

Oracle® Mobile Field Service

Implementation Guide for Palm Handhelds

Release 11i (11.5.9)

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Oracle Mobile Field Service Implementation Guide for Palm Handhelds, Release 11i (11.5.9)

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Preface

Welcome to Release 11i (11.5.9) of the *Oracle Mobile Field Service Implementation Guide for Palm Handhelds*. Please note that Oracle Mobile Field Service can be deployed on both a laptop computer and Palm handheld. This guide is intended to help you successfully implement and administer Oracle Mobile Field Service/Palm, the Palm-specific version of Oracle Mobile Field Service. See *Oracle Mobile Field Service Implementation Guide for Laptops* for details on implementing Oracle Mobile Field Service on a laptop computer.

Intended Audience

This guide has been composed specifically for implementation engineers, system administrators, and any other administrator-level users who are required to set up and/or administer Oracle Mobile Field Service/Palm.

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Related Documents

Below is a list of the other documents that are referenced in this guide:

- *Installing Oracle Applications*
- *Oracle Mobile Application Foundation Implementation Guide*
- *Oracle Mobile Field Service Implementation Guide for Laptops*
- *Oracle9i Lite Installation and Configuration Guide*
- *Oracle Field Service Implementation Guide*
- *Oracle Support Implementation Guide*
- *Oracle CRM System Administrator's Guide*

Introduction

Oracle Mobile Field Service/Palm is a complete job-management application that helps a field service representative (FSR) complete his daily responsibilities. It converts a Palm handheld into an FSR's workbench. Oracle Mobile Field Service/Palm enables the field personnel to print service reports, view or update install-base records, and much more.

1.1 New in This Release

For information about the new and changed features of this release, please see *OracleMetaLink* Note 234252.1.

1.2 Features

Oracle Mobile Field Service/Palm supports the following features:

- Creating, viewing, and updating service requests and tasks
- Create orders
- View contractual information
- Viewing customer and install base information
- Debriefing time, materials, and expenses
- Capturing signatures, credit card information
- Capturing counter readings
- Creating and viewing a service request, task, customer, and product notes
- Viewing and sending messages

- Printing field service reports

1.3 Integration with Other CRM Modules

Oracle Mobile Field Service/Palm integrates with the following CRM modules:

- Field Service Dispatch Center
- Scheduler
- Spares Management/Inventory
- Field Service Report
- Oracle Application Foundation components such as Task Manager and Resource Manager

1.4 Migration

If you are updating from an earlier release of Oracle Mobile Field Service/Palm to release 11.5.9, please refer to the *Oracle Mobile Application Foundation Implementation Guide* for information on how to migrate your existing mobile application.

Release 11.5.8 marked the introduction of the Mobile Application Foundation, which replaces the CRM Gateway for Mobile Devices used in previous releases. Beginning with release 11.5.8, Oracle Mobile Field Service/Palm uses the new Mobile Application Foundation.

Release 11.5.8 and later releases of Oracle Mobile Field Service/Palm are not compatible with the pre-11.5.8 CRM Gateway for Mobile Devices infrastructure. You must upgrade the applications and foundation at the same time.

Software and Hardware Requirements

This chapter describes the minimum software and hardware requirements of the Oracle Mobile Field Service/Palm application.

2.1 Minimum Software Requirements

Enterprise Server

Refer to *Installing Oracle Applications* for the overall software requirements of the E-Business Suite. Also, refer to the *Oracle Mobile Application Foundation Implementation Guide*.

Palm Client

Refer to [Appendix A, "Installing the Field Service/Palm Client Application."](#)

2.2 Minimum Hardware Requirements

Enterprise Server

Refer to *Installing Oracle Applications* for overall hardware requirements for the E-Business Suite. Also, refer to the *Oracle Mobile Application Foundation Implementation Guide*.

Palm Client

Refer to [Appendix A, "Installing the Field Service/Palm Client Application."](#)

Dependencies

3.1 Oracle Mobile Field Service/Palm Dependencies

For information on the dependencies and installation procedures for this release of Oracle Mobile Field Service/Palm, refer to *OracleMetaLink 234252.1*.

Implementation Tasks

This chapter describes the following implementation tasks:

- [Confirming Required Enterprise Setups](#)
- [Setting Profile Options](#)
- [Publishing the Application](#)
- [Scheduling Concurrent Programs](#)

4.1 Confirming Required Enterprise Setups

This section describes how to setup the enterprise-side system so certain mobile features work properly on a Palm handheld.

4.1.1 Setting Up Service Request

Complete the procedures in the following table to create, view, and update Service Requests in Oracle Mobile Field Service/Palm.

Component	Required or Optional
Service Request Statuses	Required
Service Request Severities	Required
Service Request Types	Required
Service Request Urgencies	Optional
Problem Codes	Optional
Resolution Codes	Optional

Component	Required or Optional
Service Request Templates	Optional

For details, refer to the *Oracle Support Implementation Guide*.

4.1.2 Setting Up Tasks

The following table lists the Field Service-specific setups for tasks that must be performed in order to create, view, and update tasks in Oracle Mobile Field Service/Palm.

Component	Required or Optional
Task Statuses	Required
Task Status Transitions	Required (see Appendix D, "Setting Up State Transitions")
Task Types	Required
Task Priorities	Required
Task Templates	Optional

Set up the required components listed above. For details, refer to the *Oracle Field Service Implementation Guide* for these Field Service-specific setups.

Notes:

- The task status that is selected during service-task-creation is the one from the Field Service profiles : CSF: Default In Planning Status. You cannot change this.
 - When a service task is created, there will be no task assignment automatically created.
-
-

4.1.3 Setting Up Field Service Report

Field Service Report is part of the Oracle Field Service application and is used to report all material, expense, and labor transactions. From the Field Service Report screen, you can update inventory, install base, and charges.

When material, expense, and labor transactions are recorded in one of the Field Service/Mobile applications, all transactions are shown and updated to inventory, install base, and charges from the Field Service Report.

Ensure that Field Service Report is fully implemented and set up as described in the *Oracle Field Service Implementation Guide*.

See [Appendix B, "Setting Up Debrief Material Reporting"](#) to set up debrief material reporting.

4.1.4 Setting Up Install Base

This procedure is only required if you are using Install Base. If so, Install Base should be set up to support Install Base updates when doing material transactions in Oracle Mobile Field Service/Palm. This should be set up after performing the setup steps necessary for debrief material reporting.

Oracle Mobile Field Service/Palm supports two scenarios that affect Install Base:

- Removing a part
- Installing a new part

The following procedures are required to set up Install Base:

- Setting up system items for Install Base transactions
- Setting up Install Base profile options
- Removing and installing parts in Oracle Mobile Field Service/Palm

See [Appendix C, "Setting Up for Install Base Transactions"](#) for complete details.

Note: Changing the install base replication profiles during operation becomes effective when the value is changed. Information will not be changed with retroactive effect based on the profiles.

4.1.5 Setting Up Counters

The set up of counters is only required if you are using Install Base. The following are the setups for counters that must be performed in order to report counter readings in Oracle Mobile Field Service/Palm.

- Counters
- Counter Groups

- Counter Properties
- Miscellaneous Reading Types

Refer to the *Oracle Service Implementation Guide*.

Note: Only counters of type REGULAR are supported by Oracle Mobile Field Service/Palm. Both Counter Values and Counter Property values can be entered in Oracle Mobile Field Service/Palm.

4.1.6 Setting Up Messaging

Confirm that Messaging has been successfully installed and implemented.

4.2 Setting Profile Options

Set the profile options listed in the following table. The table lists the profile option name, a brief description, and the available options.

Profile Option	Description	Options
JTM: Mobile Applications Enabled	Set at the Field Service Palm responsibility level to Y . Only after setting the profile value can hooks or business events be enabled.	Yes or No
CSM_ITEM_CATEGORY_FILTER	Use to filter item categories	
CSM_ITEM_CATEGORY_SET_FILTER	Use to filter item category sets	
CSM_HISTORY_COUNT		Set to any value, with the default being zero
CSM_SYNCHRONOUS_HISTORY		Yes or No , with the default being No
CSF: History_M	Defines the number of days for data to remain on Oracle Mobile Field Service/Palm after it is last edited. When the number of days has expired, it is removed from the Oracle Mobile Field Service/Palm.	Number of days before data is removed on the client

Profile Option	Description	Options
JTM: Application Conflict Rule	Enables the Oracle Mobile Field Service/Palm application resolve conflicts between multiple updates to the same object.	Client wins: Changes made by the mobile user are always applied to the enterprise database. No timestamp checking is done. Server wins: Changes made by the mobile user are applied to the enterprise database if the record has not been modified since the mobile user last synchronized. If the record has been updated in the back end, then the mobile user's change is not applied
CSF: Palm Item Organization	All system items from the subinventories of the inventory organization that the user has access to are replicated to the mobile client.	The values are the organization codes of the inventory organizations (called organization name during profile setup)
CSM: Notifications Scope	Defines to whom messages can be sent	0 = All Oracle Mobile Field Service users. 2 = All the field service representatives in the group
CSF: Conform to Schedule	Specifies whether the field service representative must conform to the schedule or is allowed to do the tasks in any sequence on his or her laptop or Palm handheld.	Yes or No
Service: Inventory Validation Organization	Used to validate inventory item IDs that are associated with debrief lines.	Define at responsibility level for Oracle Mobile Field Service/Palm to be the master organization for the user. Hence, all downloaded inventory items will be validated.
JTM: Enable Credit Card Functionality	Enables the credit card capture functionality	Yes or No

4.2.1 Setting Up the Schedules and Responsibilities of Field Service Representatives

4.2.1.1 Conform to the Schedule

The field service representative can only work on one job at a time, and is given a schedule that the dispatcher plans. For instance, the following tasks may be assigned to a field service representative:

- task 1: 8:00 Installation at Customer A
- task 2: 9:00 Repair on-site at Customer B

- task 3: 10:00 Installation at Customer C

The field service representative first needs to finish task 1 before going on to task 2. He needs to follow the pre-defined order of the dispatcher. The field service representative cannot reschedule tasks, but can reject a task.

This setup gives the dispatcher control over the daily schedule of the field service representative. The dispatcher sets up the tasks, including what time and where the field service representative is to be at all times.

4.2.1.2 Order of Task Completion

If you send more than one field service representative to perform a task, make sure that you schedule only one task assignment at a time, because multiple task assignments can lead to conflicts. For example, suppose you have a task that requires three field service representatives. You set up the task and then you send it to the agendas of all three representatives. It now appears on their agendas. However, if one of your field service representatives changes the time for his task, that would affect the agenda of the other two representatives. To avoid this, you must create three tasks, one for each representative.

The service representative can complete his scheduled tasks under different scenarios.

Scenario 1: Complete Scheduled Tasks in Pre-determined Order

In this scenario, the field service representative works on one job at a time and conforms to the dispatched schedule.

Scenario 2: Complete One Scheduled Task at a Time in Any Order

In this scenario, the field service representative works on a single job at a time and does not conform to the dispatched schedule.

Scenario 3: Complete Multiple Scheduled Tasks in Any Order

In this scenario, the field service representative works on multiple jobs at a time and does not conform to the dispatched schedule.

Scenario 2 and Scenario 3 gives the field service representative control over his day. The dispatcher sends the tasks and locations to the field service representative, and the service representative then decides when to perform each task. This scenario works well in an environment where each task requires only one field service representative. For example, if a field service representative has a dental appointment, he can arrange the time he wants to be at the customer site near his dentist. The field service representative is expected to complete all the tasks on the

day they were assigned. If he is unable to complete a scheduled task, he can reject it and then the dispatcher will re-schedule the task for the next day.

4.2.2 Description of New Features

The following sections describe the new features of Oracle Mobile Field Service/Palm.

4.2.2.1 Concurrent Program Scheduling

Concurrent program scheduling is categorized for the Lookup, Transaction, and Inventory categories.

Formerly, all concurrent applications were registered with one JTM concurrent application, `MOBILE_CON_PROGRAM`. Now JTM has a new concurrent application, JTM Master Concurrent Program, which accepts the Lookup, Transaction, and Inventory categories as parameters. Now, concurrent applications are categorized for the Lookup, Transaction, and Inventory categories.

4.2.2.2 Category Set for System Item

A field service organization can have a large number of system items related to an inventory organization. However, field service representatives only use a portion of these items. To improve synchronization performance and to reduce the size of the downloaded data set, you can filter the system by category before downloading the data set to the field service representative. In order to do this, you need to set the following profiles:

- `CSM_ITEM_CATEGORY_FILTER`
Use to filter item categories
- `CSM_ITEM_CATEGORY_SET_FILTER`
Use to filter item category sets

These two profiles enable you to setup category sets (profile 1) and relate categories to this (profile 2). The category set and category profile make the unique key for replication. The values that can be selected for the category set profile are all categories sets of the master organization and the inventory organizations.

The following are the rules governing the use of category profiles.

- If the category profile is not set (no category is entered), then all items related to the default inventory organization are replicated to the mobile clients

- If the category profile is set (category is entered), then the system items replicated are filtered based in inventory organization and category.
- Items used in a service request created on the backend will not be impacted by this profile. But for service requests that the field service representative wants to create on a mobile device the category profile will limit the list of items available.
- The category profile does not affect the OnHandQty (stock in subinventory).

Items used in a field service report debrief are replicated as normal. This is independent of the category profile.

4.2.2.3 Service History

Oracle Mobile Field Service/Palm displays service history for closed or completed service requests, detailing any installed base item and customer information.

Only closed service requests are downloaded with service history. Service history information is read-only. Field service representatives need to go to the SR Details screen to view any service history. If the service request is based on the install base product, then the service history for the install base product is available to view. Otherwise, for that customer on customer location, history will be displayed.

The amount of service history available for a service request depends on the value set in the "Number of Historic Service Requests" profile. This value is the number of history requests that need to be replicated if available. When the "Number of Historic Service Requests" profile is set to zero no history needs to be replicated.

The history records can be gathered synchronously when the service request becomes replicable or needs to be deleted. This behavior can be set with the "Synchronous Service History Collection" profile. By default, history-gathering is synchronous but if this process requires too much performance, the customer can choose to do this asynchronously.

The following data is replicated for a service history record:

- Closed or completed service request
- Primary contact of this closed service request
- Product or item of the service request excluding parent and child records
- Closed tasks of this service request
- Closed task assignments of these tasks (role = assignee)
- Resources of these task assignments

- Debrief lines belonging these task assignments

The following profiles are used to create a service history:

- CSM: Number of Previously closed Service Requests
Default is zero. It is recommended that you send down three to five service requests. Do not set very high values because of Palm handheld limitations on data set size.
- CSM: Synchronous History Collected
The default is NO. Value is YES or NO.

4.2.2.4 Flexfield Support

Descriptive flexfields provide customization capabilities in Oracle Mobile Field Service/Palm. This satisfies various user needs without having to reprogram the application. For example, the Oracle Mobile Field Service/Palm application keeps track of customers and customers table schema and common UI normally include fields such as Name, Address, State, Customer Number, and so on. However, the UI/ table columns do not include customer clothing size and color preferences. A company using our application happens to desire the capture the information of clothing size and color preferences. This can be resolved by adding a descriptive flexfield so that users have the desired expansion space.

Users can also take advantage of the fact that descriptive flexfields can be context-sensitive, where the information your application stores depends on other values your users enter in other parts of the form.

The following are the flexfield features:

- Descriptive flexfield support only
- Five descriptive flexfields are supported:
 - Customer flexfields for table HZ_PARTIES
 - Service Request flexfields for CS_INCIDENTS_ALL_B
 - Tasks flexfields for JTF_TASKS_B
 - Installed Base flexfields for table CSI_ITEM_INSTANCES
 - System Items flexfields for table MTL_SYSTEM_ITEMS_B
- For flexfields of tasks and service request, EDITABLE flexfields are supported
- For the other three flexfields, READONLY are supported

- Field service representatives can access the flexfield screen through the Customer, SR (Service Request) Details, Task, and Product Information screens. The flexfield screen will be dynamically generated according to the DFF definitions.

4.2.2.5 Customer and Install Base Notes

Customer notes and install base item notes provide the field service representative with additional information about the customer, and any earlier work performed on that customer product. These notes can be written by the home office or out in the field by the field service representative. This note information helps the home office and field service representative to stay current on customer details.

4.2.2.6 Service Contracts

Contract entitlements are downloaded from the contracts module to the Palm handheld. On the Palm handheld, the field service representative can view all the customer entitlements, as described by their service agreement. Entitlement information includes such details as contract number, service name, service description, and billing information.

4.3 Publishing the Application

Use the following is the command to publish Oracle Mobile Field Service/Palm:

```
java -DJTFDBCFILE=<DBC FILE PATH> -DAFLOG_ENABLED=TRUE  
-DAFLOG_LEVEL=STATEMENT oracle.apps.asg.setup.InstallationMgr <DB_HOSTNAME>  
<DB_PORTNUM> <ORACLE_SID> <APPS_USER_NAME> <APPS_PASSWD> CSM_TOP CSM/CSM.ini  
html/download/CSM.zip
```

Refer to the *Oracle Mobile Application Foundation Implementation and Administration Guide* for additional information on how to publish mobile applications.

4.4 Scheduling Concurrent Programs

This procedure describes how to schedule the required programs for Oracle Mobile Field Service/Palm. If you need further instructions on how to set up concurrent programs, refer to the *Oracle Applications System Administrator's Guide*.

Steps

1. Log on to Forms with the "mobile admin" responsibility.

2. Navigate to View > Requests.
3. Schedule the concurrent programs that are listed in the following table:

Name	Description	Default (Recommended) Schedule
PROCESSES UPLOADED MOBILE DATA	Processes uploaded mobile data and applies it to the enterprise system.	Every 1 minute
MANAGE MOBILE USERS	Creates or removes mobile users automatically based on assigned mobile responsibilities.	Every 1 hour
JTM MASTER CONCURRENT PROGRAM	The JTM master concurrent program, which runs all concurrent jobs registered by mobile applications.	TRANSACTION: every 5 minutes LOOKUP: every 30 minutes INVENTORY: once a day PURGE: as often as required (Default is set to once per month)

4. Log in to the Forms application with the system administrator responsibility.
5. Schedule the concurrent program as indicated in the following table:

Name	Parameters	Default (Recommended) Schedule
Workflow Background Process	Item Type: CSM Type3 Process Deferred: Yes Process Timeout: Yes Process Stuck: Yes	Start: Right at the moment Run the job: Periodically Re-run: Every 0.5 minute Apply the Interval: From the completion of the prior run

Note: If there is major delay for the Workflow Background Process to handle the item type CSM TYPE3 processes, you should schedule more than one Workflow Background Process concurrent programs for item type CSM TYPE3. The number of Workflow Background Process concurrent programs to be scheduled depends on the workload of how many CSM TYPE3 processes are to be processed. This is important to boost the performance and ensure that mobile users can get online updates promptly.

Verifying the Implementation

This chapter describes the diagnostic tests that you should run to confirm that your setups and implementations have been successful.

5.1 Testing Oracle Mobile Field Service/Palm

Complete the following tasks to verify that the implementation of Oracle Mobile Field Service/Palm was successful:

1. Create a test user and assign them the Oracle Mobile Field Service/Palm responsibility.
2. Install the Palm application on a test Palm handheld. Refer to [Appendix A, "Installing the Field/Service Palm Client Application"](#) for details on how to set up the Palm application on the device.
3. Go to the Field Service Dispatch Center, create a task, and assign it to the test user.
4. Synchronize the Palm handheld.
5. The task should be sent out and received on the mobile application.
6. Change the task assignment status on the Palm handheld and then synchronize. Confirm that the task status update is reflected in the dispatch center.

Diagnostics and Troubleshooting

This chapter describes how to run diagnostics and troubleshoot runtime problems for Oracle Mobile Field Service/Palm.

6.1 Running Diagnostic Tests

To navigate to the diagnostic screens for Oracle Mobile Field Service/Palm, complete the following procedure:

Steps

1. Log in to the CRM System Administrator Console as a system administrator.
2. Click the Diagnostics tab.
3. Choose **Field Service/Palm** from the Application drop-down list.
4. Click **Advanced**.

Alternatively, you can also choose to run all tests under the Basic tab. The client-side tests in the following table are run automatically on the Palm handheld when the application is opened.

Refer to the *Oracle CRM System Administrator's Guide* or the online help system to learn how to use the Diagnostics Framework user interface.

You can run the following tests any time to verify the correct setup of Oracle Mobile Field Service/Palm. The table below lists diagnostic tests, test descriptions, observed symptoms, and proposed resolutions.

Test	Location	Problem	Resolution
Check Oracle9i Lite Version and libraries	Client Side	Incompatible Oracle9i Lite version or missing libraries	Install correct Oracle9i Lite libraries
Check Database - Publication Items and other Oracle9i Lite tables	Client Side	Required objects missing. The application opens with no tables or data	Re-install client application
User authentication	Client	Invalid username or password	Check username, password, and user subscriptions.
Check Palm OS version	Client	Application is not certified with Palm OS 3.5 or lower	Install Palm OS 3.5 or higher
Responsibility	Backend	User may not have proper responsibility	Assign proper responsibilities
Profile values	Backend	Profile values for Field Service Palm are not set	Set profile values
User Hooks Registration	Backend	Hooks registration is not done	Contact your Oracle technical support representative
Check Concurrent Program	Backend	All required concurrent programs might not be running	Make sure that the concurrent programs are running.
JTM Concurrent Program registration	Backend	For JTM Concurrent Program APIs are not registered	Contact your Oracle technical support representative
Task diagnostic	Backend	Task is assigned incorrectly	Assign task correctly
Check required list of values	Backend	List of values are empty	Create all list of values

6.2 Configuring Logging

Oracle Mobile Field Service/Palm uses the JTT Debug logging framework to log messages to a central repository that is shared by both the database and the middle tier servers. Each log message belongs to one of the following six severities: 1-Statement, 2-Procedure, 3-Event, 4-Exception, 5-Error, 6-Unexpected. UI screens give system administrators convenient and simple controls for configuring and viewing the logs.

Refer to the *Oracle CRM System Administrator's Guide* or the online help system to learn how to use the Logging screens.

View and configure logging for all modules as follows:

Steps

1. Log in to the CRM System Administrator Console as a system administrator.
2. Navigate to `Setting > System > Debug Logging > Configuration`.
3. Set the following values:
 - `Enabled = ON`
 - `Level = Statement`
 - `Repository = Database`
 - `Module filter = include string csm%`
4. Click **Update** to save the values.
5. Bounce Apache (the mid-tier server).

Note that you should turn the logger off after you finish troubleshooting. This changes the values of the above fields back to their original values. Logging at this level of detail consumes resources and could impact the performance of your system.

In addition to these logs, you can use the Oracle9i Lite Mobile Server logging facility to troubleshoot problems with user synchronizations. Refer to the *Oracle9i Lite Mobile Server Administration Guide Release 5.0.2* for more details.

6.3 Final Checks

If you have problems running the application on the Palm handheld, check that the requirements below have been met.

- Material items must be created and associated with the field service representative's inventory.
- The task state transitions must be set up in Field Service.
- Field service representatives must have a location associated with them.
- A request or task must have a location before it can be scheduled.
- Users must be granted the Oracle Mobile Field Service/Palm responsibility.
- Labor and expense items need to be setup.

Administering Oracle Mobile Field Service/Palm

This chapter describes how to perform administrative tasks for Oracle Mobile Field Service/Palm.

7.1 Managing Mobile Users

Users who have the Field Service Palm responsibility assigned to them will have access to the Oracle Mobile Field Service/Palm application. To create users for Oracle Mobile Field Service/Palm, create the users as described in the *Oracle Mobile Application Foundation Implementation and Administration Guide*. Confirm that the following procedures have been completed:

- Setting Up Employees
- Setting Up Resources
- Setting Up Field Service

When the above procedures have been done, then assign the Oracle Mobile Field Service/Palm responsibility to the users. Access to the Palm application will be based on the same usernames and passwords as the enterprise system.

There is a concurrent program in the Mobile Application Foundation that periodically allocates resources for users that have a mobile responsibility, so there will be a delay between when the responsibility is assigned and when the change will take effect. Refer to the *Oracle Mobile Application Foundation Implementation and Administration Guide* for information on how to manually run the concurrent program to expedite creation of a new user.

Users can only change their passwords while connected online through the forms/HTML interface as discussed in the *Oracle Applications System Administrator's Guide*.

The system administrator can change a user's password for them as discussed in that guide.

If you remove the Oracle Mobile Field Service/Palm responsibility from a user, that user will no longer be able to use the Palm application and synchronize. However, the application will remain on his or her Palm handheld.

7.2 Setting the Conflict Resolution Rule

The profile option JTM: Conflict Rule specifies the conflict resolution rule that will be followed in case of updates to the same entity by both the server and a Palm user.

This profile option enables the Oracle Mobile Field Service/Palm application to handle updates to the database from the mobile devices. The two choices are:

- **Client wins.** Changes made by the mobile user are always applied to the enterprise database. No timestamp checking is done.
- **Server wins.** Changes made by the mobile user are applied to the enterprise database if the record has not been modified since the mobile user last synchronized. If the record has been modified in the meanwhile, then the mobile user's change is not applied.

7.3 Reviewing Upload Errors

Upload errors are generated during the upload process when some of the data fails to be applied to the enterprise database. Upload errors can be caused by the following:

- **System Issues:** It is possible that the system is on a different Mobile patch level than what is required.
- **Setup Issues:** The right business process type or the right profile setting is not set on the enterprise system. For example, for an expense line, it is necessary that the expense type is set correctly.
- **Faulty Data or Conflicts**

The mobile foundation maintains a log of all upload errors. You can use the mobile foundation user interface to view and manage these errors. Refer to the *Mobile Application Foundation Implementation and Administration Guide* for how to reapply and solve deferred upload error issues.

Installing Oracle Mobile Field Service/Palm

This appendix describes how to install Oracle Mobile Field Service/Palm onto a Palm handheld.

A.1 System Requirements

A.1.1 Minimum Hardware Requirements

A.1.1.1 Desktop PC Minimum Hardware Requirements

- **Computer:** IBM-compatible with Pentium I processor
- **Disk space:** 50 MB free space
- **Monitor:** 256 color display
- **RAM:** 32 MB
- **Other requirements:** serial port, Internet connection, mouse or pointer device

A.1.1.2 Palm Handheld Minimum Hardware Requirements

- **Device:** Any Palm handheld running Palm OS 3.5 or higher
- **RAM:** 2 MB of available RAM

A.1.2 Minimum Software Requirements

A.1.2.1 Desktop PC (Gateway Server) Minimum Software Requirements

- **Operating System:** Windows NT 4.0 (Service Pack 5), Windows 95, Windows 98, Windows 2000, or Windows ME.

- **Palm Desktop:** At minimum, the HotSync Manager and Install Tool.
- **Browser:** Microsoft Internet Explorer, version 5.5 or later. This is the recommended browser.

A.1.2.2 Palm Handheld Minimum Software Requirements

- **Operating System:** Palm OS 3.5 or higher

A.2 Installing the Application on Your Palm Handheld

To install Oracle Mobile Field Service/Palm on your Palm handheld, complete the tasks listed in the following table, in order:

Steps	Performed At
Step 1: Downloading and Installing the Oracle9i Lite Setup Program	Client PC (the PC that the Palm handheld HotSyncs to)
Step 2: Performing a HotSync to put Oracle9i Lite Components on the Palm handheld	Client Palm
Step 2: Establishing an Oracle Conduit on the Palm HotSync Manager	Client PC
Step 4: Configuring mSync on the Palm handheld	Client Palm
Step 5: Performing a Full Synchronization to Retrieve the Field Service Application and Data	Client Palm
Step 6: Launching the Oracle Mobile Field Service/Palm application	Client Palm

Refer to Appendix C, "Setting Up for Install Base Transactions" for details on how to set up the various modes of communication with the Palm handheld.

A.2.1 Step 1: Downloading and Installing the Oracle9i Lite Setup Program

Perform these steps on the desktop. In this step you will download the mobile client from the Mobile Server and install the Oracle9i Lite setup program.

Steps

1. Open your browser.

2. Enter the following URL in your browser, where <Mobile Server> is the domain name or IP address of the Mobile Server:

`http://<Mobile Server>/setup`

For example: `http://130.35.88.214:8000/setup`

3. Click on the link to download the Mobile Client for Palm setup program and save it.

If you are using Internet Explorer, right click with the mouse, choose the option **Save target as**, and then click **OK**. Choose a location to save the setup program and click **Save**.

4. Using Windows Explorer, double-click on the `setup.exe` file that you just downloaded in order to run the setup program.

Once started, the setup program prompts you to specify an install directory.

5. Choose an install directory, for example, `C:\ora_HOME`, and then click **OK**.

The Setup program downloads all the required components.

6. After you download the necessary files, the setup program prompts you to select a Palm user.

Note: If the Palm desktop is not installed, the setup program will prompt you to install it. Also, you will need to manually publish all PRC files if they have not been published.

When you have installed the Palm desktop, the setup program informs you that the components are successfully installed and will be uploaded with the next HotSync.

If you have not installed the Palm desktop, install the Palm desktop and rerun the setup program.

A.2.2 Step 2: Performing a HotSync to put Oracle9i Lite Components, Oracle Mobile Field Service/Palm, and the Database on the Palm Handheld

Complete the following procedure:

Steps

1. After you download and install the Palm Desktop, launch the Palm Desktop.

2. From the HotSync menu, select **Setup**, click the Network tab, then select the user for performing a Network HotSync operation.
3. Perform a HotSync to put Oracle9i Lite components, the application, and the database on the Palm handheld.

To do a HotSync to retrieve the actual Field Service application and the data associated with it, the computer that hosts the HotSync manager must have an HTTP connection with the Mobile Server.

A.2.3 Step 3: Establishing an Oracle Conduit on the Palm HotSync Manager

Complete the following procedure:

Steps

1. Copy the following files from C:/ORANT/palm to the HotSync directory:
 - conshttp_reg.exe
 - conshttp.dll
2. Start the HotSync Manager.
3. Run conshttp_reg.exe. When you double-click the file, nothing will be displayed, but the program will indeed be running.
4. Close and restart the HotSync Manager.

A.2.4 Step 4: Configuring mSync on the Palm Handheld

Follow this procedure to install the Oracle Mobile Field Service/Palm application and the database on the Palm handheld.

Steps

1. Tap the **mSync** icon on the Palm handheld.

The mSync screen opens.
2. For each field, enter the value as indicated in the following table:

Field	Value
User Name	mSync client user name. This is case insensitive. (This is the Mobile Field Service username.)
Password	mSync client password. This is case insensitive.

Field	Value
Change	Leave this check box deselected.
Save Password	Select this check box to save the mSync username and password.
Server	IPaddress:port
Use Proxy	Select if appropriate.

A.2.5 Step 5: Performing a Full Synchronization to Retrieve Oracle Mobile Field Service/Palm and Data

Steps

Complete the following steps to perform a full synchronization:

1. Perform a HotSync.
After the HotSync, the mobile database and the mobile application are replicated to the client.
2. Use RAS or a modem to connect to the Mobile Server.
You do not have to use the HotSync option all the time.

A.2.6 Step 6: Launching Oracle Mobile Field Service/Palm

Complete the following procedure to launch the Oracle Mobile Field Service/Palm application on the Palm handheld.

Steps

1. Tap the **Applications** icon on the Palm handheld to display the application picker.
2. Tap the **Field Service** icon from the application launcher.

A.3 Configuring the Palm Handheld to Use Either Remote Application Server or a Modem

In addition to using the HotSync option to synchronize Oracle Mobile Field Service/Palm and the database, Remote Application Server (RAS) or a modem can also be used to synchronize.

If you are configuring the Palm handheld connected to a RAS client, follow the procedure described in ["Connecting to a RAS Client"](#) on page A-6.

If you are configuring the Palm handheld connected to a wired modem, follow the procedure described in ["Connecting to a Wired Modem"](#) on page A-8.

A.3.1 Connecting to a RAS Client

To configure HTTP as the transport mechanism for Palm OS 3.5, use the following procedure:

Steps

1. From the Palm handheld desktop, tap the **Prefs** icon.

The Preferences screen opens, displaying the date and time.



2. From the drop-down list, select **Connection**.

The Preferences screen displays a list of available connections.



3. Tap **New**.
The Edit Connection screen opens.
4. Enter the following:
 - Name: HTTP
 - Connection Method: Serial to PC
5. Tap **OK** to close the Edit screen.
6. Tap **OK** to close the Preferences screen.
7. Select **Network** from the menu.
The Preferences screen opens.
8. For each field, enter the value as indicated in the following table:

Field	Value
Service	Windows RAS
User Name	The user's name
Password	The user's password
Connection	HTTP
End	no information required

9. Tap the **Details** button.

The Details dialog box opens.

10. Make sure that IP Address: Automatic is selected.

11. Tap the **Script** button.

The Log in Script dialog box opens.

12. For each field, enter the value as indicated in the following table:

Field	Value
Send CR	no information required
Delay	1
Send	CLIENT
Wait For	CLIENTSERVER
End	no information required

13. Tap the **OK** button to close the Log in Script dialog.

14. Tap the **OK** button again to close the Details dialog.

15. Place the Palm handheld in the HotSync cradle.

16. Tap the **Connect** button to test the connection.

If the PPP connection is successful, the Palm handheld is ready for data synchronization.

A.3.2 Connecting to a Wired Modem

Use this procedure if you are connecting to a wired modem.

Steps

1. Tap the Applications picker.

2. Tap **Prefs**.

3. In the Preferences screen of the Palm Computing Platform device, select **Modem** from the menu.

The Preferences screen opens.

4. Verify that the speed is set to 19200 bps.

5. Select **Network** from the menu.

The Preferences screen opens.

6. For each field, enter the value as indicated in the following table:

Field	Value
Service	Windows NT RAS
User Name	The user's name
Password	The user's password
Phone	Telephone number of modem to dial

7. Tap the **Details** button.

The Details dialog box opens.

8. Ensure that the Connection Type is set to PPP.
9. Ensure that the Query DNS is tapped.
10. If the Palm does not locate the correct database, enter the Primary DNS and Secondary DNS of the RAS system.
11. Ensure that for IP Address: Automatic is selected.
12. Tap the **Script** button.

The Log in Script dialog box opens.

13. For each field, enter the value as indicated in the following table:

Field	Value
Send CR	No information required
Delay	1
Send	CLIENT
Wait for	CLIENTSERVER
End	No information required

14. Tap **OK** to close the Log in Script dialog box.
15. Tap **OK** again to close the Details dialog box.
16. Place the Palm handheld in the HotSync cradle.

17. Tap the **Connect** button to test the connection.

If the PPP connection is successful, the Palm handheld is ready for data synchronization.

A.4 Synchronizing the Field Service Application and Data

Follow this procedure to synchronize the database on the Palm handheld.

Steps

1. Tap the **mSync** icon on the Palm handheld.

The mSync screen opens.

2. For each field, enter the value as indicated in the following table:

Field	Value
User Name	mSync client user name. This user name is case insensitive. (This is the Mobile Field Service UserName.)
Password	mSync client password. This is case insensitive.
Change	Leave this check box deselected.
Save Password	Select this check box to save the mSync username and password.
Server	IPaddress:port
Use Proxy	Select if appropriate.

3. Perform a HotSync.

After this HotSync, the mobile database and the mobile application is replicated to the client.

If you are not doing a HotSync and instead are using either RAS or a wired modem, tap the **Sync** button in the mSync application. You will now see the progress bar that will indicate the progress of the synchronization.

4. When the synchronization completes, tap **Cancel**.

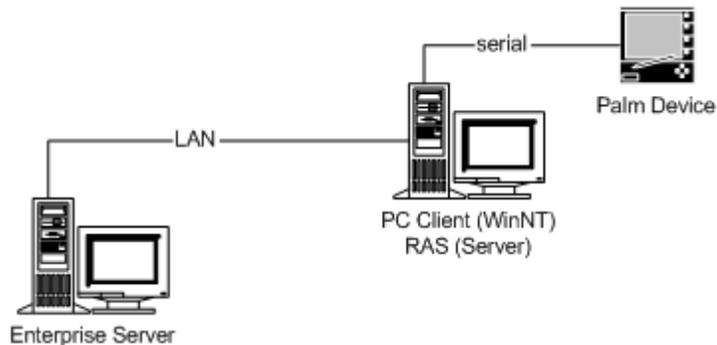
A.5 Configuring the Windows RAS

Replicating with the Palm Computing Platform using Scout or HTTP requires the TCP/IP communication protocol. Oracle Mobile Field Service/Palm uses serial lines for connection to the network. This step provides instructions for enabling TCP/IP communications for Palm handhelds using Windows NT RAS.

Perform this procedure to enable TCP/IP communications between handheld devices and your Windows NT server using Windows NT RAS.

The following figures show the architecture that can be used by the Field Service representative to synchronize data between the Palm handheld and the Mobile Server, either at home or in the office.

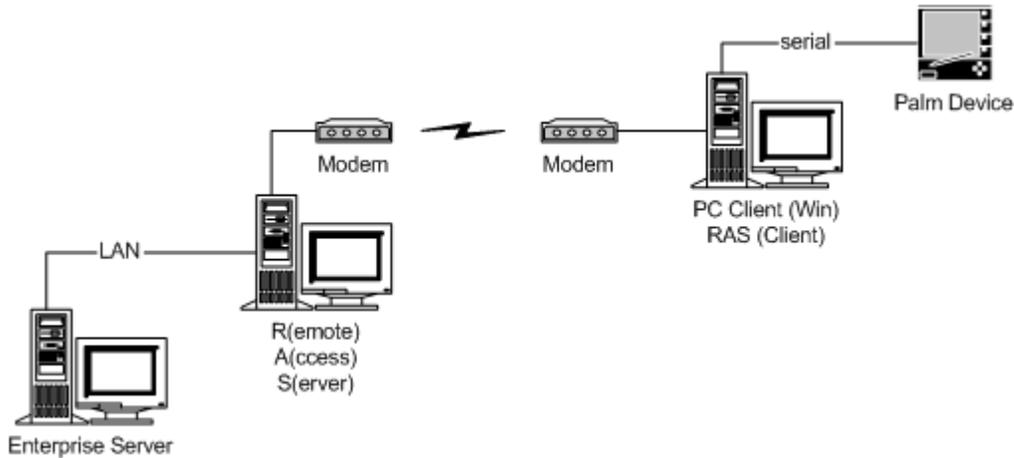
The following illustration shows the most direct connection of a Palm handheld with the Mobile Server, where a serial connection connects the Palm handheld with the Mobile Server, and a LAN connection connects the Mobile Server with the enterprise server.



This connection requires the following setup steps:

- Setting up a RAS Server.
- Creating a RAS User Account for the Palm handheld.
- Configuring the Palm handheld (connected to a PC client).

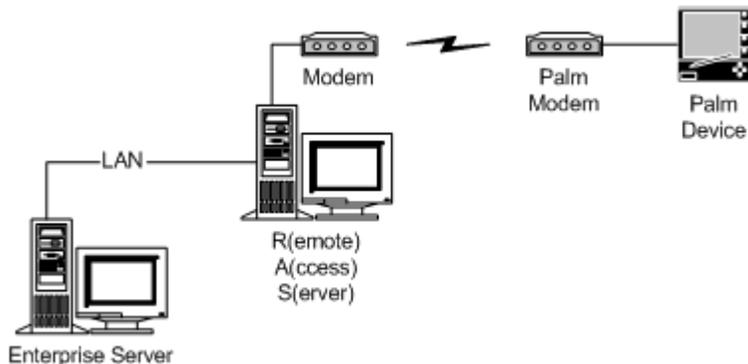
The following illustration shows another possible connection scenario, where a serial connection connects the Palm handheld with a PC client, a modem connection connects the PC client with a Remote Access Server, and a LAN connection connects the Remote Access Server with the enterprise database.



This connection requires the following setup steps:

- Setting up a RAS Server.
- Creating a RAS User Account for the Palm handheld.
- Setting up the Palm handheld (Connected to a RAS Client).

Another way to connect the Palm handheld is shown in the next illustration, where the Palm handheld has its own modem that connects to the modem of the RAS. This is a valid setup when the field service representative is on duty in the field.



This connection requires the following setup steps:

- Setting up the Palm handheld (Connected to a Wired Modem)

Prerequisites

- Request a TCP/IP address range equal to the number of clients plus 1. Typically one Palm handheld is connected to the COM port, therefore the End address will be one number higher than the Start address.
- You must make sure that the TCP/IP addresses are not already in use by other computers in your network.

Steps

1. In the Windows Control panel, double-click the **Network** icon.
2. Click **Add** in the Services tab of the Network window.
3. Select **Remote Access Service** and then click the **OK** button.
4. Insert the Windows NT CD-ROM into the CD-ROM drive and specify the location where you want the setup program to search for existing Windows NT RAS files. Click the **Continue** button. The setup program copies the Windows NT RAS files into the appropriate directories. If the setup program fails to detect a modem, it prompts you to add a modem.
5. Click the **Yes** button and enter the required information to install a modem.
The Add RAS handheld window opens.
6. Select **COM1-Dial-Up Networking Serial Cable** from the drop-down list.
If no COM1-Dial-Up Networking Cable option is available from the drop-down list, perform the following steps to add it.
 - a. Click **Install Modem**.
The Install New Modem dialog box opens.
 - b. Select the Don't detect my modem check box.
 - c. Select **Dial-Up Networking Serial Cable**.
 - d. Select the port on which the Palm handheld is connected.
 - e. Click **Next**.
 - f. Click **Finish** to leave the Install New Modem dialog window and return to the Add RAS Device window and select the option from the drop-down list.
7. Click **OK**.
The Remote Access Setup window opens.

8. Under Port, select **COM1** and then click **Configure**.

The Configure Port Usage window opens.

9. Select the Receive calls only radio button and then click **OK**.

10. Click **Network** in the Remote Access Setup window.

The Network Configuration window opens.

11. Select **TCP/IP** and click the **OK** button.

The RAS Server TCP/IP Configuration window opens.

12. Select **Entire Network** and **Use Static Address Pool**.

13. Specify the requested range of TCP/IP addresses for multiple devices. Enter the beginning of the TCP/IP address range in the **Begin** field and enter the ending of the TCP/IP address range in the **End** field.

If you have fifty devices, for example, you could define the following range:

Begin: 10.1.0.1

End: 10.1.0.51

NOTE: Use the requested range of TCP/IP addresses compliant with your own network, do not use the example above.

14. Click **OK**.

15. In the Network Configuration window, select **Any Authentication Including Clear Text** and then click **OK**.

The **Remote Access Setup** window opens.

16. Click **Continue**.

The Setup Message window opens.

17. Click **OK**.

The Network window opens.

18. Click **Close**.

The Network Settings Change window opens.

19. Click **Yes** to restart the system.

When the system is restarted and you have logged in again, an error message might appear, saying that HotSync manager is unable to open COM1. Ignore this error message.

20. After the system reboots, click the **Services** icon in the Windows Control Panel.
The Services window opens.
21. Select **Remote Access Server** and click the **Startup** button.
22. Select **Automatic** and click the **OK** button.
23. Click the **Close** button.
24. Log on as a local administrator.
25. From the Windows Start menu, select **Administrative Tools** and then select **User Manager**.
The User Manager window opens. Proceed to Section A.6: "Creating a RAS User Account for the Palm handheld."

A.6 Creating a RAS User Account for the Palm Handheld

In this procedure, we continue the procedure that we started in Section A.5, "Configuring the Windows RAS."

Steps

1. Log on locally to your own system, not to the network, as administrator.
2. Select **New User** from the User menu.
The New User dialog box opens.
3. Enter a user name, password, and password confirmation in the required fields.
4. Select **Password Never Expires**.
5. Click the **Dial-In** button.
The Dial-In Information dialog box opens.
6. Select **Grant Dial-In Permission to User** and then click the **OK** button.
7. Click the **OK** button to exit the New User dialog box.
8. Exit the User Manager screen.
9. From the Windows Start menu, select **Administrative Tools** and then select **Remote Access Administration**.
The Remote Access Admin window opens.

10. Verify that the new RAS user is granted remote access permission and then click **OK**.

Setting Up Debrief Material Reporting

This appendix describes how to set up the reporting of debrief material from Oracle Mobile Field Service/Palm.

To be able to report material used or recovered in Oracle Mobile Field Service/Palm, you have to perform various setup procedures in the Forms application. The following are the setup procedures:

- [Defining Transaction Billing Types](#)
- [Linking Transaction Billing Types to Field Service Business Processes](#)
- [Creating Install Base Transaction Types](#)
- [Creating a Trackable Item](#)
- [Setting the Item Type and Billing Type](#)

You can set material and expense items to any billing type using billing categories. These billing types are mapped to either the material, labor or expense billing categories. Transaction types are then mapped to billing types and transaction types are then linked to business processes.

B.1 Defining Transaction Billing Types

A *transaction billing type* is the billing type associated with a particular transaction type. There are three transaction billing types:

- Time
- Material
- Expense

From the Forms application, complete the following steps to define transaction billing types:

Steps

1. In the Responsibilities window, select **Field Service Administrator** and then click **OK**.

The Navigator - Field Service Administrator window opens with the Functions tab active.

2. Select **Installed Base** and then click **Open**.

A list of items appear under the Installed Base item.

3. Select **Transaction Billing Types** and then click **Open**.

The Transaction Billing Types window opens.

4. From the Line Category Code field in the Transaction Types section, select either **ORDER** or **RETURN**.

This selection depends on whether the transaction type is going to be used for parts-in or parts-out transactions.

5. In the Name field in the Related Billing Types section, select **Material**.

It is not necessary to complete any other fields in the Functions tab of the Navigator - Field Service Administrator window.

The following billing types should already exist since this is seeded data:

- Expense
- Labor
- Material

B.2 Linking Transaction Billing Types to Field Service Business Processes

After you define transaction billing types, you can then link them to field service business processes. A *business process* is a grouping level that defines which transaction types can be used in an area. Examples of an area are "Field Service" and "Depot Repair."

From the Forms application, complete the following steps to link transaction billing types to field service business processes:

Steps

1. In the Responsibilities window, select **Field Service Administrator** and then click **OK**.

The Navigator - Field Service Administrator window opens with the Functions tab active.
2. Select **Installed Base** and then click **Open**.

A list of items appear under the Installed Base item.
3. Select **Business Process** and then click **Open**.

The Business Process Transactions window opens.
4. In the Business Process section, complete the Name field.
5. Ensure that the Field Service check box is selected.
6. Optionally, complete the Effective Dates fields in the Business Process section and then ensure that the to and from dates are valid.
7. In the Transactions section, add transaction types to the Transaction Type fields.
 - a. Click in a Transaction Type field and then click the ellipse button.

The Find Order Transaction Type pop-up window opens.
 - b. Select the desired Type from the pop-up window and then click **OK**.

The transaction type appears in a Transaction Type field in the Transactions section. Oracle Mobile Field Service/Palm automatically completes the Effective Dates From field, but the Effective Dates To field is left blank.
 - c. Optionally, complete the Effective Dates To field.

B.3 Creating Install Base Transaction Types

An install base transaction type or transaction subtype is a transaction type that contains additional criteria about a transaction type. An install base transaction type needs to be setup for an install base. Creating an install base transaction type is done based on an existing transaction billing type.

From the Forms application, complete the following steps to create an install base transaction type:

Steps

1. In the Responsibilities window, select **Oracle Installed Base Admin** and then click **OK**.

The Navigator - Oracle Installed Base Admin window opens with the Functions tab active.

2. Select **Setups** and then click **Open**.

A list of items appear under the Setups item.

3. Select **Installed Base Transaction Types** and then click **Open**.

The Transaction Sub Types window opens.

4. In the Transaction Sub Type section, select the Service Type check box.

5. Click in the Name field and then click the ellipse button.

The IB Transaction Types pop-up window opens.

6. Select an IB transaction type.

7. In the Source Transaction Types section, click in an Application Name field and then click the ellipse button.

The Application Name window opens.

8. Select **Field Service** and then click **OK**.

9. Click in a Transaction Name field and then click the ellipse button.

The application automatically completes the Transaction Name field with Field Service Report. It also automatically completes the Transaction Type and Description fields.

10. To use the transaction subtype for install base updates, select the Update IB check box.

If you select the Update IB check box, then you need to select various check boxes in the Source Info section of the Transaction Sub Types window so that the application can support the install base update.

Setup 1:

This setup applies when either of the following are true:

- Update IB check box is not selected.
- Update IB check box is selected, and the Line Category Code field in the Transaction Types section of the Transaction Types page is set to ORDER.

In this case, the following should be specified in the Source Info section of the Transaction Sub Types window:

- Reference Reqd check box is selected.
- Change Owner check box is selected.
- Change Owner To field is set to External.
- Return Reqd check box is not selected.

Setup 2:

This setup applies when the following is true:

- Update IB check box is selected, and the Line Category Code field in the Transaction Types section of the Transaction Types page is set to RETURN.

In this case, the following should be specified in the Source Info section of the Transaction Sub Types window:

- Change Owner check box is selected.
- Change Owner To field is set to Internal.
- Return Reqd check box is not selected.

Also in this case, the following should be specified in the Parent Info section of the Transaction Sub Types window:

- Reference Reqd check box is not selected.

B.4 Creating a Trackable Item

In this section, the term *trackable* indicates that you are able to search for an item in the Oracle Mobile Field Service/Palm application. In contrast, *nontrackable* indicates that you are not able to search for an item. You specify an item as trackable in the Forms application.

In Inventory, you can define a system item, such as a keyboard. For this item, you can specify a trace life cycle. With this feature enabled, you are able to track the item to know if it has been installed or removed at a customer site. A trackable item is also maintained in the install base.

From the Forms application, complete the following steps to create a trackable item:

Steps

1. In the Responsibility window, select **Inventory** and then click **OK**.

The Navigator - Inventory window opens with the Functions tab active.

2. Select **Items** and then click **Open**.

A list of items appear under the Items item.

3. Select **Master Items** and then click **Open**.

The Organizations window opens.

4. From the Organizations window, select an organization.

The Master Item window opens with the Main tab active.

5. Click the Service tab.

6. Select the Install Base Tracking check box in the Install Base section on the Service tab.

B.5 Setting the Item Type and Billing Type

From the Forms application, complete the following steps to set the item type and billing type:

1. In the Responsibility window, select **Inventory** and then click **OK**.

The Navigator - Inventory window opens with the Functions tab active.

2. Select **Items** and then click **Open**.

A list of items appear under the Items item.

3. Select **Master Items** and then click **Open**.

4. Select an organization from the Organizations pop-up window.

The Master Item window opens with the Main tab active.

5. Click the Service tab.

6. Select the Serviceable Product check box.

Select the master item billing type from the Billing Type drop-down list.

Setting Up for Install Base Transactions

This appendix describes the Install Base setup procedures that are relevant to Oracle Mobile Field Service/Palm implementation.

C.1 Setting Up System Items for Install Base Transactions

Steps

Complete the following steps to set up system items for Install Base Transactions:

1. Log in to the Forms application using the responsibility Inventory.
2. Create a Miscellaneous Transaction, putting the Item in a Subinventory.
3. Navigate to Setup > Organizations > Subinventories.
4. Create at least one Subinventory in the Service Master Organization.

The Subinventory should be a Quantity Tracked, Asset Subinventory. Set the Locator Control value to None. Also create a Subinventory in the Palm Inventory Organization (which will be used as the good Subinventory).

5. Create System Items that are:
 - Transactable (Inventory tab page)
 - Trackable (Inventory tab page)
 - Serviceable (Service tab page)
 - Of type Material (Service tab page)

in the same organization as the Subinventory of the Mobile Resource.

6. Put the Trackable Item you defined above in your good Subinventory (using Miscellaneous Transactions). Also put a Non-Trackable Item there. The

Trackable Item should be created as an Install Base product instance in the back end.

7. Under the responsibility Field Service Manager, navigate to Spares Management > Setup > Resource Addresses and Subinventories.
8. Create a new record for your Mobile Resource by entering its name. Assign a Primary Address and the two Subinventories you created to it.
9. The condition of the Subinventory in the Master Organization should be set to Defective and the condition of the Palm Organization Subinventory should be set to Usable.

C.2 Setting up Install Base Profile Options

Set up profiles as indicated in the following table:

Profile Name	Value	Comments
CSE: Miscellaneous Issue to Project Transaction Type	Issue to	none
CSE: Miscellaneous Receipt From Project Transaction Type	Receipt from	none
CSE: PA Expenditure Type	Material	none
CSE: Bypass Event Queue	Y	This profile is used to bypass some queues, so when miscellaneous transactions are created they will be directly inserted into Install Base.

Adjusting Transaction Types so they can be used for Install Base updates can be done under the responsibility Installed Base Admin and navigating to Setups > Transaction Types and Sub Types. Transaction Types can be used for Removing Install Base products by setting the Change Owner To field in the Source Info section of the form to Internal.

By setting it to External, the Transaction Type can be used for installing new Install Base products.

C.3 Removing and Installing Parts in Oracle Mobile Field Service/Palm

Whether an Install Base update is done when removing a part in Oracle Mobile Field Service/Palm depends on the selected Transaction Type when doing a Material Transaction.

If the Change Owner To value of the selected Transaction Type was set to Internal, then the Install Base product to be removed can be indicated in the Palm application.

If the Change Owner To value was set to External, then a Trackable Product can be indicated from a Usable Subinventory. An Install Base product will be created upon debriefing the Material Transaction in Field Service Report with the Update Installed Base check box selected.

Setting Up State Transitions

D.1 Setting Up Task Status Transitions

Steps

Complete the following steps to set up task status transitions:

1. Switch to the Field Service Manager responsibility.
2. Navigate to **Field Service Setup > CRM Foundation > Task and Escalation Manager > Setup > Define Task Status**.

The Task Statuses form displays.

3. Click the **Define Transition** button to display the Status Transitions form.
4. On the Rule tab, select **Task State Transition** for the Source field, **Field Service** for the Application field, and **Field Service** for the Rule Name field.
5. Verify that the Field Service status rule is correct.

The seeded Field Service status rule is defined in the following table:

Current State	Next State
In Planning	Assigned
In Planning	Cancelled
Assigned	Accepted
Assigned	Rejected
Assigned	Cancelled
Assigned	Completed

Current State	Next State
Assigned	Working
Accepted	Rejected
Accepted	Cancelled
Accepted	Working
Rejected	Assigned
Rejected	Accepted
Rejected	Cancelled
Rejected	Working
Cancelled	In Planning
Cancelled	Assigned
Cancelled	Closed
Completed	Closed
Working	Cancelled
Working	Completed
Working	Interrupted
Interrupted	In planning
Interrupted	Assigned
Interrupted	Cancelled
Interrupted	Completed
Interrupted	Working
Unassigned	In Planning
Unassigned	Assigned
Unassigned	Cancelled

D.2 Assigning the State Transition Rule to a Responsibility

Steps

Complete the following steps to assign the state transition rule to a responsibility:

1. Click the Responsibility tab.
2. Select a responsibility in the Responsibility field.
3. Assign the rule to the responsibility by selecting the rule name in the Rule field.
4. Save your work.
5. Close the form.

Signature Capture

A field service representative can capture the signature of a customer after performing the debrief on the Palm handheld. The signature is then synchronized with the Oracle 11i instance.

The captured signature can be viewed as an attachment on Forms in the appropriate debrief screen. Viewing a signature in the Debrief form is exactly the same as viewing any other attachment.

On the toolbar, there is paper clip icon. When you select an attachment linked to the Debrief, the icon changes to a paper clip attached to a yellow document.

If the attachment viewer in the Forms application is not working, then check that the entries in `wdbsver.app` (found in the Forms tier setup) are similar to the following:

- `connect_string = mobxbld1`
- `password = apps`
- `username = apps`
- `default_page = APPS.fnd_web.ping`
- `document_table = APPS.fnd_lobs_document`
- `document_path = docs`
- `document_proc = (null)`
- `name_prefix = (null)`
- `always_describe = (null)`
- `after_proc = (null)`
- `before_proc = (null)`

-
- reuse = YES
 - connmax = 30
 - upload_as_long_raw = (null)
 - upload_as_blob = *
 - pathalias = fndgfm
 - pathaliasproc = fnd_gfm.dispatch

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