remarks on the order. If there are no remarks, the text 'No order remarks' is displayed.
Directions	Driving directions on the order. If there are no driving directions, the text 'No driving directions' is displayed.

Interfaces

The enroute time is sent to the Server in the enroute transaction. If the application is communicating in a 'Wired' mode, the transaction is 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_ENROUTE flag for the specific order type is 'Y', the transaction is sent to the Server; otherwise, the transaction is thrown away, since the enroute time will also be sent with the completion data transaction. The Server will update the database and send notification of the enroute time and status to the appropriate logged-on Dispatch Workstation users in a field order status transaction. The Server will also send the field order status transaction to the Router for routing to any external applications. The Server writes a message to the Audit list box and log stating that the crew has gone enroute to the field order.

If the Onsite button or menu item is selected, the onsite time is sent to the Server in the onsite transaction. If the application is communicating in a 'Wired' mode, the transaction is 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_ONSITE flag for the specific order type is 'Y', the transaction is sent to the Server; otherwise, the transaction is thrown away, since the enroute time will also be sent with the completion data transaction. The Server will update the database and send notification of the onsite time and status to the appropriate logged-on Dispatch Workstation users in a field order status transaction. The Server will also send the field order status transaction to the Router for routing to any external applications. The Server writes a message to the Audit list box and log stating that the crew has gone onsite to the field order.

If the Cancel Status button or menu item is selected, a cancel status transaction is sent to the Server. If the application is communicating in a 'Wired' mode, the transaction is 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_ENROUTE flag or SEND_ONSITE flag for the specific order type is 'Y', the transaction is sent to the Server; otherwise the transaction is thrown away. The Server will update the database and send notification of the status to the appropriate logged-on Dispatch Workstation users in a field order status transaction. The Server will also send the field order status transaction to the Router for routing to any external applications. The Server writes a message to the Audit list box and log stating that the crew has cancelled status on the field order.

Validation

There is no data validation performed for this screen. This screen is read-only.

Data Updates

When the Server processes the enroute transaction, the enroute time is stored in the field order scheduling database table (DHTFOSCH). The tracking status of the order is changed to 'E' in the field order scheduling database table. The current field order number, dispatch time of the current field order, and enroute time of the current field order in the Crew database table (DHTCREW) is updated.

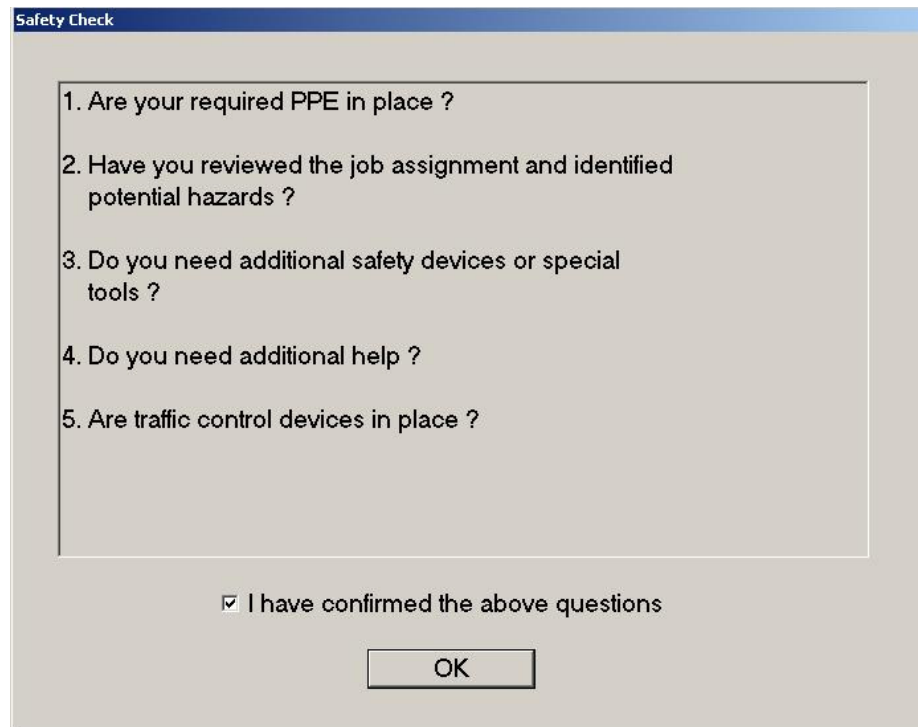
When the Server processes the onsite transaction, the onsite time is stored in the field order scheduling database table (DHTFOSCH). The tracking status of the order is changed to 'P' in the field order scheduling database table. The current field order number, dispatch time of the current field order, enroute time of the current field order, and the onsite time of the current field order in the Crew database table (DHTCREW) is updated.

When the Server processes the cancel status transaction, the enroute time and onsite time is cleared in the field order scheduling database table (DHTFOSCH). If the RecordMobileCancelStatus Server INI parameter (DHTSVINI) is TRUE, a copy of the DHTFOSCH record is made for audit purposes before the times are cleared. Based on the priority of the order type, the tracking status of the order is reset to 'D' or 'K' in the field order scheduling database table. The current field order number, dispatch time of the current field order, enroute time of the current field order, and the onsite time of the current field order in the Crew database table (DHTCREW) is cleared.

Field Order Safety Check Screen

Function/Process Description

The Safety Check screen, shown below, is displayed for certain order types.



Safety Check

1. Are your required PPE in place ?
2. Have you reviewed the job assignment and identified potential hazards ?
3. Do you need additional safety devices or special tools ?
4. Do you need additional help ?
5. Are traffic control devices in place ?

☒ I have confirmed the above questions

OK

The user should read and process the questions. The user must check the checkbox to indicate that they have confirmed the questions on the screen and then press the Ok button.

The Spare 2 column in the Field Order Type table is used to determine if the safety check screen should be displayed. If the order type has a value is 'Y', the safety check screen is displayed when the Onsite button is selected. When the Ok button is selected, the appropriate screen is displayed, based on the initial field order screen to display (InitialFieldOrderScreen) parameter. If the order type has a value of 'N', the Safety Check screen is bypassed and the appropriate field order screen is displayed.

Data Fields

Data fields are described below:

Field Name	Description
Safety Questions	Series of safety questions for the crew to consider.
Confirmation checkbox	Confirms that the user read the safety questions on the screen.

Interfaces

None

Validation

The user must check the confirmation checkbox.

Data Updates

None

Add Field Order

Function/Process Description

This function enables a Mobile Workstation user to 'add' a new field order. The Field Order Screen screen, shown below, is accessed via the Add menu item under the Actions menu.

The screenshot shows a 'Field Order Screen' window with a blue title bar and a close button. The form is organized into several sections. On the left, there are fields for Name, Addr, City, Order Type (dropdown), Priority, District (dropdown), Service Area (dropdown), Meter Number, Pole, Meter Number 2, Service Phone, Contact Phone, CSS Taken Date (08/31/2006), CSS Taken Time (16:31), Date Wanted (08/31/2006), Appointment Time (dropdown), Dispatch Date, and Dispatch Time. On the right, there is a 'Gas Emergency Info' section with dropdowns for Type/Condition, Location, Odor, Odor Duration, Appliance, and Pilot. Below this are Completion Status (0), Tracking Status (U), Pre_Assign to Crew (dropdown), and Taken By (SVCSUPR). At the bottom, there is a large text area for Order Remarks and two buttons: Ok and Cancel.

Note: The field order you create from this screen is not related to any field order already on the mobile.

The user enters minimal information about the field order (e.g. customer name, address, order type). Setting the 'Available for Create' flag in the field order type table controls whether or not an order or a particular type can be added.

Once the order is created on the Mobile Workstation (order number of a "P" + sequence#), the order is brought to the completion mode, then at this point the mobile crew can work the order normally.

The new order data is sent to the Server, based on the flag "UseMobilityNumberForPickupOrder" the order number is assigned and added to the database.

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'.

Field Name	Description
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).
Service Area	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).
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.
Host System Taken Date	The date the order was taken. The field is set to the current date, but can be modified.
Host System Taken Time	The time the order was taken. The field is set to the current time, but can be modified.
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 is 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).
Pre_Assign to Crew	The list of Crew ID's.
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).

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

Interfaces

Once the order has been added to the mobile, the new order data is sent to the Server. The Server will assign the order an order number and insert it into the database. The Server will send the new order number back to the Mobile Workstation application. The new order data is sent to the Router for routing to the appropriate external application (e.g. Host System, etc.). Additionally, an 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 Server writes a message to the audit list box and log stating that the crew has created a new order.

Validation

This data is validated at the screen level only. No data is validated by the customer's Host System. The following is the validation performed when adding a new order.

When an order is being added:

- 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 'Gas Trouble', 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 Update

The Server will assign a new field order number and insert the new order into the field order database tables.

Arrange Route

Function/Process Description

This function enables a Mobile Workstation user to specify the order in which their field orders will be worked. The Arrange Route screen, shown below, is accessed via the Arrange Route menu item in the System menu.

Appt Start Time	Order Type	Order Description	Service Address	City	Customer Name
	POUTSVC	Prob Service Out	4724 DELMAR ST		
	STLPD	Street Light Pole Down	12325 RUSSELL ST		
	OMSORDER	Generic OMS Event	7309 NALL AVE		
	POUTSVC	Prob Service Out	13401 WOODSON ST ...		
	OMSORDER	Generic OMS Event	14704 S VILLAGE DR		
	POUTSVC	Prob Service Out	10927 W 63RD ST		

This allows a user to group orders together geographically to facilitate less drive time and greater efficiency. This does not prevent the crew from working the orders in any sequence.

The Arrange Route list displays the same columns as the field order list. The user does not have the option to specify a different set of columns for display/sort for this list. The user can temporarily move the position of a column by clicking on the column header and dragging the column to the desired position. This is a temporary change and is not stored. If this screen is redisplayed again, the columns are reset.

The user can rearrange the orders by moving them up or down in the list. The desired order should be highlighted and arrow buttons on the left are used to move the order. The Move buttons are only enabled when an order is highlighted in the list. Only one order can be highlighted at a time. Once the orders have been 'arranged' in the desired order, pressing the OK button will save the arranged route. The user can press the Cancel button to return to the field order list without making any changes to the sequence of the orders. The Enroute button is used to put a crew "enroute" to an order. This button is enabled when an order with a status of 'Dispatched' or 'Acknowledged' is selected. When selected, the Enroute to Order screen is displayed. Refer to **Field Order Enroute Screen** on page 2-11 for more information.

When the Route Field Order Sorting option is selected under the System Menu, the orders in the field order list are displayed in their arranged route.

If the send arranged route sequence (SendArrangeRoute) parameter in the DHTMWINI table is 'Yes', the crew's arranged route is sent to the Server. The Server will store the arranged route in the database and send the transaction to the Router for further processing.

Data Fields

The Arrange Route list uses the same columns as the Dispatch Workstation Field Order list. Refer to **Field Order List** on page 2-7 for a list of columns.

Interfaces

The crew's arranged route is sent to the Server if the ArrangeRoute INI parameter is 'Yes'. If the parameter is 'No', the user can still arrange their orders into a route, but the route will not be transmitted to the Server. The Server will update the database with the 'arrange route' data. The transaction is forwarded to the Router application for further processing.

Validation

None

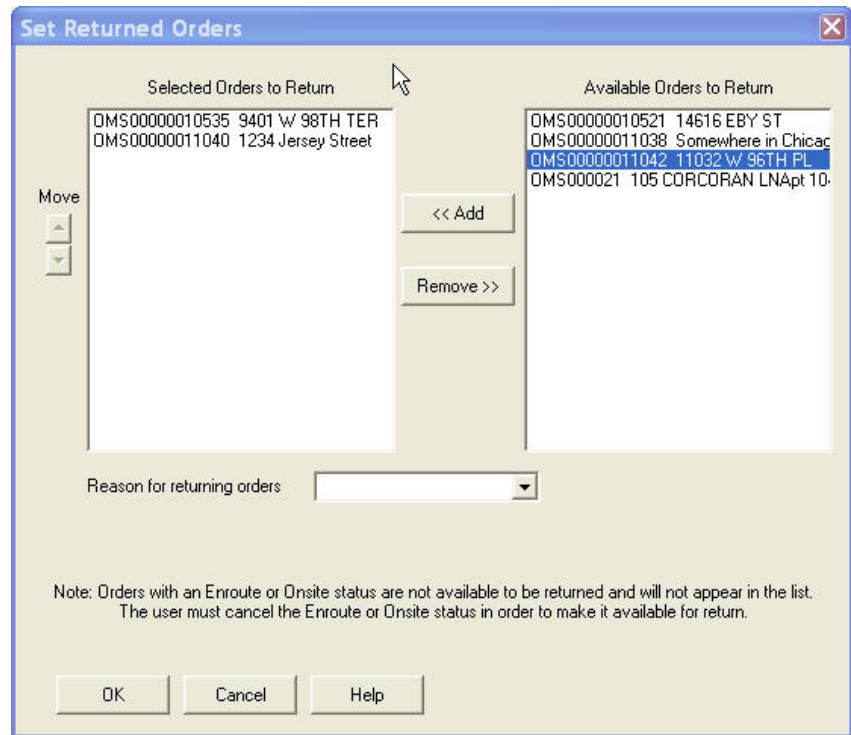
Data Updates

The crew's arranged route is inserted into the Crew Route database table (DHTCRWRT).

Return Field Orders

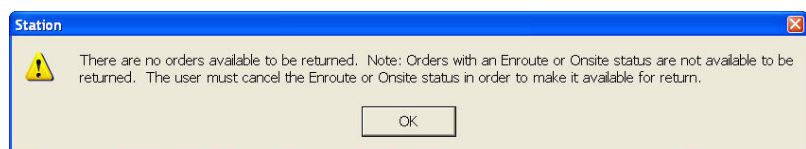
Function/Process Description

This function enables a Mobile Workstation user to 'return' field orders to the dispatcher that the crew will not be able to work. The Return Field Orders screen, shown below, is accessed via the Return Field Orders menu item under the Actions menu.



The mobile must be in the Open Orders view and have open field orders before the Return Field Orders menu item is enabled. The Return Field Orders function can be disabled permanently by setting the allow crew to return orders to the dispatcher EnableReturnOrders parameter to 'FALSE'.

If there are orders in the list, but none of them is eligible to be returned (e.g. status not equal to Enroute or Onsite), the following message is displayed and the user is not able to access the Return Field Orders screen.



The Return Field Orders screen lists the open orders in the Available Orders to Return list box. Orders with a status of Enroute or Onsite are not eligible to be returned and are not listed in the Available Orders to Return list box. The order number and address of each open order are listed. The Selected orders to return list box lists those orders that have been selected for return. To select orders for return, the user highlights one of more field orders in the Available list box and presses the Add button. The highlighted orders are moved from the Available list box to the Selected list box. To unselect orders for return, the user highlights the desired orders in the Selected list box and presses the Remove button. The highlighted orders are moved from the

Selected list box to the Available list box. The user must select a reason for returning the orders and press the OK button.

The Server sends an acknowledgment to the mobile when the field order(s) are successfully returned. The orders are not considered returned until acknowledgment is received from the Server. The User Notification screen is displayed on the Mobile Workstation desktop listing the orders that have been returned. The returned orders are deleted from the mobile. An internal mail transaction is generated stating which orders have been returned. If the order that the user is attempting to return is not found in the database or is already complete, the Server deletes the order from the Mobile.

Data Fields

Data fields are described below:

Field Name	Description
Selected Orders to Return	The orders that have been selected to return.
Available Orders to Return	The open orders available to return.
Reason for returning orders	The reason the orders are being returned. This list is populated with the available return reasons from the reason validation table (DHTREASN) with the type of 'T'.

Interfaces

A return field orders transaction is sent to the Server for processing. The Server resets the field orders in the transaction to unassigned and sends a return field orders acknowledgment transaction back to the Mobile Workstation application as confirmation that the orders have been returned.

The orders are not considered “returned” until the Ack is received from the Server. If the Ack is never received, the orders remain on the mobile unit in the Open Orders list.

A field order status transaction is sent to all appropriate Dispatch Workstation users and the Router as notification that the orders have been unassigned. A mail message transaction is generated and sent to all Dispatch Workstation users monitoring the crew stating which orders have been returned and the reason they were returned.

Validation

At least one order must be selected for return before the OK button can be selected. A reason must be selected before orders can be returned.

Data Updates

The Server updates the status of each order that has been returned to Unassigned. A new field order scheduling record is created in the field order scheduling database table (DHTFOSCH) to record the fact that the order was returned.

External Inquiry Request

Function/Process Description

The External Inquiry Request screen is used to request inquiry data from the Oracle Utilities Network Management System. The External Inquiry Request screen, shown below, is accessed from the External Inquiry Request menu item under the Action menu in the Field Order subsystem. This menu item is enabled or disabled based on the EnableExternalInquiry INI configuration parameter.

When this screen is displayed, all fields are enabled for input. Validation is performed to ensure the appropriate data has been entered, before the data is sent to the Oracle Utilities Mobile Workforce Management Server for processing.

Data Fields

Data fields are described below:

Field Name	Field Description
Device Details	This field indicates a device details inquiry is being made.
Clue Details	This field indicates a clue details inquiry is being made.
Customer Details	This field indicates a customer details inquiry is being made.
Device Details	
Device Name	This field contains the name of the device for which the inquiry is being made.
Clue Details	
Event Number	This field contains the number of the event for which the inquiry is being made.
Customer Details	
Account Number	This field contains the account number of the customer for which the inquiry is being made.

Interfaces

The request screen creates an MfInquiryReq and sends it to the Server. The Server passes the transaction to the appropriate external application. The external inquiry data is received by the Server and returned to the requesting user. The Server writes a message to the audit list box and log when the crew sends an external inquiry request. The Server also writes a message to the audit list box and log when the Server sends external inquiry data to a crew.

Validation

If Device Details is selected, the Device ID field is enabled and pre-populated from the selected order. The other 2 fields are disabled.

If Clue Details is selected, the Event Number in the Clue Details is enabled and pre-populated from the selected order. The other 2 fields are disabled.

If Customer Details is selected, the Account Number in the Customer Details is enabled and pre-populated from the selected order. The other 2 fields are disabled.

Data Updates

None

External Inquiry Data

Function/Process Description

This function displays the inquiry data received from the Oracle Utilities Network Management System. Three types of inquiries are supported: Device Details, Clue Details, or Customer Details. Each inquiry type is available as a sub-menu item under the External Inquiry Data option on the Action menu in the Field Order subsystem. The three External Inquiry Data screens are shown in the following figures:

Device ID: xfm_ss_JO-881474

FACILITY_ID	FEEDER_ID_1	FEEDER_ID_2	FACILITY_SIZE	FACILITY_TYPE	SIZE_TYPE	LOCATION
1037794	2212	2212	50	3.1	ELBOW	13006 STEARNS ST

More Close

Clue Event #: 00000010304

Account #	Address	Trouble Code	Messages	Customer Name	Phone	Emergency
6002889302	13006 STEARNS ST, Overland Park, KS 66213	Out	N	HANLON, MURRAY	5556122487	N
2479924587	12916 STEARNS ST, Overland Park, KS 66213	Out	N	WHITE, LENNY	5558278677	N
1550943618	12912 STEARNS ST, Overland Park, KS 66213	Out	N	ECKSTEIN, MARYLEN	5556165276	N
9454183482	12909 FARLEY ST, Overland Park, KS 66213	Out	N	ANTONIO, SHELIAH	5557825918	N
8408134186	12910 CONNELL DR, Overland Park, KS 66213	Out	N	ROMSTAD, MYRA	5556117682	N
1530605549	9812 W 130TH ST, Overland Park, KS 66213	Out	N	MUONG, SUZANNE	5556156932	N
4838833679	12917 FARLEY ST, Overland Park, KS 66213	Out	N	ASUNCION, MERLIA	5557820861	N
6570253022	12913 FARLEY ST, Overland Park, KS 66213	Out	N	SHORTRIDGE, RESHA	5556118334	N
4845164087	9804 W 130TH ST, Overland Park, KS 66213	Out	N	MAHER-WILLIAMS, CHANH		
2717873991	12901 FARLEY ST, Overland Park, KS 66213	Out	N	BOCKHOLD, VAIHERE		

More Close

Customer Account #: 6002889302

Customer Name	Address	Meter #	Account #	Critical	Phone #	Alt. Phone #
HANLON, MURRAY	13006 STEARNS ST, Overland Park, KS, 66213	1224038264430	6002889302	N		

More Close

The External Inquiry Data menu item is enabled or disabled based on the EnableExternalInquiry INI parameter. The External Inquiry Data menu contains sub-menu items for each type of inquiry request. If the data has been received for a particular inquiry type, the sub-menu item is enabled; otherwise, it is disabled until the data is received. It is also disabled if the “More” button has been clicked and additional data is pending.

Data Fields

Device Details Screen

Field Name	Field Description
FACILITY_ID	The facility id of this device.
FEEDER_ID_1	The feeder id of this device.
FEEDER_ID_2	The feeder id of this device.
FACILITY_SIZE	The facility size of this device.
FACILITY_TYPE	The facility type of this device.
SIZE_TYPE	The size type of this device.
LOCATION	The location of this device.
LOCATION_2	The location of this device.
LOCATION_3	The location of this device.
STREET_NAME	The street name where the device is located.
STREET_STRUC	The street structure where the device is located.
OPERATING_VOLTAGE	The operating voltage of the device.
NOMINAL_VOLTAGE	The nominal voltage of the device.
PHASE_DESIGNATION	The phase designation of this device.
PHASE_POSITION	The phase position of this device.
CONTROL_ZONE_1	The control zone associated with this device.
COMMENT_2	The comments associated with this device.
COMMENT_3	The comments associated with this device.
COMMENT_4	The comments associated with this device.
OWNER	The owner of this device
MODEL	The model of this device.
SERIAL_NUMBER	The serial number of this device.
MANUFACTURER	The manufacturer of this device.
LOCATION_TYPE	The location type of this device.
RATED_KVA	The rated kilovolt-ampere of this device.
RATED_KVA_A	The rated kilovolt-ampere of this device.
RATED_KVA_B	The rated kilovolt-ampere of this device.
RATED_KVA_C	The rated kilovolt-ampere of this device.
RATED_TERTIARY_KVA	The rated tertiary kilovolt-ampere of this device.
HIGH_SIDE_CONFIGURATION	The high side configuration of this device.

Clue Details Screen

Field Name	Field Description
Field Order History	
Account #	The account number associated with this event.
Address	The address associated with this event.
Trouble Code	The trouble code associated with this event.
Messages	The messages associated with this event.
Customer Name	The customer name associated with this event.
Phone	The phone number associated with this event.
Emergency	Indicates if emergency customers.
Medical	Indicates if medical customers.
Key	Indicates if key customers.

Customer Details Screen

Field Name	Field Description
Customer Name	The name of the customer.
Address	The address of the customer.
Meter #	The meter number of the customer.
Account #	The account number of the customer.
Phone #	The phone number of the customer.
Alt. Phone #	The alternative phone number of the customer.
Last Call Trouble Code	The last call trouble code of this customer.
Last Call Messages	The last call messages of this customer
Last Call Time	The last call time of this customer.

Interfaces

The inquiry data to be displayed is transformed and converted by the Router and then sent from the Router to the Mobile Station via the Server in a XicdMfInqGeneralData ICD. The Router also sets the OutputFileName of the transaction based on the Inquiry type. The station saves this file to the Inquiry directory when it receives the ICD. Once the data is received for an inquiry type via the correct filename, the appropriate sub-menu item is enabled and a user notification is displayed on the desktop to notify the user that the requested data has been received. The External Inquiry Data Screen then processes the dynamic result set in the XML fragment saved in the output file. If there was an error in processing, this notification dialog displays the error and the Data screen is not available.

If, via the NextRow tag, the inquiry data indicates there is more data available for the requested item (e.g., device, event, customer), the More button is enabled; otherwise, it is disabled. If the user selects the More button, the system builds another XicdMfInqReqGeneral transaction, causing the next group of details to be requested. If the inquiry data transaction indicates there are more data

available, it will also contain the value for the NextRow that was passed back from the previous query to OMS. The NextRow value will be sent in the new request ICD generated. This transaction is sent to the Server for routing to the Router application. A user notification is displayed on the desktop to notify the user that the request has been sent.

The Router application converts the ICD into an XML transaction and sends it to Oracle Utilities Network Management System for processing. The ExtConnName variable in the Xicd should be set to “OMS”, so this inquiry will be sent to Oracle Utilities Network Management System, instead of another external application.

Validation

There is no validation for this screen.

Data Updates

There are no data updates. The external inquiry data is not stored permanently in the Oracle Utilities Mobile Workforce Management system.

Chapter 3

Crew Status Subsystem

This chapter describes the Crew Status subsystem. It includes the following topics:

- Crew Status Menus
- Crew Status List
- Crew Selection
- Crew Detail
- Supervisor FO Status Request
- Emergency Order Acknowledgment

Crew Status Menus

Crew	Tel Name	Status	Time	Zone	Appt Ind	Review Ind	#Assn	#Disp	#Cmpl	#Incmpl	#Ret	#Rec	#Realloc	#Alloc	Skills	Primary Function
02336	Douglas Counsellor	LOGGED OFF		DOCENT	0	N	0	0	0	0	0	0	0	0		SV
09017	Thomas Keyton	LOGGED OFF		DMNW	0	N	0	0	0	0	0	0	0	0		
09255	Lyon David	LOGGED OFF		DMNW	0	N	0	0	0	0	0	0	0	0		
1001	Jon Jeffrey	LOGGED ON	06/19/2008 17:48:00	JOCO	0	N	0	0	0	0	0	0	0	0	COL , MTR1 , LINE	00
1003	Ted Thompson	LOGGED OFF		JOCO	0	N	0	0	0	0	0	0	0	0		EV
1005	Steve Victor	LOGGED OFF		SSNE	0	N	0	0	0	0	0	0	0	0		SV
1006	Pat Downey	LOGGED OFF		JOCO	0	N	0	0	0	0	0	0	0	0		SV
DEMO1	Technician001	LOGGED ON	06/16/2008 14:06:00	JOCO	0	N	4	1	0	0	0	2	1	4	002 , PwrQui, LINE	TR

The Crew Status subsystem is used to monitoring the current status of crews. 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. This function is only available when the logged-on user has an access level of Service Supervisor. If the logged-on user is not a Service Supervisor, the Crew Status menu item and toolbar button are disabled.

The Crew Status List is the initial screen displayed when a Service Supervisor logs onto the Mobile Workstation application.

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:

Get Crew Detail

The Get Crew Detail menu item is enabled when a single crew is highlighted in the Crew Status list. When this item is selected, the Crew Detail screen is displayed. If detail data already exists for the selected crew, it is displayed on the screen. If detail data does not exist for the selected crew on the hard drive, the Mobile Workstation application generates and sends a Crew Detail request transaction to the Server. This transaction requests the current details for the specified crew. A message stating that the crew detail request has been sent is displayed in a user notification screen. When crew detail data is received, a message stating that the crew detail data has been received is displayed in a user notification screen. The crew detail data is stored on the hard drive using the crew id. If the crew detail screen is currently displayed, the screen is automatically updated. Refer to **Crew Detail** on page 3-9 for more details.

Review FO

The Review FO menu item is enabled when a field order is highlighted in the Crew Detail field order list. When this item is selected, the Mobile Workstation application generates and sends a Review FO transaction to the Server. This transaction requests the specified field order be sent to the requesting crew. The order is not assigned to the requesting crew. The field order data is sent to the crew for review purposes only. A message stating that the review field order request has been sent is displayed in a user notification screen. When requested field order data is received, a message stating that the field order data has been received for review is displayed in a user notification screen. The user can view the field order data by navigating to the Field Order subsystem and selecting the Review Orders pre-defined view. This crew cannot update the field order data.

Change Primary Function

The Change Primary Function menu item is enabled when a single crew is highlighted in the Crew Status list. When this item is selected, the Change Primary Function screen is displayed so the mobile supervisor can change the primary function of the selected crew. Refer to **Change Primary Function Screen** on page 1-11 for more information.

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:

Refresh

The Refresh menu item is always enabled. When selected, the Mobile Workstation application generates and sends a Crew Status request transaction or a Crew Detail Request transaction to the Server. This transaction requests the current status of the crews the user is viewing or the current details for the displayed crew. A message stating that the request has been sent is displayed in a user notification screen. When data is received, a message stating that the data has been received is displayed in a user notification screen. The data is stored on the hard drive. The currently displayed list is automatically updated with the new data.

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).

Supervised Crew Selection

The Supervised Crew Selection button is always enabled. When selected, the Crew Selection screen is displayed. Refer to **Crew Selection** on page 3-7 for more details.

Set Display Columns...

This menu item is used to change the columns that are displayed in the crew status list. The user has the option to change the crew status columns that are displayed and the order in which they are displayed. When selected, the Set Display Columns screen is displayed. The crew status columns as specified in the DHTMWINI table are used to populate the Set Display Columns screen. Refer to **Set Display Columns Screen** on page 7-183 for more information.

Set Sort Columns...

This menu item is used to change the columns that are used to sort the crew status list. The user has the option to change the crew status 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 crew status columns as specified in the DHTMWINI table are used to populate the Set Sort Columns screen. Refer to **Set Sort Columns Screen** on page 7-185 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 appears 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.

Save Options

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

Auto-Resize Columns

This menu item resizes 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.

Interfaces

When the user requests Crew Status (via Refresh menu item or on initial display of the screen), the Mobile Workstation application generates and sends a Crew Status transaction to the Server for processing. A user notification message is displayed on the screen stating that a crew status request has been sent. The Server retrieves the current status of the supervisor's selected crews from the database and return the data to the Mobile Workstation application via a Crew Status Data transaction. The Server writes a message to the audit list box and log stating that the crew has requested Crew Status.

When the Mobile Workstation application receives the Crew Status Data transaction, the data is written to the hard drive. A user notification is displayed stating that the crew status has been received. If the crew status list is currently displayed, it is updated with the received data.

Function/Process Description

Refer to **Crew Status Menus** on page 3-1 for a description of the menu items.

Buttons

The Crew Detail list has one button on the screen.

Button	Description
Get Detail	The Get Detail button is always enabled when a single crew is selected. When this button is selected, the Mobile Workstation application will generate and send a Crew Detail request transaction to the Server. This transaction will request the current details of the selected crew. A message stating that the crew detail request has been sent is displayed in a user notification screen. When crew detail data is received, a message stating that the crew detail data has been received is displayed in a user notification screen. The crew detail data is stored on the hard drive using the crew id. The crew detail screen is automatically updated with the data.
Change Primary Function	The Change Primary Function menu item is enabled when a single crew is highlighted in the Crew Status list. When this item is selected, the Change Primary Function screen is displayed so the mobile supervisor can change the primary function of the selected crew. Refer to Change Primary Function Screen on page 1-11 for more information.

Data Fields

Data fields are described below:

Col#	Header	Mapped Data
0	Crew	CREW
1	Tech Name	TECH_NAME
2	Status	Crew_Status
3	Time	TIME_STAMP
4	Zone	DISTRICT
5	Appt Ind	FO_NUMBER (Number of Appointments)
6	Review Ind	Supervisor Indicator (Supervisor Review)
7	Tech Id	USER_ID
8	Address	BASE_ADDRESS
9	Area	SERVICE_AREA
10	#Assn	FO_ASSIGNED
11	#Disp	FO_DISPATCHED
12	#Realloc	FO_REALLOCATED
13	#Resch	FO_RESCHEDULED
14	#Ret	FO_RETURNED
15	#Rec	FO_RECALLED
16	#Cmpl	FO_COMPLETED

Col#	Header	Mapped Data
17	#Incmpl	FO_INCOMPLETED
18	#Alloc	FO_ALLOCATED
19	User Type	USER_TYPE
20	Skills	SKILLS
21	Primary_Function	PRIMARY_FUNC
22	Shift_Primary_Function_Code	SHIFT_PRIMARY_FUNC_CD

Interfaces

The crew data is retrieved from the Server application and stored on the hard drive whenever requested by the user. When the crew list is displayed, the appropriate records and columns are shown.

When the mobile supervisor changes a crew's primary function, the Server updates the crew's primary function and sends a notification to the crew whose primary function was changed.

Validation

The Crew Detail and Change Primary Function buttons are only enabled when a crew is highlighted in the list.

Data Updates

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

Crew Selection

Function/Process Description

The Crew Selection function provides the Mobile Workstation supervisor user the ability to change the list of crews in the Crew Status list. By default, the user will see a list of their crews. This function is accessed via the Supervised Crew Selection menu item under the View menu.

The Crew Selection screen allows the user to request all crews from all districts, all crews from selected districts, or a list of specific crews in a single district.

If Selected Districts is selected, the District list will be populated with all available districts. The user must select one or more districts in the list. If only one district is selected in the list, the Selected Crews check box is enabled. To select specific crews within the selected district, click on the Selected Crews check box. The Selected Crews list will be populated with all crews in the selected district. The user must select one or more crews in the list.

Additionally, the user can further refine the selection to only return logged-on crews by clicking on All Logged In Crews.

After the selection criteria have been entered, the user will press the OK button. The new crew selection criteria are sent to the Server in a Crew Status request transaction and the Crew Selection screen is dismissed. The Server will retrieve the current status for the appropriate crews and return to the data in a Crew Status Data transaction.

Data Fields

Data fields are described below:

Field Name	Description
Crew Selection	The current crew selection setting will be displayed on the Crew Status screen. The user can select only one of My Crews Only, All Districts, or Selected Districts.
My Crews Only	Indicates that all crews assigned to the logged on supervisor will be selected. This is the default.
All Districts	Indicates that all crews in all districts will be selected.

Field Name	Description
Selected Districts	Indicates that all crews in the selected districts will be selected. Clicking this button will populate the district list with the available districts.
District list	This list contains a list of the available districts using the district validation table (DHTDIST). If only one district is selected in this list, the Selected Crews check box is enabled; otherwise the check box is disabled.
Selected Crews	Indicates that specific crews will be selected. Checking this box will populate the crew list with the crews in the selected district.
Crew list	This list contains a list of the available crews in the selected district using the crew table (DHTCREW).
Display	The current display setting will be displayed on the Crew Status screen. The user can select only one of All Crews or All Logged In Crews.
All Crews	Indicates that all crews meeting the crew selection criteria will be selected. This is the default.
All Logged In Crews	Indicates that only logged-on crews meeting the crew selection criteria will be selected.

Interfaces

When the user changes crew selection, the Mobile Workstation application will generate and send a Crew Status transaction containing the new crew selection criteria to the Server for processing. A user notification message will be displayed on the screen stating that a crew status request has been sent. The current crew selection criteria are stored in memory for later use and the Crew Selection screen is dismissed. The Server will retrieve the current status of the supervisor's selected crews from the database and return the data to the Mobile Workstation application via a Crew Status Data transaction. The Server writes a message to the audit list box and log stating that the crew has requested Crew Status.

Validation

If Selected District is selected, at least one district must be selected in the district list. If Selected Crews is checked, at least one crew must be selected in the crew list.

Data Updates

None

Crew Detail

[illegible]

Function/Process Description

The Crew Detail function provides the Mobile Workstation user the ability to view the details for a specified crew. This function is accessed via the Crew Detail menu item under the Actions menu in the Crew Status subsystem.

The Crew Detail screen provides a detail crew information and tabular display of the orders assigned to the specified crew and the order's current status.

The user cannot change the crew detail columns that are used for display/sort.

The user can request a field order for review by selecting the field order in the list and pressing the Review FO button. Refer to the Review FO button in the table below for more details.

The Crew Detail list has four buttons on the screen.

Button	Description
Review FO	The Review FO button is enabled when a field order is highlighted in the list. When selected, the Mobile Workstation application will generate and send a Review FO transaction to the Server. This transaction will request the specified field order be sent to the requesting crew. The order is not assigned to the requesting crew. The field order data is sent to the crew for review purposes only. A message stating that the review field order request has been sent is displayed in a user notification screen. When requested field order data is received, a message stating that the field order data has been received for review is displayed in a user notification screen. The user can view the field order data by navigating to the Field Order subsystem and selecting the Review Orders pre-defined view. This crew cannot update the field order data.

Button	Description
Refresh Detail	The Refresh Detail button is always enabled. When selected, the Mobile Workstation application will generate and send a Crew Detail request transaction to the Server. This transaction will request the current details of the crew the user is viewing. A message stating that the crew detail request has been sent is displayed in a user notification screen. When crew detail data is received, a message stating that the crew detail data has been received is displayed in a user notification screen. The crew detail data is stored on the hard drive using the crew id. If the crew detail screen is currently displayed, the screen will automatically be updated.
Update FO	The Update FO button is enabled when a field order is highlighted in the list. (This button is disabled if the selected order is already completed.) When selected, it will go to the FO Status Request screen.
Complete FO	The Complete FO button is enabled when a field order is highlighted in the list. (This button is disabled if the selected order is already completed.) This function also sends a ReviewFO ICD and gets back a ReviewFO Data ICD. The application handles the ReviewFO Data ICD differently. It displays the completion screen instead of just adding the order to the review field order list.

Data Fields

Data fields are described below:

Field Name	Description
Status current as of	The date/time the crew detail data was last updated from the Server.
Crew	The id of the crew whose details are displayed.
Tech Name	The name of the primary user assigned to the crew
Field order list	The list of field orders currently assigned to the crew. The orders are sorted by Oracle Utilities Mobile Workforce Management order number in ascending sequence. The display columns are Order Type, Order Number, Review Indicator, Status, Address, Appointment Start Time, Appointment Finish Time, Grid Number, Status Time, and Service Area.
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.
Incompleted	The number of orders incompleted by the crew.

Interfaces

When the user requests Crew Detail (via Refresh Detail button or on initial display of the crew on this screen), the Mobile Workstation application will generate and send a Crew Detail transaction to the Server for processing. A user notification message will be displayed on the screen stating that a crew detail request has been sent. The Server will retrieve the current details for the specified crew from the database and return the data to the Mobile Workstation application via a

Crew Detail Data transaction. The Server writes a message to the audit list box and log stating that the crew has requested Crew Details.

When the Mobile Workstation application receives the Crew Detail Data transaction, the data will be written to the hard drive using the crew id. A user notification will be displayed stating that the crew detail has been received. If the crew detail list is currently displayed, it will be updated with the received data.

When the user requests a Field Order for review (via Review FO button or double clicking on order in list), the Mobile Workstation application will generate and send a Review FO transaction to the Server for processing. A user notification message will be displayed on the screen stating that a review field order request has been sent. The Server will retrieve the current field order data for the specified field order from the database and return the data to the Mobile Workstation application via a Review FO Data transaction. The Server writes a message to the audit list box and log stating that the crew has requested a field order for review.

When the Mobile Workstation application receives the Review FO Data transaction, the data will be written to the hard drive. A user notification will be displayed stating that the review field order has been received. The user can view the field order using the Review Orders pre-defined view in the Field Order subsystem.

When the user requests a Field Order to be completed (via Complete FO button), the Mobile Workstation application will send a ReviewFO ICD and gets back a ReviewFO Data ICD. Mobile Workstation handles the ReviewFO Data ICD differently (e.g. it displays the completion screen instead of just adding the order to the review field order list).

Validation

A field order must be highlighted in the list when the Review FO, Update FO, or Complete FO button is selected. If not an error is displayed. The highlighted field order cannot be Completed when the Update FO button is selected or an error is displayed.

Data Updates

None

Supervisor FO Status Request

Function/Process Description

The Supervisor FO Status Request provides the Mobile Workstation supervisor to change the status of orders being worked. For Non-MDT crews, the field order status must be reported via the radio. The user uses this function to select a crew and send a request to change the status of a particular field order.

! Important Note on Limitations of this Function

Although the Supervisor FO Status Request function allows mobile supervisors to reassign orders, it is always best to use the Dispatch Workstation to handle redistribution of work for the following reasons:

- This function only allows you to allocate and reallocate/dispatch work for the current day's shift. You cannot assign work to a crew whose shift is in the past or the future.
- If the system is unable to reassign the work for any reason, the assignments typically revert back to their original state. No notification is sent to the mobile supervisor or the dispatcher to indicate that the reassignments failed.

Data Fields

Data fields are described below:

Field Name	Description
My Crews	Lists all the crews associated with the Supervisor.
Unassign	Indicates the status of the field order is to be changed to 'Unassign'.
Allocate	Indicates the status of the field order is to be changed to 'Allocated'.
Reallocate/Dispatch	Indicates the status of the field order is to be changed to 'Reallocate/Dispatch'.
Enroute(Non-MDT only)	Indicates the status of the field order is to be changed to 'Enroute'.
Start(Non-MDT only)	Indicates the status of the BREAK is to be changed to 'Onsite'.

Field Name	Description
Onsite(Non-MDT only)	Indicates the status of the field order is to be changed to 'Onsite'.
Update ERT(Non-MDT only)	Indicates that ERT should be updated.
Cancel Status(Non-MDT only)	Indicates that the status should be cancelled.
ETA	The estimated time of arrival entered as estimated travel duration.
ERT	The estimated restoration time entered as job duration.

Interfaces

The updated order data will be sent back to the Server application for processing. There is no notification when the status ICD is sent and received. The crew detail is updated and redisplayed.

Validation

None.

Data Updates

None

Emergency Order Acknowledgment

Emergency order - UPDATE

Press ok to acknowledge:

OK

Fo Num 000011933

Address 741 OLD STAGE RD

Remarks

Function/Process Description

The Emergency Order Acknowledgement function forces the user to manually acknowledge the receipt of an emergency order. When an emergency order is received in the mobile device, this screen is displayed on top of any current screen. The user must close this screen before they continue with their current processing. If the user fails to acknowledge this screen within the specified time limit, the screen is automatically dismissed.

The time limit for this screen is specified in the Mobile Workstation logon reply transaction sent from the Server. The progress bar will progress across the screen as the timer counts down. The screen will remain displayed on the screen until the timer expires (e.g. progress bar full). If the timer expires, the emergency order is considered “undispatched” and not kept on the mobile device. When the Server detects the timer has expired, the tracking status of the order will be reset to “A” (assigned) and the appropriate Dispatch Workstation user will be notified that the order was not manually acknowledged by the crew.

If the user presses the OK button before the time expires, an emergency order acknowledgment transaction is sent to the Server for processing. The time the user manually acknowledged the order is stored in the database with the field order and its tracking status is changed “K” (acknowledged). Notification is sent to all appropriate logged on Dispatch Workstation users and the Router indicating the order has been manually acknowledged. A message stating ‘the order was manually acknowledged’ will be displayed in the Audit list on the Server application.

Data Fields

Data fields are described below:

Field Name	Description
FO Num	Oracle Utilities Mobile Workforce Management order number.

Field Name	Description
Address	Customer's service address on the order. This field includes the customer's service address, city, and state.
Remarks	The comments (order remarks) associated with the order

Interfaces

The emergency order acknowledgment transaction is sent to the Server for processing. The database is updated and notification that the crew manually acknowledged the order is sent to the appropriate logged-on Dispatch Workstation users and the Router. The Server writes a message to the audit list box and log stating that the crew has manually acknowledged the order.

If the timer expires before the user manually acknowledges the emergency order, the order is deleted from the mobile device. When the Server detects that the timer has expired, the order's tracking status is reset to assign and notification is sent to the appropriate logged-on Dispatch Workstation users.

Validation

None

Data Updates

If the order is manually acknowledged, the tracking status is set to "K" and the Mobile Emergency Ack Time is updated on the field order scheduling database table (DHTFOSCH) for the appropriate field order.

If the order is NOT manually acknowledged, the tracking status is reset to "A" on the DHTFOSCH table for the appropriate field order.

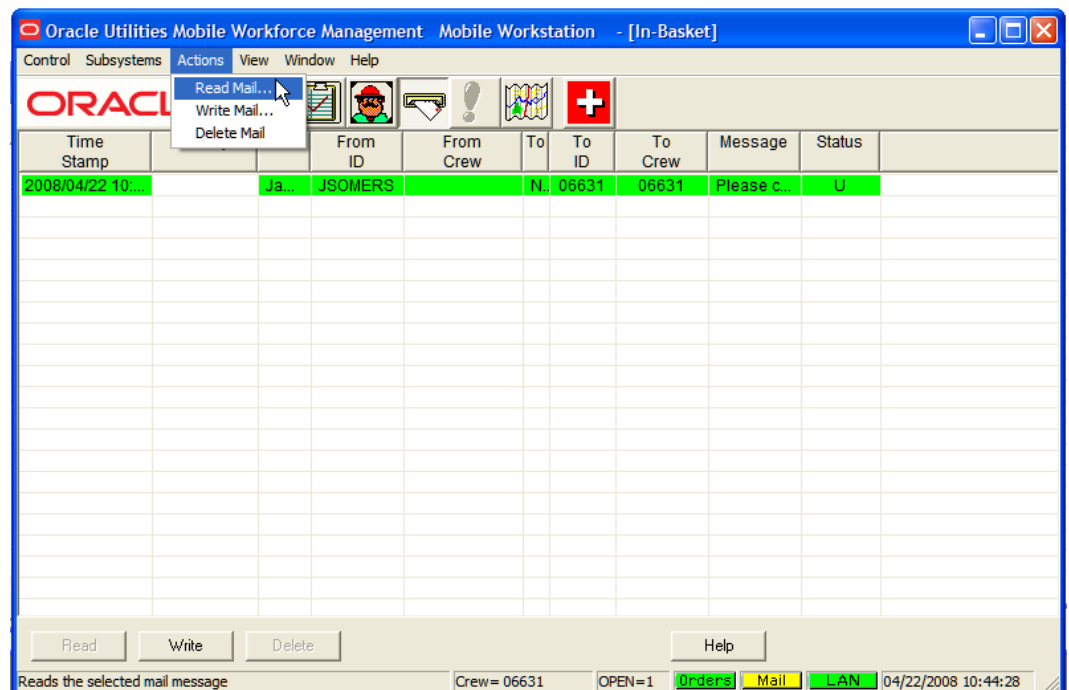
Chapter 4

Mail Subsystem

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

- Mail Menus
- Mail List
- Read Mail
- Write Mail
- Reply Mail
- Forward Mail
- Emergency Mail Acknowledgment

Mail Menus



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 4-6.

Write Mail...

This menu item is always enabled. When selected, the Write Mail screen is displayed. Refer to **Write Mail** on page 4-8.

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.

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 DHTMWINI table are used to populate the Set Display Columns screen. Refer to **Set Display Columns Screen** on page 7-183 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 hard drive. The Mail subsystem options selected (e.g. display columns, width, sequence, and font) are stored on the hard drive 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 Mobile 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

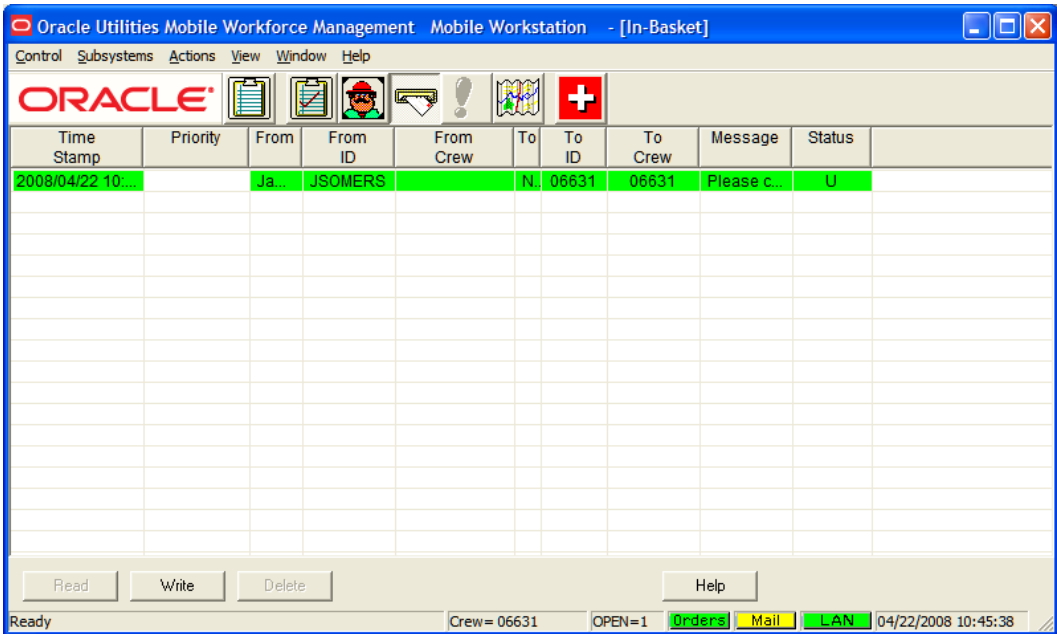
Function dependent. Refer to the specific mail function for data update details.

Mail List

The main element of the Mail subsystem is the Mail List.

Function/Process Description

The Mail List is automatically displayed when the mail subsystem is started.



The Mail list provides a tabular display of mail messages. The Mail list is capable of displaying all the undeleted mail messages that have been received by the logged on user. Once a mail message has been deleted, it is no longer available for display in the mail list. The mail messages are color-coded based on read status. Unread messages are green and read messages are white.

The user has the option to change the mail 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 cannot change the sort order of the messages in the mail list. The messages always sort in the same sequence: Read Status (unread/read), Priority (emergency/call first/regular), and date/time.

The user has the option of changing the width of the mail 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 mail text (e.g. Large, Medium, and Small) by selecting the 'Font' menu item under the View menu item.

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

The user can read mail message by double clicking on the selected message in the list. The mail message will be displayed on the Read Mail screen.

Buttons

The Mail list has seven buttons at the bottom of the screen. Some of these buttons are duplicates of Action menu items.

Data Fields

Button	Description
Read	This button 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 4-6.
Write	This button is always enabled. When selected, the Write Mail screen is displayed. Refer to Write Mail on page 4-8.
Delete	This button 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 a mail message update transaction is sent to the Server for processing.
Help	This button is enabled at all times. When selected, the online help facility is invoked.

The Mobile Workstation Mail list uses the same columns as the Dispatch Workstation Mail list. Refer to **Mail List** on page 4-4 for a list of columns.

Interfaces

The mail messages are retrieved from the Server application and 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, an update mail message transaction is sent to the Server for processing. The Server will update the Delete flag in the database for the specified message.

Validation

None

Data Updates

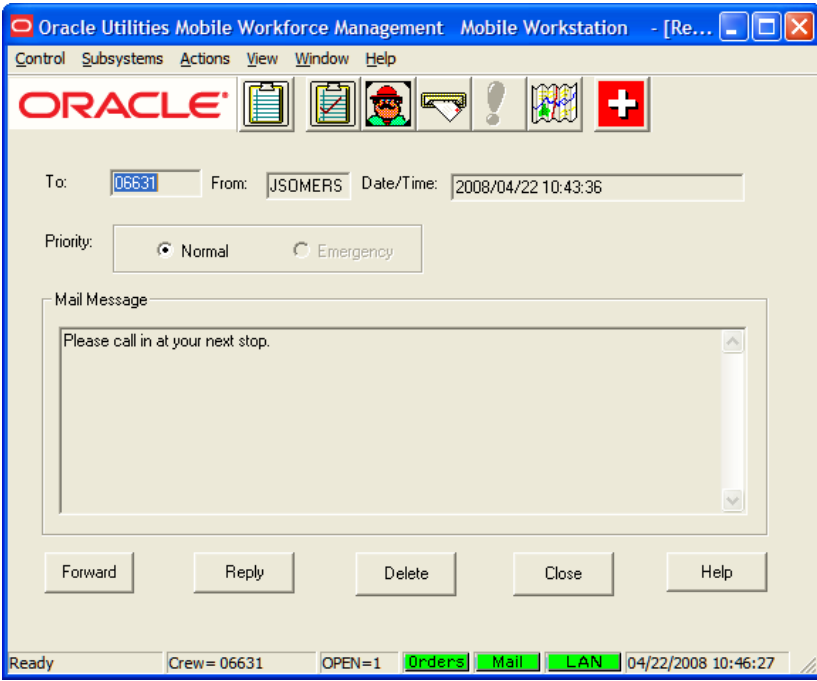
All the data in this list is read-only, so no data is updated. All updates to the mail database tables are performed by the Server application.

Read Mail

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

Function/Process Description

The Read Mail function is accessible by selecting the Read Mail menu item in the Mail subsystem, the Read button on the mail list, or by double clicking on a mail message in the mail list.



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

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

Buttons

The Read Mail screen has the following buttons:

Button	Description
Forward	This button allows the user to forward the mail message to another user or users. When selected, the mail message is displayed in the Forward Mail screen. Refer to Forward Mail on page 4-12 for more details.
Reply	This button allows the user to reply to the mail message. When selected, the mail message is displayed in the Reply Mail screen. Refer to Reply Mail on page 4-10 for more details.
Delete	This button 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.
Close	This button is used to close the Read Mail screen. When selected, the user is returned to the mail list.
Help	This button is enabled at all times. When selected, the online help facility is invoked.

Interfaces

The Mobile Workstation application will read the mail data directly from the hard drive. An update mail message transaction, indicating that the message was read, is generated and sent to the Server for processing. The Server forwards the update mail message transaction to the sender of the mail message.

Validation

None

Data Updates

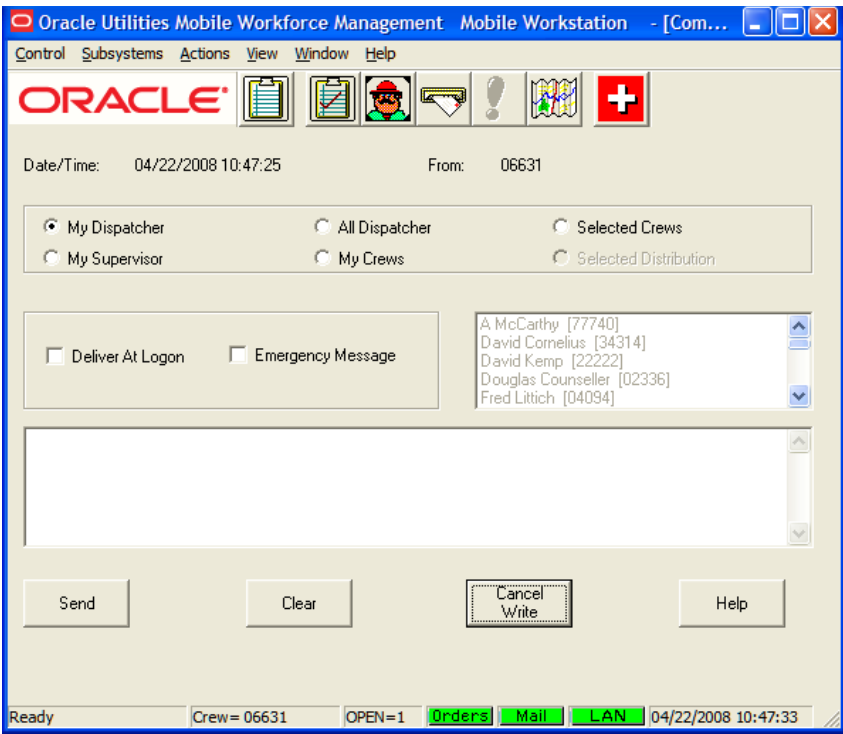
The Server will update the Read Status of the mail message on the database to read.

Write Mail

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

Function/Process Description

The Write Mail function is accessible by selecting the Write Mail menu item in the Mail subsystem or the Write button on the mail list.



Use the option buttons at the top of the screen to select recipients. Use the edit box in the bottom portion of the screen to compose your email 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).
All Dispatcher	Indicates the mail is to be sent to all logged-on dispatchers.
Selected Crews (Users)	The user will select this button if the mail message is to be sent to specific crews (users). If the logged on user is a service supervisor, the text will be 'Crews'; otherwise, it will be 'Users'. When the button is selected, the Selected Crews (Users) list box will be populated.
My Supervisor	Indicates the mail is to be sent to my supervisor.

Field Name	Description
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. Only visible if the logged on user is a service supervisor.
Selected Distribution	This button is always disabled on the Mobile Workstation application.
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 Crews/ Users	The contents of this list box will depend on whether the logged on user is service supervisor (DHTCREW) or a service representative (DHTPERS).
Message text	The mail message 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 all selections and data on the screen to be cleared.
Cancel Write	This button is used to cancel the Write Mail function. When selected, the user is returned to the mail list.
Help	This button is enabled at all times. When selected, the online help facility is invoked.

Interfaces

A mail message transaction is generated and sent to the Server for processing based on the selection made. If My Dispatchers, All Dispatchers, My supervisor, or My Crews is selected, a single mail message transaction is sent to the server. The server will create a separate mail message for each logged on user meeting the selection. If selected crew/user is selected, a separate mail message transaction is created for each selected user in the selected user list. 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 My Crews button is visible if the access level of the logged-on user is Service Supervisor; otherwise, it is not shown. The user must enter message text. If Selected Crews/Users is selected, the user must select at least one name from the Selected Crews/Users list.

Data Updates

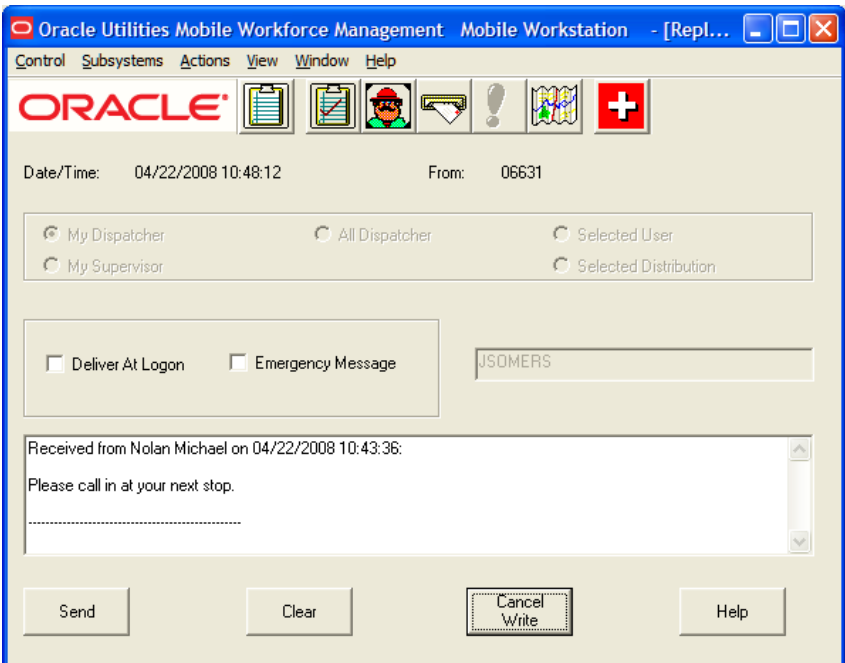
The Server will add the new mail message(s) to the database.

Reply Mail

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

Function/Process Description

This function is accessible by selecting the Reply button on the Read Mail screen.



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

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 Write	This button is used to cancel the Reply Mail function. When selected, the user is returned to the Read Mail screen.
Help	This button is enabled at all times. When selected, the online help facility is invoked.

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 Crews (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
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 Crews/ Users	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.

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

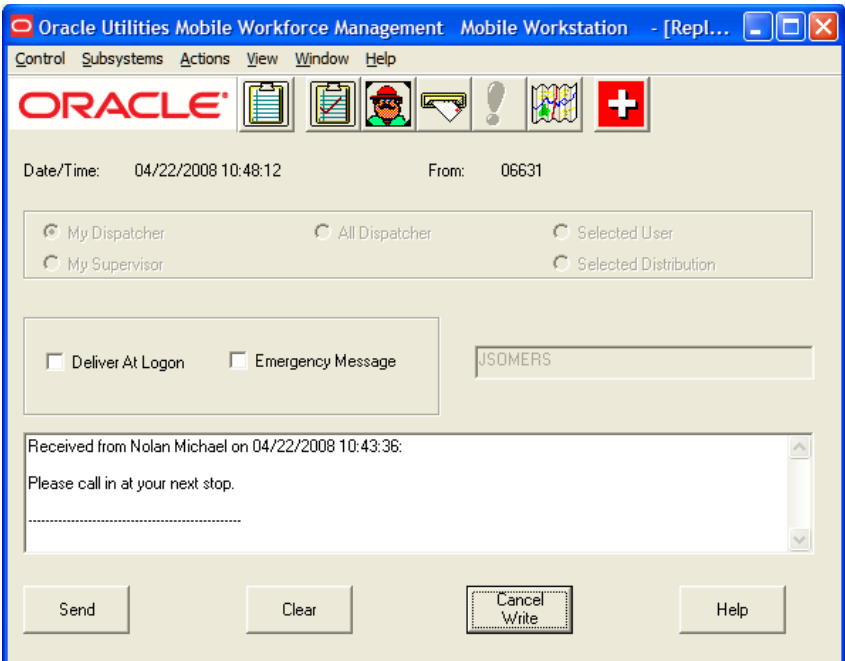
The Server will add the new mail message to the database.

Forward Mail

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

Function/Process Description

This function is accessible by selecting the Forward button on the Read Mail screen.



Use the edit box in 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).
All Dispatcher	Indicates the mail is to be sent to all logged-on dispatchers.
Selected Crews (Users)	The user will select this button if the mail message is to be sent to specific crews (users). If the logged on user is a service supervisor, the text will be 'Crews'; otherwise, it will be 'Users'. When the button is selected, the Selected Crews (Users) list box will be populated.
My Supervisor	Indicates the mail is to be sent to my supervisor.

Field Name	Description
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. Only visible if the logged on user is a service supervisor.
Selected Distribution	This button is always disabled on the Mobile Workstation application.
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 Crews/Users	The contents of this list box will depend on whether the logged on user is service supervisor (DHTCREW) or a service representative (DHTPERS).
Message text	The original mail message text is displayed. The user can modify this text.

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 selected, the user is returned to the Read Mail screen.
Help	This button is enabled at all times. When selected, 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 distribution list has three selections: All Dispatchers, All Service Reps and All Service Supervisors. 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 My Crews button is visible if the access level of the logged-on user is Service Supervisor; otherwise, it is not shown.

The user must enter message text. If Selected Crews/Users is selected, the user must select at least one name from the Selected Crews/Users list.

Data Updates

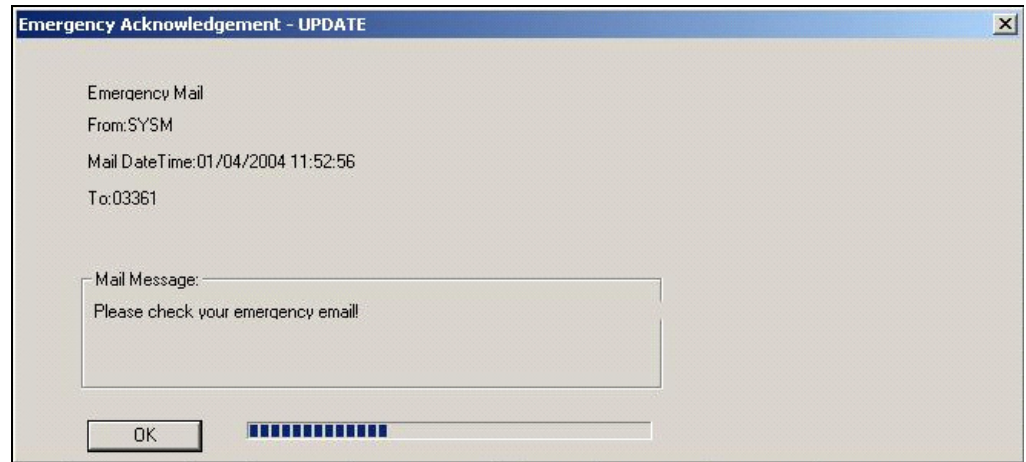
The Server will add the new mail message(s) to the database.

Emergency Mail Acknowledgment

The Emergency Mail Acknowledgement function requests the user to manually acknowledge the receipt of an emergency mail message.

Function/Process Description

When an emergency mail message is received in the mobile device, the Emergency Mail Acknowledgement screen is displayed on top of any current screen.



The user must close this screen before they continue with their current processing. If the user fails to acknowledge this screen within the specified time limit, the screen is automatically dismissed.

The time limit for this screen is specified in the Mobile Workstation logon reply transaction. The progress bar will progress across the screen as the timer counts down. The screen will remain displayed on the screen until the timer expires (e.g. progress bar full). If the timer expires, the emergency mail message remains on the mobile device. When the Server detects the timer has expired, the sender of the mail message will be notified that the mail message was not manually acknowledged.

If the user presses the OK button before the time expires, an emergency mail acknowledgment transaction is sent to the Server for processing. The processing for the emergency mail acknowledgment transaction is to stop the Server from waiting for the manual acknowledgement.

Data Fields

Data fields are described below:

Field Name	Description
From	The id of the user that sent the emergency message.
Mail Date Time	The date/time the emergency message was sent.
To	The id of the recipient of the emergency message.
Mail Message	The text of the emergency message.

Interfaces

The emergency mail acknowledgment transaction is sent to the Server for processing. The only processing is to stop the Server from waiting for the manual acknowledgment.

If the timer expires before the user manually acknowledges the emergency mail message, the mail message remains on the mobile device. When the Server detects that the timer has expired, the sender of the mail message is notified that the crew did not manually acknowledge the message.

Validation

None

Data Updates

None

Chapter 5

Mapping Subsystem

The Mapping subsystem provides a graphical display of field orders and crews. This chapter includes the following topics:

- **MapViewer Overview**
- **Mapping Toolbar**
- **Reference Map**
- **Pop-Up Menus**

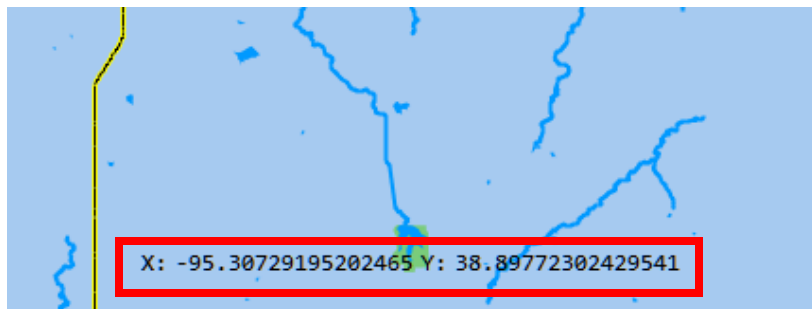
MapViewer Overview

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 dispatched to the currently logged-on crew and also displays the current crew's location.

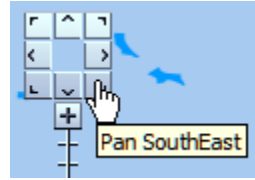
The user can do any of the following to change the map display:



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

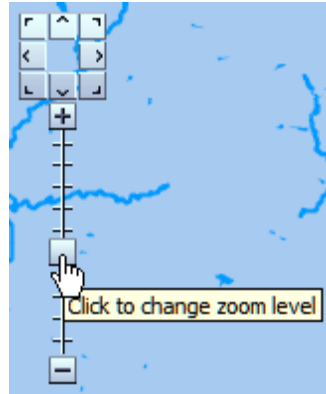


- **Center on location:** Double-click a point on the map to center the map on that location.
- **Move map within window:** Click and drag any point on the map to move it to a different position within the window.

- **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:



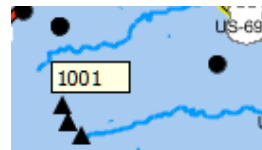
- **Display field order number:** Hover over a field order (triangle symbol) to display the field order number:



- **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.

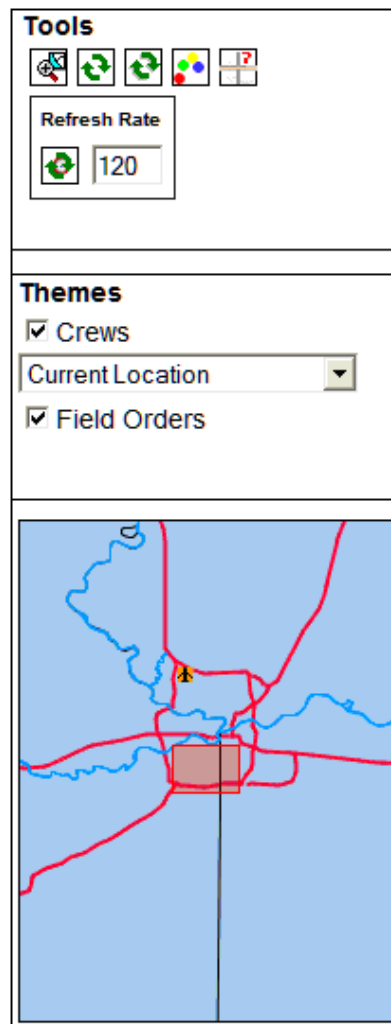


- **Display crew details:** Click a crew to display crew details:

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

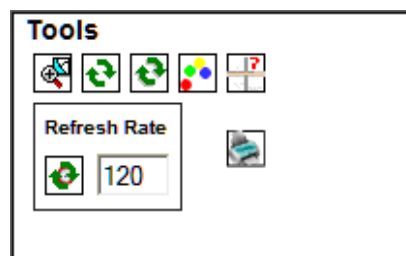
The Mapping subsystem has no Action or View menu. All functions are performed by toolbar options, as described in the following section.

Mapping Toolbar




The toolbar appears on the left side of the mapping screen. 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.

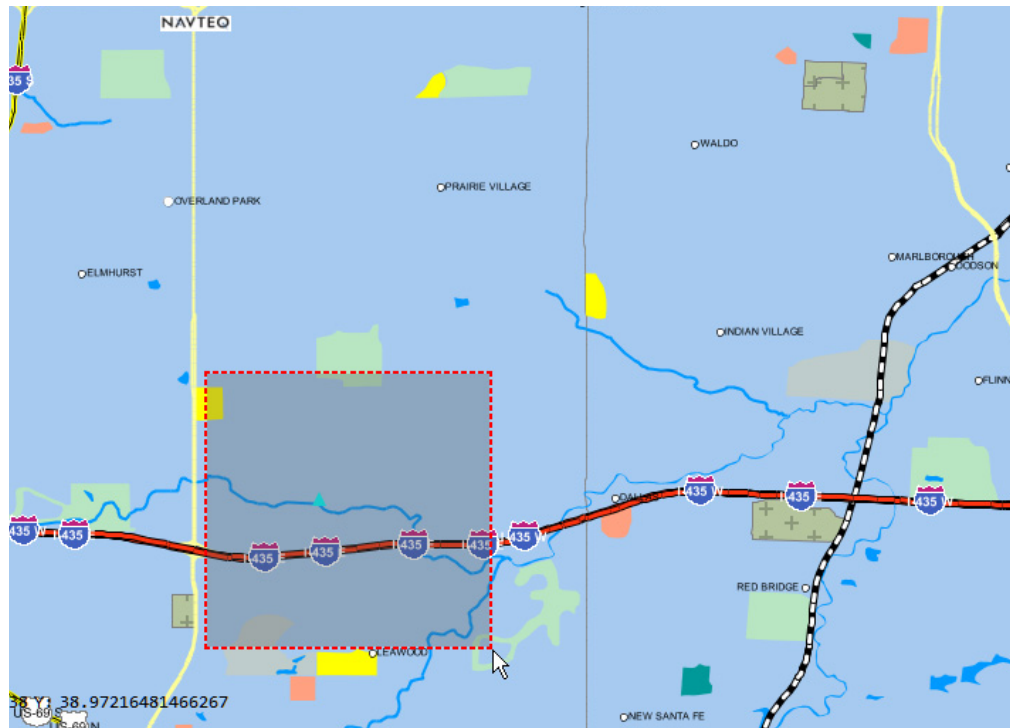
Tools



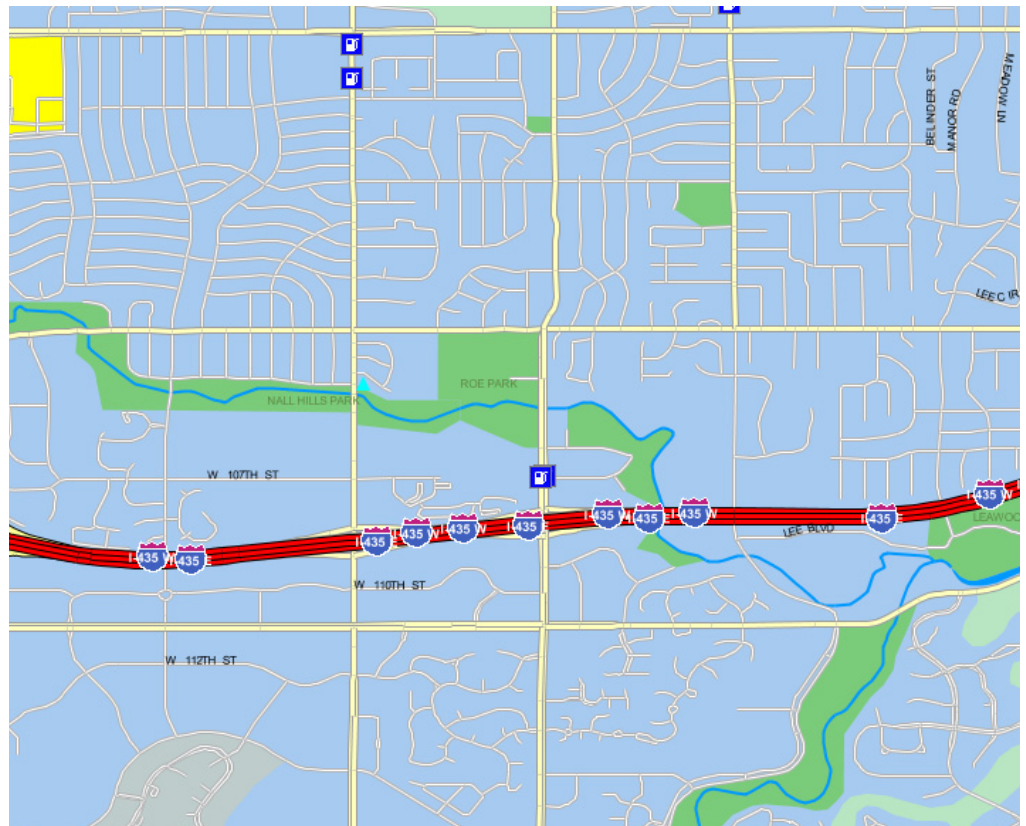
Zoom to Rectangle

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

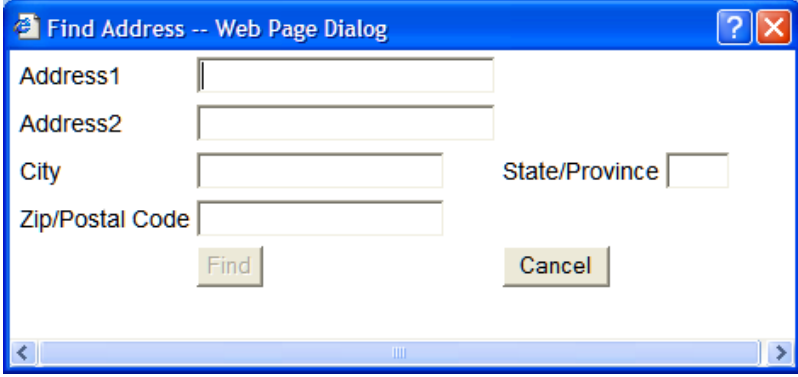
The  button displays the map legend, as shown in the following figure. The map legend lists the status codes that correspond to the various colors used for the crew and field order map symbols.

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:



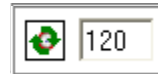
The image shows a Windows-style dialog box titled "Find Address -- Web Page Dialog". It contains five text input fields: "Address1", "Address2", "City", "Zip/Postal Code", and "State/Province". Below the "City" and "Zip/Postal Code" fields are two buttons: "Find" and "Cancel". The dialog has a standard Windows title bar with a question mark icon and a close button (X).

Figure 60 – Find Address

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.

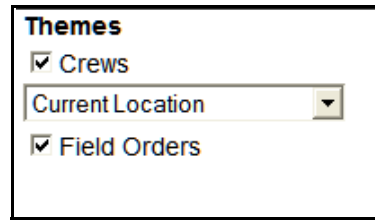
Refresh Rate

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.



Themes

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



Crews checkbox: Allows users to show or hide crews from the map display. When checked, crews are displayed based on the theme selected in the Crews drop-down list. This box is checked by default.

Crews drop-down list: Allows the user to select which crews to display on the map. Selections are considered themes:

- **Current Location:** Displays the current crew's location. This is the default.
- **Other Service Area Crews:** Displays all crews in the current service area.
- **All Supervised Crews:** This option is only displayed if the user's access level is Service Supervisor. If selected, this option displays all crews under the user's supervision.

Field Orders checkbox: Allows the user to show or hide field orders from the map display. If unchecked, no field orders are displayed on the map. This box is checked by default.

For users with an access level of Service Supervisor, a Field Order drop-down list allows the user to select one of the following order themes: **Current Orders** (the default) or **All Supervised Orders** (all orders for crews under the user's supervision).

Note: Field order themes show only completed and incompletd orders for the current date.

The map is refreshed automatically when the user changes theme settings.

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 in the following figure:

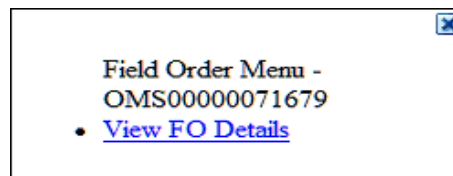


The user can click and drag the reference map to change the display area. The user can also double-click an area to move it to the center of the map.

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:

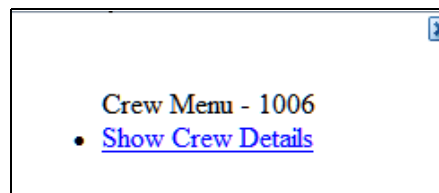


View FO Details

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

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 3-1 for more details on browsing field orders.

Data Fields

Field Order Detail

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.
Latitude	The latitude of the field order address.
Longitude	The longitude of the field order address.

Crew Detail

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 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 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 Mobile Workstation application reads the field order directly from the mobile's hard drive and the data is not updated in this function. DHTMAPFOMAP contains the list of orders that are in each user's Open/Work Orders list. When this list changes for a user, DHTMAPFOMAP is updated by the server. MapViewer accesses DHTMAPFOMAP to determine which orders to display and thus displays only those orders that are in a user's Open/Work Orders list.

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 6

Warnings and Notifications

This chapter covers warnings and notifications generated by the Oracle Utilities Mobile Workforce Management system. It includes the following topics:

- **Missed Appointment Warning**
- **Missed Commitment Warning**
- **User Notification**

Missed Appointment Warning

Danger of Missing Appointment

The appointment time for the following order is in danger of being missed:

Crew Data

Crew ID: Tech ID: Pager/Cell Phone Nbr:
Vehicle ID: Tech Name:

Field Order Data

Fo Number: CIS Number: Svc Area:
Service Address:

Customer Data

Customer Name:
Service Phone:
Contact Phone:

Appointment Data

Current Time:
Appointment Start Time:
Appointment Finish Time:

Function/Process Description

The Missed Appointment Warning function notifies the crew that they are in danger of missing an appointment. The Server will generate the warning 'x' minutes before the appointment end time if the crew is not yet onsite to the order. The number of minutes before the appointment end time is specified in the warning notification buffer (ApptNotificationBuffer) parameter in the Server.ini file.

The Server sends the warning to the appropriate logged-on Dispatch Workstation users and to the assigned crew, if they are communicating wirelessly.

This screen is displayed on top of any current screen. The user must close this screen by pressing the OK button before they continue with their current processing.

Data Fields

Data fields are described below:

Field Name	Description
Crew ID	The id of the crew who is assigned to the order.
Tech ID	The id of the user assigned to the crew
Pager/Cell Phone Number	The primary cell/pager phone number of the user assigned to the crew
Vehicle ID	The id of the vehicle that the crew is currently using
FO Number	The Oracle Utilities Mobile Workforce Management number of the order that is in danger of having its appointment missed.
Host System Number	The Host System number of the order that is in danger of having its appointment missed.
Service Area	The service area of the order that is in danger of having its appointment missed.
Service Address	The service address of the order that is in danger of having its appointment missed.
Customer Name	The name of the customer on the order that is in danger of having its appointment missed.
Service Phone	The service phone of the customer on the order that is in danger of having its appointment missed.
Contact Phone	The contact phone of the customer on the order that is in danger of having its appointment missed.
Current Time	The current time.
Appointment Start Time	The appointment start time on the order that is in danger of having its appointment missed.
Appointment Finish Time	The appointment finish time on the order that is in danger of having its appointment missed.

Interfaces

When the Server detects that an order's appointment is in danger of being missed, a Missed Appointment Warning is generated. The Missed Appointment Warning is sent to all appropriate logged-on Dispatch Workstation users. Additionally, if the assigned crew is communicating wirelessly, the warning is sent to the crew.

Validation

None

Data Updates

None

Missed Commitment Warning

Danger of Missing Commitment

The commitment time for the following order is in danger of being missed:

Crew Data

Crew ID: Tech ID: Pager/Cell Phone Nbr:
 Vehicle ID: Tech Name:

Field Order Data

Fo Number: CIS Number: Svc Area:
 Service Address:

Customer Data

Customer Name:
 Service Phone:
 Contact Phone:

Commitment Data

Current Time:
 Commitment Date:
 Commitment Time:

Function/Process Description

This Missed Commitment Warning function notifies the crew that they are in danger of missing a commitment. The Server will generate the warning 'x' minutes before the commitment time if the crew is not yet completed the order. The number of minutes before the commitment time is specified in the warning notification buffer (ApptNotificationBuffer) parameter in the Server.ini file.

The Server sends the warning to the appropriate logged-on Dispatch Workstation users and to the assigned crew, if they are communicating wirelessly.

This screen is displayed on top of any current screen. The user must close this screen by pressing the OK button before they continue with their current processing.

Data Fields

Data fields are described below:

Field Name	Description
Crew ID	The id of the crew who is assigned to the order.
Tech ID	The id of the user assigned to the crew
Pager/Cell Phone Number	The primary cell/pager phone number of the user assigned to the crew
Vehicle ID	The id of the vehicle that the crew is currently using
FO Number	The Oracle Utilities Mobile Workforce Management number of the order that is in danger of having its Commitment missed.
Host System Number	The Host System number of the order that is in danger of having its Commitment missed.

Field Name	Description
Service Area	The service area of the order that is in danger of having its Commitment missed.
Service Address	The service address of the order that is in danger of having its Commitment missed.
Customer Name	The name of the customer on the order that is in danger of having its Commitment missed.
Service Phone	The service phone of the customer on the order that is in danger of having its Commitment missed.
Contact Phone	The contact phone of the customer on the order that is in danger of having its Commitment missed.
Current Time	The current time.
Commitment Date	The Commitment date on the order that is in danger of having its Commitment missed.
Commitment Time	The Commitment time on the order that is in danger of having its Commitment missed.

Interfaces

When the Server detects that an order's commitment is in danger of being missed, a Missed Commitment Warning is generated. The Missed Commitment Warning is sent to all appropriate logged-on Dispatch Workstation users. Additionally, if the assigned crew is communicating wirelessly, the warning is sent to the crew.

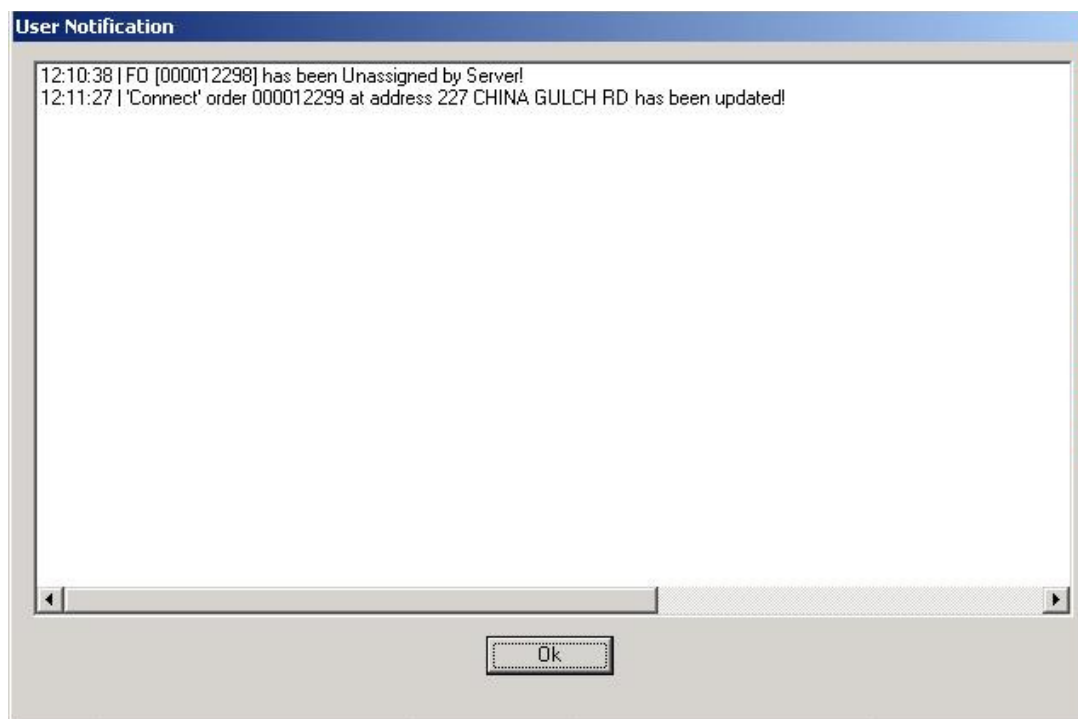
Validation

None

Data Updates

None

User Notification



Function/Process Description

The User Notification function is used to display notification messages to the logged-on crew. The user notification function uses a generic notification screen that displays strings of message text. A variety of messages can be displayed, including order update, order cancelled, and new order or mail received. As long as the screen is displayed, new messages can be added to the list. Only one user notification screen will be displayed at one time.

This screen is displayed on top of any current screen. The user must close this screen by pressing the OK button before they continue with their current processing. This screen has no additional functionality.

Data Fields

Data fields are described below:

Field Name	Description
Time	The time the message was displayed.
Message	The text of the message

Interfaces

User notification messages are displayed when specific events happen. For example, a user notification message is sent when any of the following occurs:

- A new order is received on the mobile unit, other than the initial download of order
- A new mail message is received.
- An order has been cancelled by the dispatcher or an external application

- An order has been unassigned and recalled by the Server
- An order, which has already been dispatched, to the mobile device is updated.

Validation

None

Data Updates

None

Chapter 7

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 and standard Windows window controls. The window is divided into several sections:

- Customer Information:** Contains fields for "000000000000023580", "4028424978", and "KELSEY,SANGKI 4807 W 83RD ST Prairie Village, KS". There are also "Conn:" and "Disc:" checkboxes.
- Order Information:** Contains fields for "4604315377", "MR01", "Requested By:", "Req Desc:", "Day:", "Evening: (555) 573-4422", "Other:", "Comments", "Appt. Time:", "Commit Time: 2006-10-27 23:59", and "Life Support:".
- Site Information:** Contains fields for "Directions:", "Facility Point:", "Service Desc:", "Service Status:", "Svc Fac:", and a "Landlord Agreement" checkbox.
- Status Times:** Contains fields for "Disp:", "Ack:", "Enroute:", "Onsite:", and "Cmpl:".

At the bottom of the window, there is a grid of buttons: "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.

Field Name	Description
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	<p>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.</p> <p>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.</p>

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)

Common View Screen

Customer Information

000000000000023846

101 102 8th St

Conn: Disc:

Site Information

Directions:

Facility Point:

Service Desc:

Service Status:

Svc Fac:

☐ Landlord Agreement

Order Information

01-0800643-01 \$

Requested By:

Req Desc:

Day:

Evening:

Other:

Comments: MWM/WAM; Mat'ls, Notes, Asset, Type E edit

Appt. Time:

Commit Time: 2008-08-12 01:16

Life Support:

Status Times

Disp: 20:16 Ack: Enroute: 20:16 Onsite: 20:19 Cmpl: 20:20

Buttons: Send, Common View, Detail View, Order Header, Stock Charges, Direct Charges, Crew Time, Cancel, Notes, Material

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.

Button Name	Button Description
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". It contains several input fields and sections:

- Customer Information:** Name (MARTIN LEE), Order Type (CO Health Symptoms), Primary Phone (empty), Address (1200 GREEN PARK DR CENTRAL POINT,OR), City (empty), Appt. (08:00 - 18:00), Requested By Phone (5031112222).
- Bill Account:** Account (32523371-0), Primary Circuit (empty), District (111), Zone (/Rec - OR - 11146), House (empty), Key # (empty), Key At (empty), Prem (empty), 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, there 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	

Field Name	Description
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

Button Name	Description
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". It contains several input fields and a "Close" button at the bottom right. The fields are populated with the following data:

- Top left: 000012896
- Top middle: 000000000965745444-001 CRO
- Top right: 61758580-001-0001 Chk Digit: ☐
- Customer Address (top right): 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.

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.

The screenshot shows a software window titled "Monitor Screen". At the top, there's a blue header bar with the title and standard window controls (minimize, maximize, close). Below the header, there's a label "Addr:" followed by a text box containing "1200 GREEN PARK DR".

Main content area:

- Wall Check / Bar Hole Information**: This section contains two side-by-side tables.
- Wall Check Information Table**:

Time	CGI	% Gas	% LEL
11:11:00	N	7	8
11:16:00	N	14	3
11:21:00	N	11	5
- Bar Hole Information Table**:

Time	URD	% Gas	% LEL
11:11:00	N	3	14
11:16:00	N	2	16
11:21:00	N	6	16

At the bottom center, there is a button labeled "Close".

Function/Process Description

All data on this screen is read-only.

Data Fields

None.

Buttons

Button Name	Description
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.

Meter Information Screen (option 1)

Meter Information Screen

Meter Details

Meter Number: 21444022 Phase: 3
Form: 09S MERC:
Meter Loc: CABINET OR CLOSET
Rate Sched: 01GNSV0027
Route ID: 11146-477
Meter Access 1:
Meter Access 2: RIGHT
Special Instr: THRU TO NW BLDG.....3READS

Previous Reading Information

Register	Last Rd Date	Last Read
KVAR	2003/06/23 00:00:00	002460
KW	2003/06/23 00:00:00	003748
KWH	2003/06/23 00:00:00	017703

Buttons: Send, Common View, Detail View, Order Header, Meter Information, Usage History, Crew Time, Cancel, Equipment, Dispatch, Reassign, Cancel Order

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.

Field Name	Description
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

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. 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)

Meter Info Screen

Name: MARTIN LEE Order Type: CO Health Symptoms Service:
Addr: 1200 GREEN PARK DR CENTRAL POINT, OR Contact: 5031112222
City: Appt.: 08:00 - 18:00

Select Meter
0N497624G Status: Rem Port: Service Point Type: Gas
Mfr.: Loc: BASEMENT Read Date: Phase: Single Phas

Reading Usage	Reading Type	Mult	Dials	Last Reading

Meter Read Instructions: FIELD

Premise Information
☐ Estimated Meter at Premise
Acct Type: Premise Entrance:
Modify Close

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.

Field Name	Description
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 (DHTMTRL0) 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

Button Name	Description
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.

[illegible]

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.
Elpsed 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.

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

WOT: N 0800500 01 FO#: 00000000000002371 Priority: 3 Crew: Due on: 2008/07/31 00:00

Note Type	Description
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Buttons: Send, Common View, Detail View, Order Header, Stock Charges, Direct Charges, Crew Time, Cancel, Notes, Material

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 FO#: 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.

Field Name	Field Description
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

Button Name	Button Description
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.

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.

Field Name	Description
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	<p>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.</p> <p>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.</p>

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

Gas Emergency Information Screen

Name:

Order Type: Extreme/Life Threatning

Service

Addr: PAPA_05

Contact:

City:

Leak Log#:

Select Meter

Status Found:

Location

Status Left: Active\TurnedO

AMR #:

Rem

Order Information

Estimated Read at Premise

Act Type:

Premise Entrance:

Order Remarks:

Reading

Usage CD/Type:

Dials:

Read:

Reason:

Completion Info

Complete

Incomplete

Reason:

Completion Remarks:

Click to Choose Completion Reasons

Supervisor Review:

Follow-up Required

Pick Up

Billable

Enroute

Date:

Time:

Arrive

Date:

Time:

Send

Page 2

Common View

Meter Info

AMR

Crew Time

Cancel

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.

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Field Name	Description
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 incompletion 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	<p>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.</p> <p>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.</p>

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

Meter Read Information Screen

Name:

Order Type:

Service:

Addr:

Contact:

City:

Appt.:

Select Meter

Status Found:

Location:

Status Left:

AMR

Rem Port:

Reading

Usage CD/Type:

Dials:

Read:

Reason:

Completion Info

Complete

Incomplete

Reason:

Completion Remarks:

Click to Choose Completion Reasons

Supervisor Review:

Follow-up Required

Pick Up

Billable

Order Information

Estimated Read at Premise

Act Type:

Premise Entrance:

Order Remarks:

Meter Test

Test Reason:

Irreq Test Cond:

Seal Codes

Inner:

Demand:

Socket:

Send

Common Info

Meter Info

Gas Check

Gas WarnTag

Electric WarnTag

Crew Time

Cancel

AMR

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.

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.
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 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 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 99999999.9999999. 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 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 wathour 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

POU/Break Detail Screen

Schedule From: 2007/05/03 11:00:00

Schedule End: 2007/05/03 12:00:00

Address: POU/BREAK...

Remarks:

Complete Cancel

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#: 0000000000000236E Priority: 3 Crew: DEMO4 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.

Field Name	Field Description
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.

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.
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	Cancels any changes entered on the screen and returns the user to the field order list. 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.
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

Primary Detail Completion Screen

Order Type: Read Meter

Service Point

Service Point Id:

Disconnect Loc:

Type:

Current Meter/Item

Badge Number:

Stock Loc:

Config Type:

Register:

Reading:

Override?

Install Meter/Item

Badge Number:

Status:

Config Type:

Register:

Reading:

Completion Info

☐ Complete

☐ Incomplete

☐ Billable

☐ Pick Up

Incompletion Reason:

Standard Remarks Text:

Remarks:

Supervisor Review Required?

Send

Common View

Detail View

Order Header

Meter Information

Usage History

Crew Time

Cancel

Cost Information

Verify

Dispatch

Reassign

Cancel Order

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.

Field Name	Description
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 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

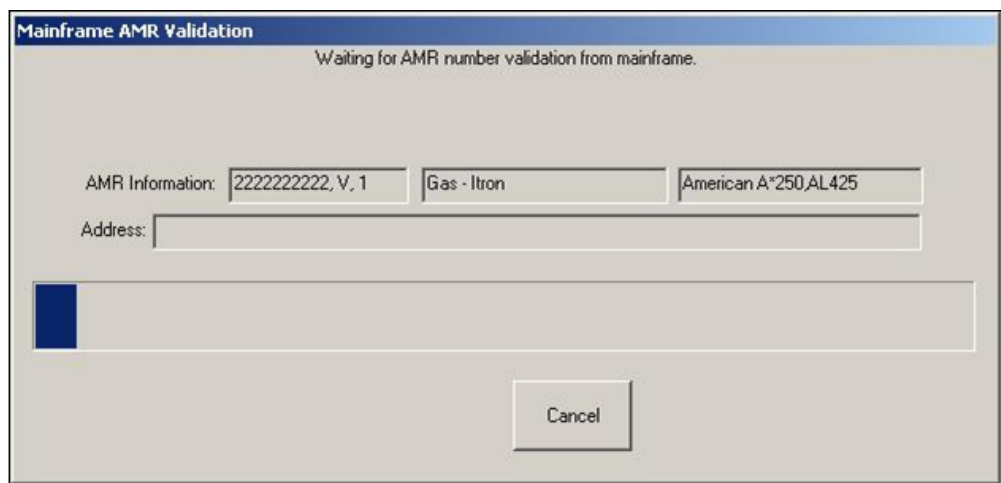
The Dispatch Workstation application reads the field order data directly from the database and stores the data temporarily on the hard drive. The Mobile Workstation application reads the field order data directly from a file on the hard drive. The screen is populated from the field order on the hard 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 screenshot shows a 'Mainframe AMR Validation' dialog box. At the top, a blue header bar contains the title 'Mainframe AMR Validation'. Below the header, a status message reads 'Waiting for AMR number validation from mainframe.' The form contains three input fields for 'AMR Information': the first contains '2222222222, V, 1', the second contains 'Gas - Itron', and the third contains 'American A*250,AL425'. Below these is a single-line 'Address:' field. A large, empty rectangular box with a blue vertical bar on its left side is positioned below the address field. At the bottom right of the dialog is a 'Cancel' button.

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 shows 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: (dropdown), 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: (dropdown), Scan Card button, Type: (dropdown), Card No.: (dropdown), Expiration: (Month/Year dropdowns), Verify Credit Card button, Auth #: (dropdown), Print Receipt button, Capture Signature button.

At the bottom are navigation buttons: 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

Damage Location

Crew ID:

Mobile #:

Report Date:

Report Time:

Feeder:

Device:

Event #:

Map Page/Grid:

Location:

City:

Company:

Region:

Branch:

Substation:

Damage Specifics

Est. Crew Repair Hours:

Affected Section:

Phase Affected:

Location:

Load Affected:

Type of Crew Needed:

☐ Tree Crew Required

☐ Street Light Damage Noted

Count:

☐ Accessible?

Comments:

Damage Type

Count

Accessible?

Items

Listbox

Sample

tab|tab|tab

Add

Modify

Delete

Damage Type:

Required Material

Part ID

Part Name

Quantity

Comments

Items

Listbox

Sample

tab|tab|tab

Add

Modify

Delete

Part ID

Part Name

Qty

OK

Cancel

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

Electric Warning Tag

Name: MARTIN LEE

Order Type: CO Health Symptoms

Service:

Addr: 1200 GREEN PARK DR CENTRAL POINT,OR

Contact: 5031112222

City:

Tag #

1

2

3

4

Tags Completed: 0

Meter Number:

Service Failure Cause

☐ Short In:

☐ Defective:

☐ Overloaded Branch Circuit

☐ General Overload

☐ Over-fused Branch Circuits

☐ Other:

Recommended Customer to Call

☐ Electrical Contractor

☐ Appliance Repairman

Remarks:

OK

Clear Tag

Cancel

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

Equipment Screen

Instrument Transformer Information

Set/ Rmv	Equipment Type	Serial Number	Ratio	#Turns
	CT	1053558	0040/1	2

Equipment Type:
 Serial Number:
 Ratio: /
 #Turns:
 Removal Reason:

Total Active Transformers: 1 Number of Transformers Set: 0

Pulse Initiator Information

PI Form: PI Type: Ke: PKe:

Remote Communication Information

Comm Method: Comm#: Modem Type:
☐ Cur Loop ☐ Spike Eliminator ☐ Shared Modem Mtr Addr:

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

The screenshot shows a window titled "Failed Equipment". Inside the window, there are the following fields and controls:

- Item: [Text Box]
- Manufacturer: [Dropdown Menu]
- Serial #: [Text Box]
- Primary Voltage: [Text Box]
- Secondary Voltage: [Text Box]
- Rating: [Text Box]
- Units: [Dropdown Menu]
- Phase: ☐ Single ☐ Three
- Type: [Text Box]
- Size: [Text Box]
- OK [Button]
- Cancel [Button]

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
-------------	-------------

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

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

Page 2 Screen

Name: MARTIN LEE

Order Type: CO Health Symptoms

Service:

Addr: 1200 GREEN PARK DR CENTRAL POINT,OR

Contact: 5031112222

City:

Leak Log#:

Leak Information

☐ Class 1

☐ Class 2

☐ CO Inside

☐ Inside Gas

☐ Outside Gas

Gas Shut Off

☐ Yes

☐ No

Location:

Meter #:

House Information

☐ Cleared

☐ Not Cleared

☐ House Check Required

Gas Repair

GRO #:

Leak Type:

Make Safe Date:

Make Safe Time:

Wall Check / Bar Hole Information

Wall Check

☐ CGI

% Gas:

% LEL:

Bar Hole

☐ URD Area

Time:

Add Reading

<

<<

1

>>

>

CO Check Info

Ambient Air:

Water Heater Flue:

Space Heater Flue:

Furnace Flue:

Other Flue:

PPM

PPM

PPM

PPM

PPM

Flue Spill Check

☐ Water Heater

☐ Space Heater

☐ Furnace

☐ Other

☐ NA

Prev Page

Gas Warn Tag

Electric Warn Tag

Monitor

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. Note: "CO Inside", "Outside Gas" and "Inside Gas" indicate where the gas leaks. "CO" means carbon monoxide.

Field Name	Description
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

Gas Warn Tag information

Name:Bo

Order Type:Gas Trouble

Service:((121)212-1212

Addr:t

Contact:

City:t

Tag #

Tags Completed:0

1

2

3

4

Meter Number:

Class

☐ A

☐ B

☐ C

Action Taken

☐ Appl/Piping Isolated

☐ Appl Shut Off

☐ Meter Locked Off

☐ Appl Left On/T emp Repair

Appliance Tagged

☐ Furnace

☐ Water Heater

☐ Range

☐ Other:

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

PPM

☐ Other

Remarks:

Signature Obtained

☐ Yes

☐ No

Recheck Date

OK

Clear Tag

Cancel

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

Meter Info Change

Name: MARTIN LEE Order Type: CO Health Symptoms Service:
 Addr: 1200 GREEN PARK DR CENTRAL POINT, OR Contact: 5031112222
 City: Appt: 08:00-18:00

Modify Meter Information

Meter #: ON497624 ON497624
 Mfqr:
 Model:
 Phase: Single Phas Single Phas
 Service Point Type: Gas Gas
 Remote Port:
 Location: BASEME BASEME

Reading

Usage CD/Type: Multiplier:
 Dials:

OK Cancel

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"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 2:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 3:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 4:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 5:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 6:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 7:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 8:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 9:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 10:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 11:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 12:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 13:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 14:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Step 15:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<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

Parts Screen

Parts Information

Quantity	Type	Material Description	Amount
3	WATER H	ELE WH SG2745 CH 4500W 240V S/I	17.37

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.

Field Name	Description
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.

Field Name	Description
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.

Field Name	Field Description
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 DHTWAMDIRCHRG table. Once a Charge Type is selected, the Units and Price fields is populated for the selected type.

Field Name	Field Description
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.

Button Name	Button 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	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.

Field Name	Field Description
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

Button Name	Button Description
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.

Button Name	Button Description
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

Cost Information

Task Progress:

Work Done: 1 Work: Acres Work Description: Adjustment

Failure: Alignment Mode: Fatigue Failure

Repair: Adjusted Component: Accumulator

Further Action: Adjustment Required

Detail View Cost Information Stock Charges Direct Charges 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

Pickup Related Field Orders

Name:

Addr:

City:

Service:

Contact:

	Order Number	Time Worked	Order Type
	<input type="text" value="0000000000000023573"/>	<input type="text" value="00:00"/>	<input type="text" value="Connect"/>
<input checked="" type="checkbox"/>	<input type="text" value="0000000000000023573X"/>	<input type="text" value="00:00"/>	<input type="text" value="Meter Exchange"/>
<input checked="" type="checkbox"/>	<input type="text" value="0000000000000023573Y"/>	<input type="text" value="00:00"/>	<input type="text" value="Disconnect"/>
<input type="checkbox"/>	<input type="text" value="0000000000000023573Z"/>	<input type="text"/>	<input type="text"/>

OK

Cancel

Pickup Field Order Screen

Select Meter to Remove for Set Change Pickup

Order Number:

Order Type:

01035339E

09426450G

Highlight the meter that should be removed in the Set Change Pickup order being created.

OK

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 (DHTPCUP).
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 (DHTPCUP).

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 (DHTPCUP). 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

1
2
3
4
5
6
7
8
9

Support Vehicle Definition

Vehicle ID Support Organization: AVA Electric Vehicle Type: Dump Truck

Crew Definition

of Mem: 2

Member 1 Job: Conduit Member 2 Job: Lead Line Mechai 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.

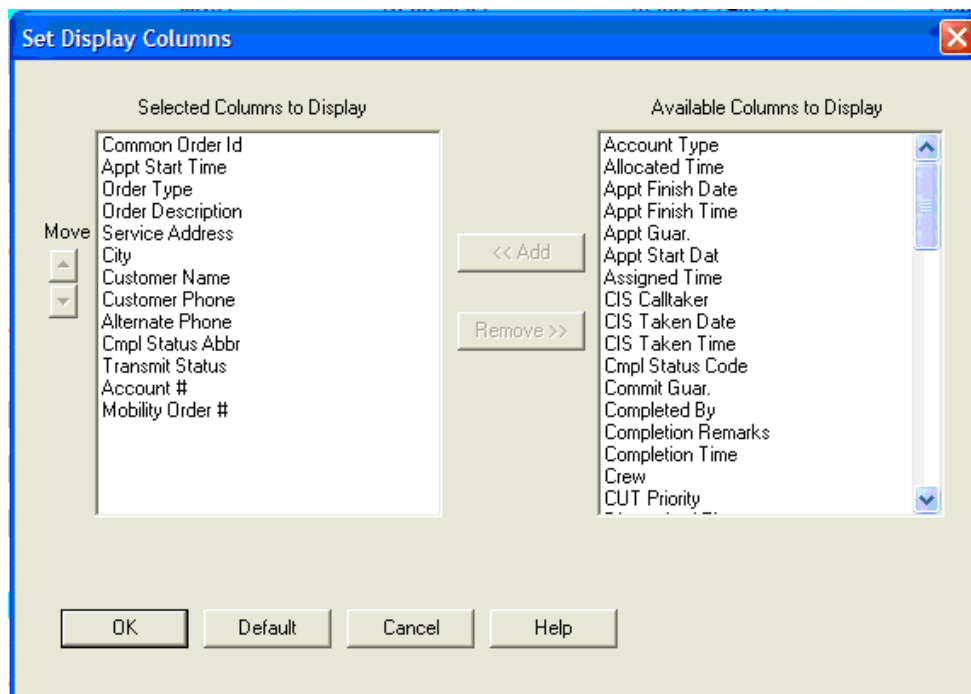
Of Members must be 1 through 4.

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.
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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).

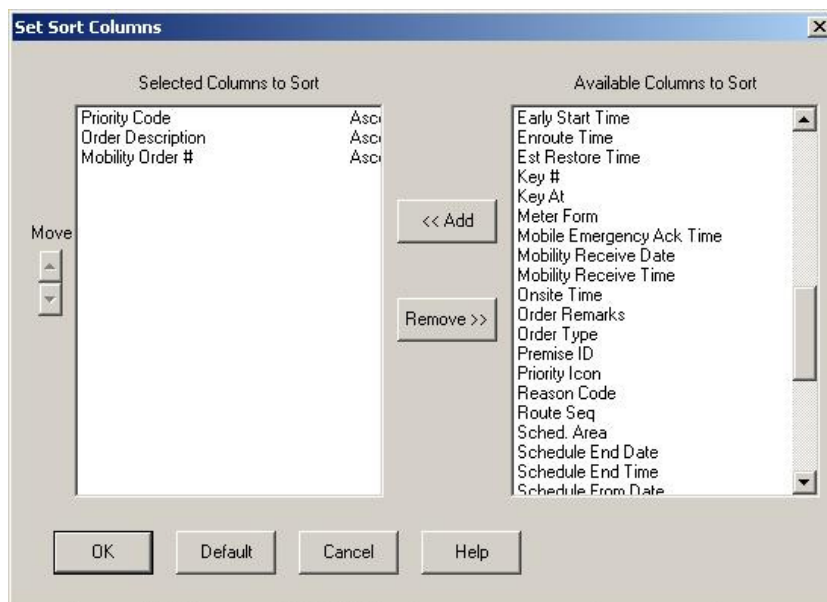
Validation

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.

Field Name	Description
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

Button Name	Description
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 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	
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
CU_TRANSFORMER	Compatible Unit Transformer	CUS
CU_TRANS_CABLE	Compatible Units - Transmission Cable	CUS
CU_UNDR_GRND1	Compatible Unit - Under Ground Conduit 6"	CUS
CU_UNDR_GRND2	Compatible Unit - Under Ground Conduit 12"	CUS
CU_UNDR_GRND3	Compatible Unit - Under Ground Conduit 3"	CUS
CU_VARIANT_CODE	Compatible Units - Variation Code	CUS
CU_VAULT1	Compatible Unit Underground Vault	CUS
DANDAN	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

Find Vendor Code

Search Results

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

Use Selected Code

Search Criteria

Vendor Code:

Vendor Name:

Order By:

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.