Technical Reference

QAD Mobile Field Service

QAD Mobile Field Service Overview
Installing QAD Mobile FS
Using QAD Mobile FS

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Chapter 1

QAD Mobile Field Service Overview

QAD Mobile Field Service is a set of programs to enable engineers and technicians to review and create data in the field using PDAs or laptops. This chapter summarizes the product deployment, installation, use, and administration.

QAD Mobile Field Service Overview

This guide covers the installation, use, and administration of the QAD Mobile Field Service product (QAD Mobile FS). QAD Mobile FS lets field engineers or technicians access and enter service call information remotely from devices such as a personal digital assistant (PDA) or laptop.

QAD Mobile FS is a store-and-forward application. Users run the application on mobile devices independent of a connection to a central server. This requires periodic synchronization of the client and server data stores. QAD Mobile FS remote access and updates let field personnel:

- Review and update assigned calls.
- Create new calls.
- Report call activity.
- Order spare parts and parts to use for a call.

This book is divided into two sections: installation and user information. The installation section covers server and client installs. User information describes the use of the QAD Mobile FS application and details the data flow between QAD ERP and QAD Mobile FS.

Installing QAD Mobile FS

QAD Mobile FS assumes a production installation of QAD ERP and both QAD QXtend Inbound (QAD QXI) and QAD QXtend Outbound (QAD QXO). For details on these installations, see the installation guide for your QAD ERP version and *Technical Reference: QAD QXtend.* An additional component that must be installed is:

OneBridge Server. This product ensures the currency of the mobile application and provides the means of synchronizing programs and data between the host and the clients.

Deploying QAD Mobile FS

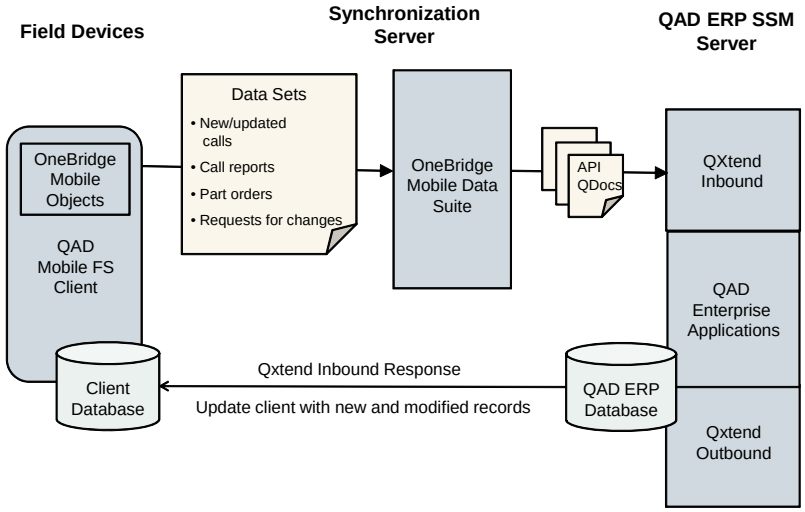
QAD Mobile FS is a set of field service programs installed to field devices. It requires the QAD ERP Service/Support Management module (SSM) as the base application. SSM serves as the source of QAD Mobile FS data and the target for QAD Mobile FS updates.

Between the QAD Mobile FS field devices and the QAD ERP SSM server is a synchronization server. The synchronization server delivers the QAD Mobile FS application and application updates to the field devices. It also synchronizes the QAD ERP server and the field device data.

Note On a Windows platform, the QAD ERP server and synchronization server could be installed on the same physical machine. However, since the OneBridge synchronization server only runs on Windows, two machines are required when QAD ERP is running in a UNIX environment.

The software required to synchronize the data are OneBridge server and QAD QXI and QAD QXO. On the client, QAD Mobile FS is required.

Fig. 1.1
QAD Mobile FS Architecture



During a synchronization, the QAD Mobile FS client on the device first generates data to be sent to QAD ERP of any new or changed calls, visits, call reports, or parts orders. The data is put into datasets, which are passed through QXI Service API. QXI then updates the appropriate tables in the QAD ERP database with changes made on the device.

QXO is used to record the changes made to related QAD ERP tables. The changes—Add, Modify, and Delete—need to be applied in the client, added to output datasets, and sent out through QXI Service API.

OneBridge

The OneBridge server is a third-party product that provides connectivity and synchronization between data servers—such as QAD ERP SSM—and field devices—such as Windows Mobile-based PDAs or laptops. The OneBridge server provides the following services for QAD Mobile FS:

- Establishing connectivity between devices and the SSM server
- Authenticating users during synchronization
- Enabling access to server-based objects from client through Mobile Objects

Mobile Objects are used to send and retrieve the input/output datasets for changed records.

Client Components

Two client components are installed on the device: a QAD Mobile FS client and Mobile Object Client Library. The components required to create the client database are included with the QAD Mobile FS client.

The Mobile Object Client libraries are included in QAD Mobile FS client.

Using QAD Mobile FS

The production QAD ERP application serves as the source database and application for your service and support operations. Additional tables and several additional programs in QAD ERP are required to support QAD Mobile FS. Each user must be configured in QAD Mobile User Maintenance (11.1.12).

You can use QAD Mobile FS from either a pocket PC (PDA) or laptop. The user interface is almost identical on both types of devices. The chapter on using QAD Mobile FS includes a description of the differences. See “Differences on Pocket PCs” on page 49.

Set Up QAD Mobile FS Data

Before beginning synchronization with devices, each device user must be defined in QAD ERP using QAD Mobile User Maintenance (11.1.12). Settings in this program are used to authenticate the device user and also determine how data is replicated and updated on the device. See “Define QAD Mobile FS Users in QAD ERP” on page 33.

Admin settings are also provided on the device. Before you can begin the synchronization process, you must define settings such as the Windows domain for log on.

Perform an Initial Synchronization

The initial synchronization validates user credentials and creates a local database on the device that contains records related to each engineer. After the initial sync, users can perform full or partial synchronizations to keep the device up-to-date and send data back to QAD ERP. See “Perform Initial Full Sync” on page 40.

View and Update Calls

When calls are entered in Call Maintenance (11.1.1.1) in QAD ERP, field personnel can launch QAD Mobile FS, synchronize with the server, and view a listing of the calls assigned to them and then drill down to see additional call detail. Calls of one line can also be created in the device.

The call listing is sorted by customer end user, service item, severity, call ID, call line number, service type, visit date, and call status. The field engineer can make limited updates to existing calls on the device and create new calls if necessary. They can reassign the engineer, reschedule visits, and modify call status, service items, and work codes. However, they cannot add call lines or change the call ID. See “Creating and Updating Calls” on page 50.

Report Call Activity

After the field work is completed, the engineer records the activity on the call. Reporting includes labor hours, expenses, inventory and service parts, parts returned, problem causes, and any relevant notes. The next time the field device is synchronized with the server, the call activity is reported back to QAD ERP. See “Reporting Call Activity” on page 56.

Order Parts

Field engineers can also enter parts orders for required parts. When the device is synchronized with the server, the order is created in QAD ERP. Service parts can be shipped to either the call end user address or to the field engineer; inventory parts can only be shipped to the field engineer. See “Ordering Parts” on page 63.

Synchronization Data Flow

Data may originate at either the SSM server or the field device. The synchronization process is initiated at the client device. It proceeds through the following steps:

1. Launch synchronization in the QAD Mobile FS application.
2. The user is authenticated.

   The user must be a valid user on the sync server. The validation is done through the OneBridge software.
3. Send new or updated calls, call activity reports (CARs), and parts orders from the device to SSM.

   Each record on the device is checked and sent or resent if one or more fields have changed on the record.

   The import of data into QAD ERP is accomplished using QAD QXI.
4. Process records from device on the SSM server.

   Record ID numbers are changed or accepted:

   - Temporary ID numbers may be given to calls and parts orders created on the field device based on implementation setup. When these records are synchronized, they are given permanent ID numbers in SSM. If they are synchronized back to the device—for example, when the call remains assigned to the originating field engineer—the permanent ID appears on the device and cannot be modified.
   - When permanent ID numbers are given on the device, these are accepted as is in SSM.

   Time zones are entered:

   - If multiple time zones (MTZ) is turned on in SSM, data is entered in the device end user’s time zone and displays in that time zone on the device and in QAD ERP after synchronization.
5. Send new and updated calls or orders from SSM to the device. CARs are not sent from SSM to the device.

   The calls and orders to be synchronized are determined by server-side change detection programs. Transactional data related to service activity is assumed to be more reliable in the field device and this data is left on the device as-is. The export of data from SSM is accomplished through QXI Service API.
6. Update the device database.

   Calls are deleted from the device database if:

   - The status is cancel, complete, close, or hold.
   - The call is reassigned to another engineer.

Calls are updated:

- With new calls originating in SSM assigned to the field engineer
- With new call information
- With the permanent call ID for calls originating on the device when temporary IDs are assigned
- With service item coverage information (if no service item change occurred on the device call)

Parts orders are deleted if:

- All quantities are consumed in call activity recording.
- The associated call is reassigned to another engineer.

Parts orders are updated:

- With new orders originating in SSM assigned to the field engineer
- With new order information
- With the permanent order ID for orders originating on the device when temporary IDs are assigned.

Chapter 2

QAD Mobile FS Requirements

This chapter provides system requirements and software prerequisites for the QAD Mobile FS server and clients:

General Requirements

Before installing QAD Mobile, you must install Progress, QAD ERP, and QAD QXI. The Progress install for each platform may include UNIX kernel changes and patches.

QAD ERP Database Server

The database server contains Progress and QAD ERP. The requirements listed are only for the incremental QAD Mobile FS requirements beyond those of Progress and QAD ERP.

Hardware Requirements

- 1 MB of free disk space
- High-speed 100 Mbps network card
- ISO9660 CD-ROM
- 2 disk controller channels (minimum)

Software Prerequisites

- Operating system patches.
- OpenEdge 10.1C03 or later.
- MFG/PRO eB2.1 SP4 or the following versions of QAD Enterprise Applications: 2007, 2007.1, 2008 SE, 2008.1 SE, 2009 SE, 2009 EE, 2009.1 EE, 2010 EE.
- QAD QXI and QAD QXO version 1.6.1 or later.

Upgrading QAD ERP after Installing QAD Mobile

If you decide to upgrade your underlying version of QAD ERP after installing QAD Mobile, you will need to take special steps to preserve the data set up in the QAD ERP database. Before beginning such an upgrade, contact QAD Support for specific instructions relevant to your implementation.

Synchronization Server

The synchronization server is a Windows machine that contains the OneBridge server. QAD QXI can reside on this machine or the database server. However, QAD recommends it reside on the database server to have more direct access to the QAD ERP code and database.

Important Review the QXtend documentation for version-specific requirements.

Hardware Requirements

- Pentium 4, 2 GHz minimum processor or higher server-class machine. Dual processors enhance performance.
- A server-class machine that supports industry standards for hard drive redundancy/fail-over with sufficient storage space.
- Memory: 2 GB minimum required, 4 GB for 500–1000 users.

- Application disk space: 3 GB for 100 users, 15 GB for 500 users, 30 GB for 1000 users.
- Data/log storage: 32–64 GB.
- TCP/IP LAN connection.

Supported Operating Systems

- Windows Server 2003

Additional information is available from iAnywhere regarding fail-over/redundancy provision and layering/clustering of multiple synchronization servers and/or database sync adapters. A single machine with the above recommendations should support up to 1000 users with 10% concurrency.

Software Requirements

- Sybase iAnywhere OneBridge Mobile Data Suite 5.5 DP2
- QAD Mobile Server Package 3.0.1

Note The synchronization server is not compatible with Microsoft .NET Framework 3.0 and later.

Client Devices

There are two possible types of client devices:

- Pocket PC PDA
- Personal computer, such as a laptop

Hardware Requirements

PDA

- 400 MHz or faster processor
- 64 MB of RAM

The QAD Mobile FS application and database requires 3–4 MB in storage, and an additional 3–4 MB in resources when executing.

For supported Pocket PC devices, see the following Web sites:

- iAnywhere (http://www.ianywhere.com)

Laptop

- Intel Pentium (or compatible) processor
- Minimum OS required disk space and memory

Software Requirements

PDA

- Windows Mobile 2003 SE, Windows Mobile 5.0, or Windows Mobile version 6, 6.1, or 6.5 (Professional or Classic) operating system
- QAD Mobile FS 3.0.1
- Microsoft SQL Server 2005 Compact Edition
- Microsoft .NET Compact Framework 2.0 Service Pack 2
- Microsoft ActiveSync (if installing from a connected PC)

You can download the latest ActiveSync version for no charge from the Microsoft download center:

http://www.microsoft.com/windowsmobile/downloads/

Laptop

- Windows 2000 SP4 or higher, Windows XP SP1 or higher
- QAD Mobile FS 3.0.1
- Microsoft Access (run-time version included with OS install)
- Microsoft .NET Framework 2.0
- Microsoft Visual J# 2.0 Second Edition

Network Requirements

Set up your network to support Progress networking specifications. See the *Progress Networking Guide* for details. Minimum requirements for QAD Mobile FS are:

- 10 Megabit (Mb) Ethernet or faster network

Section 1

Installing QAD Mobile FS

This section covers the QAD Mobile FS installation.

Chapter 3

Installing QAD Mobile FS Components

QAD Mobile FS is a set of programs to enable engineers and technicians to review and create data in the field using PDAs or laptops. This chapter describes installation of those components required to connect and synchronize the field devices with the QAD ERP SSM server.

QAD Mobile FS Installation Overview

This chapter guides you through the steps required to install and configure QAD Mobile FS. After completing these steps, you must then set up data required by the application before you can sync the devices and begin to use the product. These additional steps are described in Chapter 4.

This chapter covers the following steps:

- Update QAD ERP by loading schema and data files, compiling code, and loading field help.
- Configure QXtend Inbound to recognize the QDocs needed to pass information from the device to QAD ERP.
- Configure QXtend Outbound to log changes made to related QAD ERP tables.
- Install the OneBridge Sync Server product.
- Install the required components on the client devices.

Note If QAD QXtend has been installed before, the QXtend Inbound Adapter and QXtend Outbound Adapter need to be reinstalled.

Update QAD ERP

You must complete two steps to configure QAD ERP for use with QAD Mobile FS:

- Load schema and data files and compile code.
- Load field help for the new QAD ERP program.

Update QAD ERP Databases

1. Stop all servers, including Tomcat Webapps, WebSpeed brokers, and QAD ERP database servers.
2. Copy all the files from the `\Server\SSM\`*`QADERPVer`* directory on the QAD Mobile FS installation media into the *`QADERPInstallDir`*`\ssmpatch` directory.
3. If you are using eB2.1 SP4, QAD 2007 SE, or QAD 2007.1 SE, copy the files from the `\Server\QADUI` directory on the QAD Mobile FS installation media into the directory:

   `QADUIInstallDir``/com/qad/shell/interface`
4. Run MFG/UTIL and choose Database|Load Database Schema to load the following schemas into the QAD ERP databases.

   Note Use QDTAdmin instead of MFG/UTIL if you are running QAD EE. This applies to all subsequent steps.

   - Load *`QADERPInstallDir`*`\ssmpatch\db\ssmpatch.df` and *`QADERPInstallDir`*`\ssmpatch\db\mfstriggers.df` into the production database.
   - Load *`QADERPInstallDir`*`\ssmpatch\db\ssmpatch.df` and *`QADERPInstallDir`*`\ssmpatch\db\mfstriggers.df` into the empty database.
5. Perform this step only if you are using QAD 2009 SE or QAD 2009 EE.

   Run *`QADERPInstallDir`*`/ssmpatch/xrc/utssmbrw.p` from a Progress editor that is connected to both the main production database and admin database.

6 In MFG/UTIL, choose Database|Load System Data into Database to load data into the QAD ERP databases.

   a Load data from *QADERPInstallDir*\ssmpatch\data into the production database. Accept default selected tables in the process.

   b Load data from *QADERPInstallDir*\ssmpatch\data into the administration database. Accept default selected tables in the process.

   c If you have implemented additional languages, load data from *QADERPInstallDir*\ssmpatch\data*LanguageCode* into the production database. Accept default selected tables in the process.

7 Perform a full system compile. The Compile PROPATH should include the *QADERPInstallDir*\ssmpatch\xrc directory before the *QADERPInstallDir*\xrc directory.

8 Compile SSM bolt-on code.

   a Choose Programs|Generate Compile List File.

   b Use *QADERPInstallDir*\ssmpatch\xrc as the Source Directory.

   c Choose Programs|Compile Procedures.

   d Enter the compile list file from the previous step. For eB2.1 and QAD SE, use the following PROPATH:

   QXOAdapterInstallDir,*QADERPInstallDir*\ssmpatch\xrc,*QADERPInstallDir*\xrc

   For QAD EE, use the following PROPATH:

   QXOAdapterInstallDir,QADERPInstallDir\ssmpatch\xrc,QADERPInstallDir\xrc,*QXOAdapterInstallDir*\src

   Specify *QADERPInstallDir*\ssmpatch as the destination directory.

   e If you have implemented additional languages, repeat the compile process using the appropriate language and language-specific compile database set.

9 Compile QAD ERP Desktop code. In MFG/UTIL, choose UI|Build UI Configuration and add *QADERPInstallDir*\ssmpatch\xrc,*QXOAdapterInstallDir* in front of the PROPATH.

10 Edit the PROPATH in all client scripts to add *QADERPInstallDir*\ssmpatch,*QXOAdapterInstallDir* in front of the PROPATH.

11 Add a database connection for qxevents (alias_qxevents as logical name) in the server startup/shutdown scripts and .pf files.

12 Modify the ubroker.properties file.

- If you use QAD .NET UI, add *QADERPInstallDir*\ssmpatch,*QXOAdatperInstallDir* in front of the PROPATH. Also, add `srvrStartupProc=mfaistrt.p` and `srvrStartupProcParam=qra` to the qadui AppServer.
- If you do not use QAD .NET UI, manually create an AppServer entry. Use the following example as a guide:

```
[UBroker.AS.qadui]
   srvrLogFile=QADERPInstallDir/qadui/qadui.server.log
   brokerLogFile=QADERPInstallDir/qadui/qadui.broker.log
   portNumber=39795
   initialSrvrInstance=2
   maxSrvrInstance=5
   operatingMode=Stateless
   autoTrimTimeout=600
   appserviceNameList=qadui
   controllingNameServer=NS1
   environment=qadui
   uuid=2993d17cfa993b70:-2eefabaf:11c88180435:-8000
   description=AppServer Transaction server for qadui
   srvrStartupParam=-pf QADERPInstallDir/qadui.pf (include the qxevents db with
logical name alias_qxevents and the qxo db with logical name qxodb)
   PROPATH=
QXOAdapterInstallDir:QADERPInstallDir/ssmpatch:QADERPInstallDir:QADERPInstallDir/s
smpatch/qra.pl:.
   srvrStartupProc=mfaistrt.p
   srvrStartupProcParam=qra
```

13 Restart all QAD ERP database servers, WebSpeed brokers, AppServers, and Tomcat Webapps.

14 Run *QADERPInstallDir*\ssmpatch\xrc\utssmse.p from a Progress editor that is connected to the main production database and admin database to perform data conversion.

Note Do not perform this step if you are using QAD 2009 SE, QAD 2009 EE, or later.

Load Procedure and Field Help

1 Log in to QAD Enterprise Applications.

2 Go to Field Help Load (36.4.19).

3 Specify US as the language and *QADERPInstallDir*\ssmpatch\data\fieldhlp.fhd as the field help load file.

4 Press Go.

Install and Configure QXtend Inbound

1 Install QXI following the QXI installation instructions in *Technical Reference: QAD QXtend*.

2 Access the QXtend Manager at:

`http://`*`hostname:tomcat_port`*`/qxtendserver/`

3 Suspend QXI.

4 Create an SI API connection pool to connect to the qadui AppServer.

5 Create a receiver for eB2.1, QADSE, or QADEE depending on which QAD ERP version you are using.

6 Create the following custom schemas and link them to the receiver you created. The schema files can be found under `\Server\QXI\schema\eB2_1` on the QAD Mobile Field Service installation media. The XML Syntax for each schema should be QDoc 1.1 and the Route should be SI API Adapter.

Request Path	Response Path	Procedure	Method Name
getAck-eB2_1.xsd		fsmfsent.p	getAck
getCallData-eB2_1.xsd	getCallDataResponse-eB2_1.xsd	fsmcaent.p	getCallData
getEndUserData-eB2_1.xsd	getEndUserDataResponse-eB2_1.xsd	fsmeuent.p	getEndUserData
getInventoryData-eB2_1.xsd	getInventoryDataResponse-eB2_1.xsd	fsmcrent.p	getInventoryData
getMOData-eB2_1.xsd	getMODataResponse-eB2_1.xsd	fsmmoent.p	getMOData
getSSMData-eB2_1.xsd	getSSMDataResponse-eB2_1.xsd	fsmfsent.p	getSSMData
updateCallData-eB2_1.xsd		fsmcaent.p	updateCallData
updateCARData-eB2_1.xsd		fsmcrent.p	updateCARData
updateMOData-eB2_1.xsd		fsmmoent.p	updateMOData
updateSyncTime-eB2_1.xsd		fsmfsent.p	updateSyncTime
registerDataChange-eB2_1.xsd		fsmfsent.p	registerDataChange

7 Perform this step only if you are running QXtend 1.6.1.

Extract `Server\QXI\patch\QXI161_Patch_for_MFS.zip` into *`QXIWebappDir`* under Tomcat.

8 Locate the `qxtendconfig.xml` file under `WEB-INF/conf` on the QXtend Inbound server. Modify the following line:

```
<encodedPasswords label="Passwords are encoded" value="false" />
```

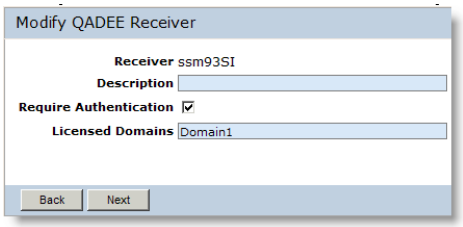
to:

```
<encodedPasswords label="Passwords are encoded" value="true" />
```

9 Perform this step if you want to enable QAD ERP authentication:

Select the Require Authentication check box on the Receiver Configuration screen.

Fig. 3.1
Create Source Application



If you are running QXtend 1.6.1, locate the `qxtendconfig.xml` file under the `WEB-INF/conf` folder of the QXtend Inbound server.

Modify the following line:

```
<useQDocRequestor label="Use QDoc Requestor" value="false"/>
```

to:

```
<useQDocRequestor label="Use QDoc Requestor" value="true"/>
```

You also must enable QAD ERP authentication in QAD Mobile User Maintenance (11.1.12). For details, see “Set Up Client Devices” on page 38.

10 Restart the Tomcat server.

11 Enter the following license code into QXtend Inbound to support the QXtend Outbound interface: PdJWwmKaK#NjHTq

Install and Configure QXtend Outbound

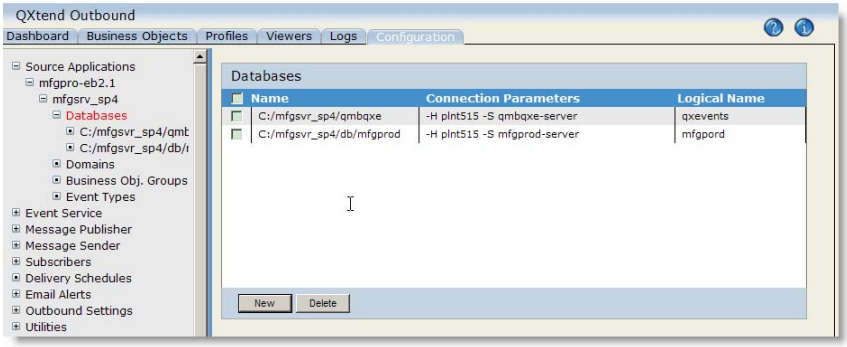
1 Install QAD QXO following the QAD QXO installation instructions in *Installation Guide: QAD QXtend*.

2 Do the following:

- **a** Back up `compile.lst` in *`QXOAppServerInstallDir`*`\install`.
- **b** Extract corresponding QXO patch from `Server\QXO\patch` into *`QXOAppServerInstallDir`*; for example, `QXO161_Patch` for QXtend 1.6.1, `QXO162_Patch` for QXtend 1.6.2, and so on.
- **c** Modify *`QXOAppServerInstallDir`*`\install\compile.sh` to reflect the correct DLC and QXOSRV values.
- **d** Run *`QXOAppServerInstallDir`*`\install\compile.sh` to compile the patch.
- **e** Extract `QXOWebapp.zip` from the corresponding folder in `Server\QXO\patch` into *`QXOWebappDir`* under Tomcat.
- **f** Restart the Tomcat Server.

3 Create a source application that is appropriate for your QAD core product; for example, create a QADSE source application for QAD 2008 SE, or a QADEE source application for QAD 2009 EE, and so on.

Fig. 3.2
Create Source Application

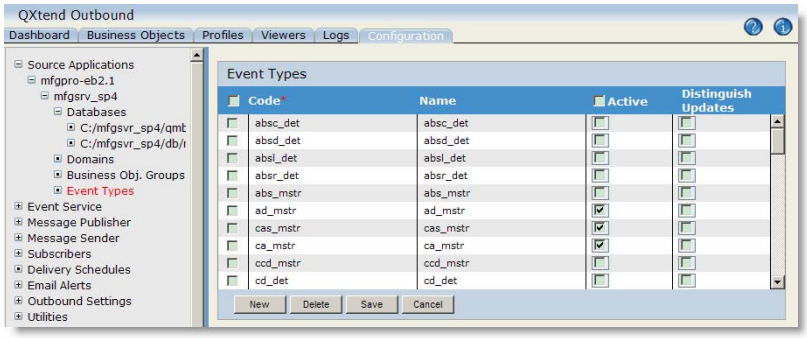


4 Copy `Server\QXO\events\event.xml` to *`QXOAppServerInstallDir`*`\events\`*`SrcAppType`*

where *SrcAppType* is the source application type; for example, mfgpro-eb2.1 for eB2.1 SP4 and QADSE for QAD 2008 SE.

5 Click the Import button and select the Active check box for all the event types.

Fig. 3.3
Add Event Types



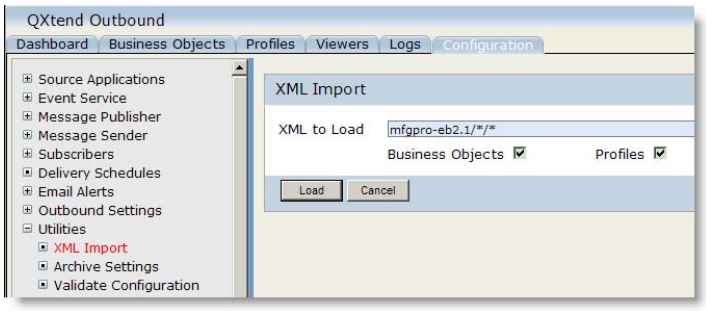
6 Perform this step only if you are running QXtend 1.6.1.

Extract Server\QXO\boXML\QXO_BO_*Version*.zip into *QXOAppServerInstallDir*\boXML*SrcAppType* where *version* is one of three values depending on your QAD ERP version:

- eB21SP4 for eB2.1 SP4
- QADSE for 2007 SE, 2007.1 SE, 2008 SE, 2008.1 SE, and 2009 SE
- QADEE for 2009 EE and later

7 In QXO, select Utilities|XML Import. Enter *SrcAppType*/QADMobile*/* as the XML to Load and load both business objects and profiles.

Fig. 3.4
Import XML



8 Create a subscriber with the following parameter values:

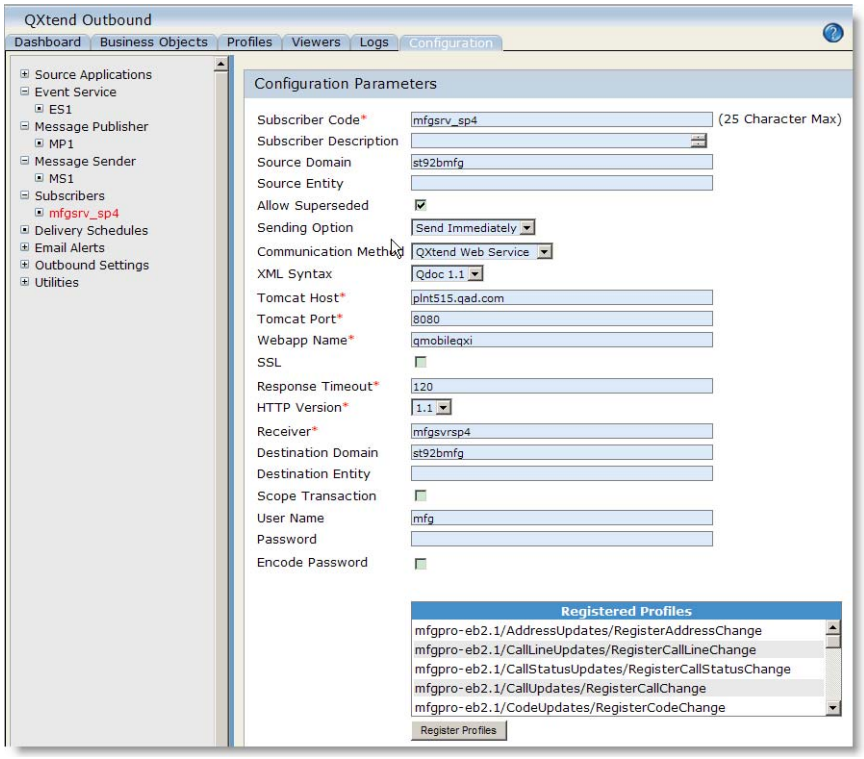
Parameter	Value
Source Domain	The domain in which you want to track changes
Allow Superseded	Enabled
Communication Method	QXtend Web Service
XML Syntax	Qdoc 1.1
Tomcat Host / Port	For QXI

Parameter	Value
Webapp Name	For QXI
Receiver	For eB2.1 to receive registerDataChange
Destination Domain	Same as the source domain
Encode Password	Enabled

Register your source application and the following profiles with the subscriber (use profile filter “Register*” to simplify the selection):

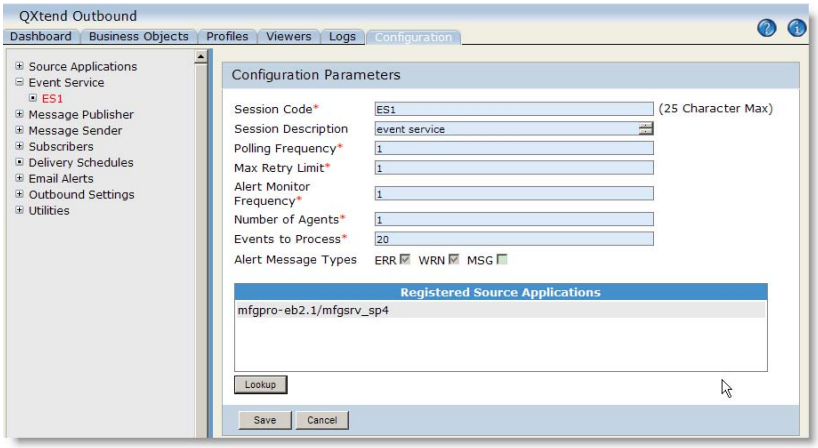
RegisterAddressChange, RegisterCallLineChange, RegisterCallStatusChange, RegisterCallChange, RegisterCodeChange, RegisterCommentChange, RegisterContractLineChange, RegisterEndUserChange, RegisterEngineerChange, RegisterInventoryChange, RegisterISBConfigChange, RegisterISBChange, RegisterItemChange, RegisterMOLineChange, RegisterMOChange, RegisterPartsChange, RegisterReturnStatusChange, RegisterSerialMOChange, RegisterStdOpChange, RegisterSvcCategoryChange, RegisterSvcTypeChange, RegisterVisitChange, RegisterWorkCodeChange

Fig. 3.5
Create a Subscriber



9 Create an event service and register your source application.

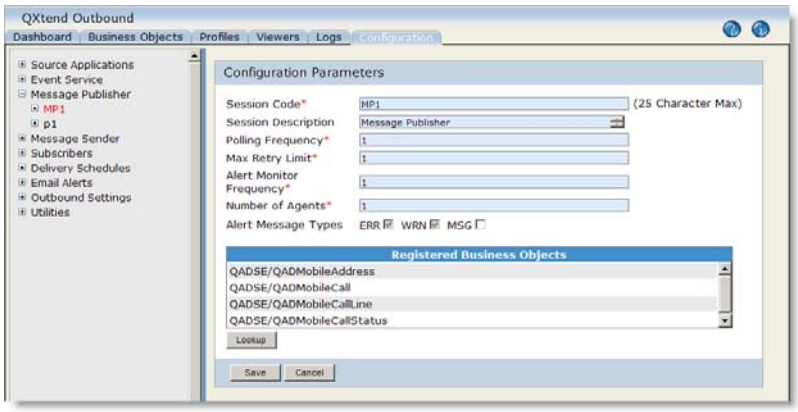
Fig. 3.6
Create an Event Service



10 Create a message publisher and register the following business objects with it:

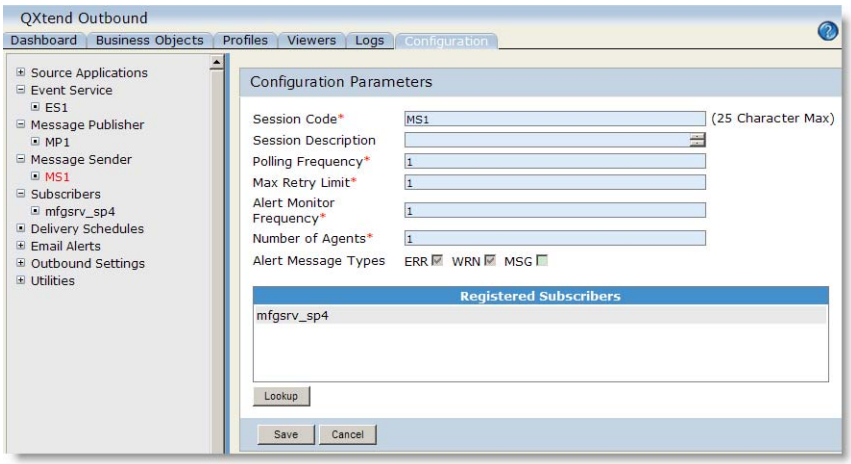
QADMobileAddress, QADMobileCallLine, QADMobileCallStatus, QADMobileCall, QADMobileCode, QADMobileComment, QADMobileContractLine, QADMobileEndUser, QADMobileEngineer, QADMobileInventory, QADMobileISBConfig, QADMobileISB, QADMobileItem, QADMobileMOLine, QADMobileMO, QADMobileParts, QADMobileReturnStatus, QADMobileSerialMO, QADMobileStdOp, QADMobileSvcCategory, QADMobileSvcType, QADMobileVisit, QADMobileWorkCode

Fig. 3.7
Create a Message Publisher



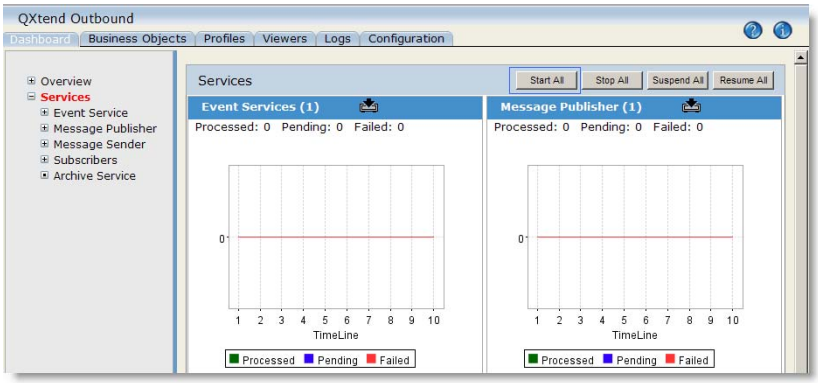
11 Create a message sender and register your subscriber with it.

Fig. 3.8
Create a Message Sender



12 Restart QXtend Outbound by going to Dashboard|Services and selecting the Start All button.

Fig. 3.9
Restart QXtend Outbound



Install OneBridge Sync Server

Note QAD provides a serial number for OneBridge. This license allows you to use the required OneBridge Mobile Data Suite components.

Install OneBridge Sync Server Files

1 Run `\OneBridge\Server\omds.exe` from the QAD Mobile FS CD to install the Sync Server.

2 From the OneBridge installer screen, select Sync Server and click Install Now.

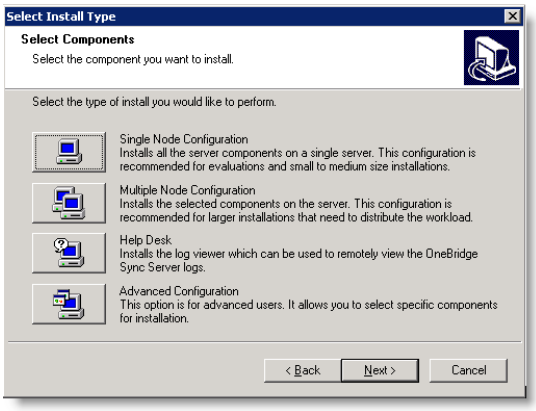
3 If Windows Installer 3.1 is not detected on the installation machine, you will be prompted to install it prior to beginning the OneBridge installation. Click Yes and proceed with the installation.

4 If Microsoft .NET Framework 2.0 is not detected on the installation machine, you will be prompted to install it prior to beginning the OneBridge installation. Click Yes and proceed with the install.

5 On the OneBridge installer, click Yes to accept the License Agreement.

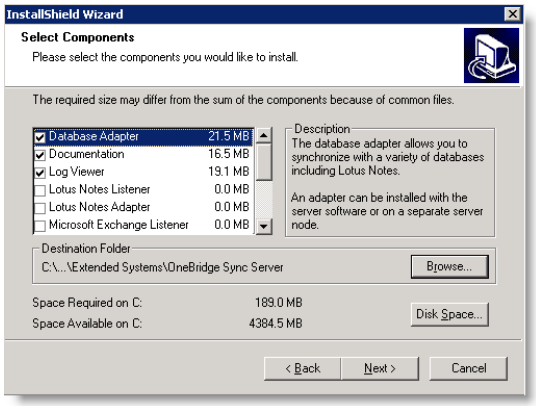
6 Choose Single Node Configuration as the install type.

Fig. 3.10
Select Install Type



7 Choose the components you want to install. Database Adapter, Documentation, and Log Viewer are required components.

Fig. 3.11
Select Components

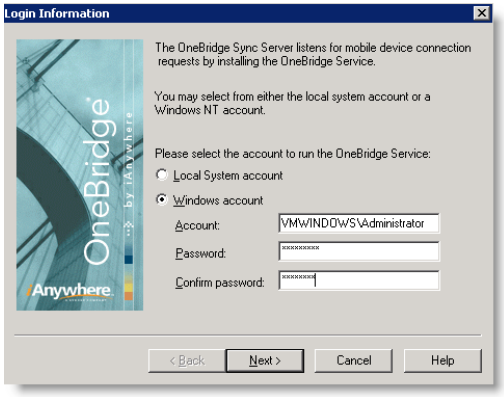


8 Choose the Destination Folder for the components and click Next.

9 Choose the Data Directory for the Sync Server data and click Next.

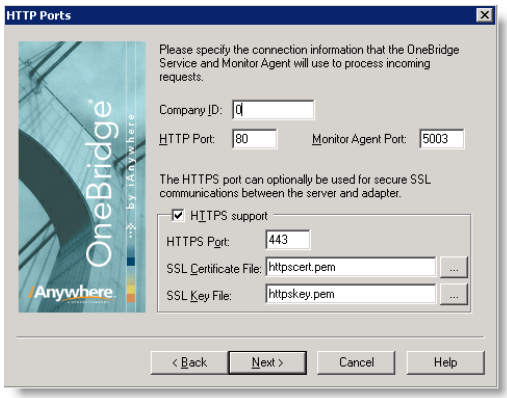
10 On the Login Information screen, select the account to run the OneBridge Service. Click Next.

Fig. 3.12
Login Information



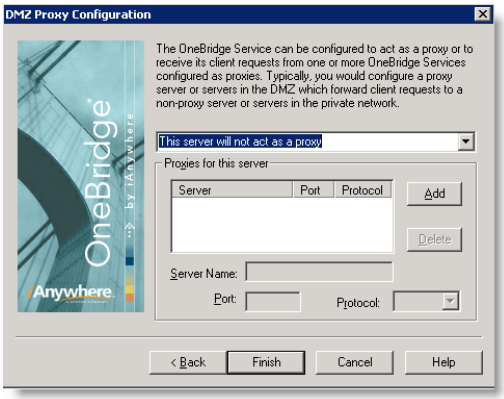
11 Select the ports for the service that will listen for client and adapter requests. Leave the default value for all the other fields. Click Next.

Fig. 3.13
HTTP Ports



12 On the DMZ Proxy Configuration screen, click Finish.

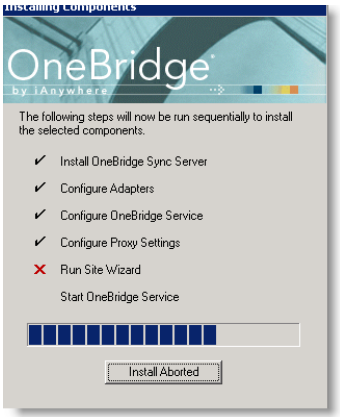
Fig. 3.14
DMZ Proxy Configuration



13 On the Site Wizard screen, click Cancel.

14 On the Installing Components screen, click Install Aborted.

Fig. 3.15
Abort Installation



15 Run the following file from the QAD Mobile FS CD to install the patch for OneBridge Sync Server:

`\OneBridge\Server\OneBridgePatch5.5.2009.0323.exe`

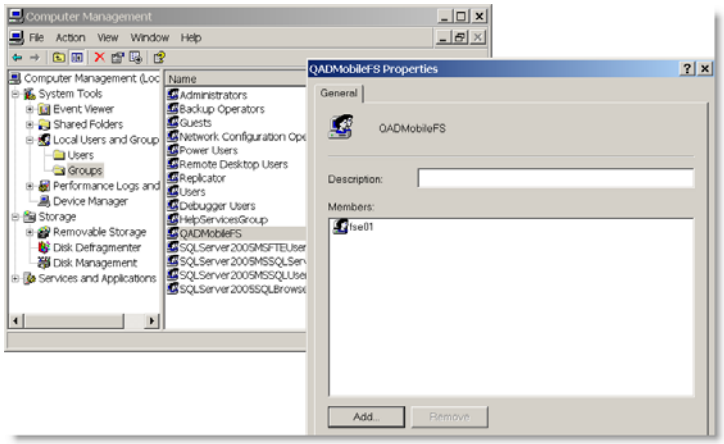
Do not start the OneBridge service if prompted.

16 Run `setup.exe` from the `\Server\Setup` directory on the QAD Mobile FS CD. Accept the default directory locations. The install directory should be the OneBridge server directory; for example:

`C:\Program Files\Extended Systems\OneBridge Sync Server`

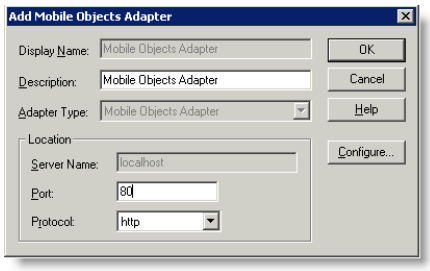
Configure OneBridge Sync Server

1 Create a Windows group for QAD Mobile FS users; then create Windows users for field service engineers and add them into this group.



2 Launch OneBridge Sync Admin and select `QADMobileFS_301.xcf` on the QAD Mobile FS CD as the configuration file from the More Files... option. The OneBridge Sync Admin screen displays.

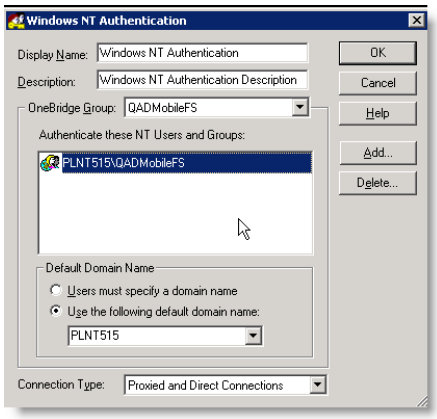
3 Right-click Mobile Objects Adapters|Mobile Objects Adapter under the Connect Configuration|General folder and select Configure to configure the Mobile Objects Adapter. Answer Yes when prompted to start the OneBridge service.



Note If you installed the OneBridge sync server using a port other than the default 80, you must first change the Database Adapter to use your new port also. To do this, enter your port number for the adapter and then continue with the QAD ERP database updates.

4 Right-click Authentication on the configuration tree, select New, and then click Windows NT Authentication.

The Windows NT Authentication window displays. Select a OneBridge group and click Add to set up authentication for sync users. Authenticate the Windows group you created earlier.



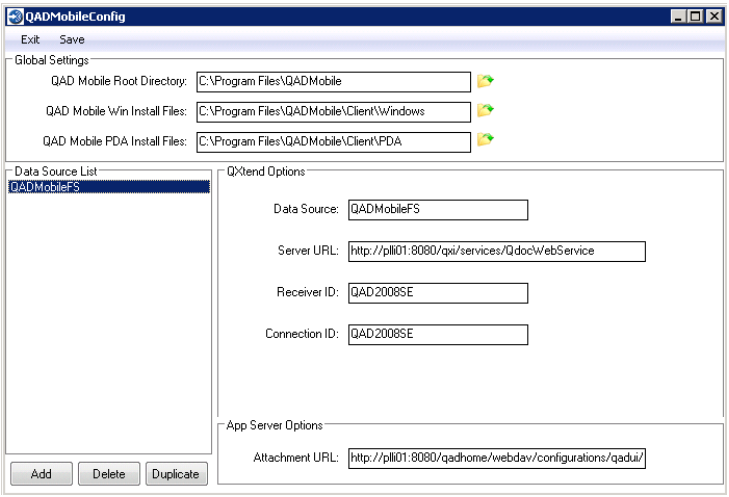
5 Restart the OneBridge service using File|Restart Service.

Set Up QAD Mobile Server Configuration

1 From the OneBridge server installation `\bin` directory, run `QADMobileConfig.exe` to set up the authentication configuration.

2 Configure settings on the QAD Mobile FS Configuration screen.

Fig. 3.16
Configure QAD Mobile FS



Global Settings

QAD Mobile Root Directory. Enter the root directory where QAD Mobile is installed.

QAD Mobile Win Install Files. Enter the location of the install files.

QAD Mobile PDA Install Files. Enter the location of the CAB files to install the MFS clients.

Note These options are used to determine if new versions of the client are available on the sync server.

Click Add to create a new data source.

QXtend Options

Data Source. Enter the OneBridge group name.

Server URL. Enter the QXtend Inbound server URL.

Note Include `\services\QdocWebService`.

Receiver ID. Enter the Receiver name set up in QXtend Inbound.

Connection ID. Enter the connection name set up in QXtend Inbound.

App Server Options

App Server Attachment URL. Specify the location on the QAD .NET UI home server where to synchronize field service reports as attachments:

`HomeServerURL``/webdav/configurations/`*`SystemEnv/`*` storage/attachments/`

You can find the *`HomeServerURL`* value in the `QAD.client.exe.config` file located under the container folder in the .NET UI client installation directory. *`SystemEnv`* is the system environment you want to synchronize field service reports with.

3 Restart the OneBridge Sync service for the changes to take effect.

Install Client Components

The steps you take to install components on your devices depend on whether you are using laptops or PDAs. Choose the appropriate section.

Install Client Components on Laptops

Install Microsoft .NET Framework 2.0 on a Laptop

Run `\Redistribute\Microsoft.NET\dotnetfx.exe` from the QAD Mobile FS CD to install Microsoft .NET Framework 2.0.

Install Microsoft Visual J# 2.0 Second Edition

Run `\Redistribute\Microsoft.NET\vjredist.exe` from the QAD Mobile FS CD to install Microsoft Visual J# 2.0 Second Edition.

Install the QAD Mobile FS Client on a Laptop

1. Run `\Client\Installation.exe` from the QAD Mobile FS CD.
2. Choose QAD Mobile FS Client for Windows and click Install Now.
3. The QAD Mobile FS client for Windows Setup screen displays. Follow the on-screen instructions to complete the installation of QAD Mobile FS client.
4. Continue with the activities described in “Set Up Client Devices” on page 38.

Install Client Components on Pocket PC Devices

Your can install components on a pocket PC device in two ways:

- Use ActiveSync to connect to a laptop and install from the laptop to the device. This method assumes you created a deployment executable.
- Use the device to download files from an intranet or Internet site and install them locally.

QAD recommends the first approach because it is the most straightforward. However, the other approach is documented in case it is needed.

Install on Device from a Laptop

Prior to running these steps, make sure ActiveSync is working on the client device. Then, connect the client device to a local PC that is connected to the company network and make sure ActiveSync establishes a connection with the device. The following steps involve installing several components to a working directory on the PC, then copying them them to the device.

Install the QAD Mobile FS Client

1. Run `installation.exe` from QAD Mobile FS CD.
2. Choose QAD Mobile FS Client for Windows Mobile 2003, Windows Mobile 5, or Windows Mobile 6 depending on your device operating system and click Install Now.
3. At the QAD Mobile FS Client setup welcome and confirmation screens, click Next.
4. Installation of Microsoft .NET Compact Framework 2.0 begins. Wait until the end of the installation.

   Note If you already have .NET Compact Framework installed and want to skip this installation, you would answer No to the prompt to re-install and then select the Cancel button from the Add/Remove screen for other Windows Mobile programs.
5. If your mobile device operating system is Windows Mobile 5 or Windows Mobile 6, you will be prompted on your device to restart the device to complete the installation of Microsoft .NET Compact Framework 2.0. Do not restart now and select Cancel to continue.
6. On your laptop, click OK at the Application Downloading Complete prompt message:

   ```
   Please check your mobile device screen to see if additional steps are
   necessary to complete this installation.
   ```
7. Installation of Microsoft SQL Server 2005 Compact Edition begins. During the installation of its three installation packages, you may see the Application Downloading Complete prompt message on your laptop for three times. Each time, click OK to continue with the installation.

   Note If you already have SQL Server 2005 CE components installed and want to skip these installations, you would answer No to the prompt to re-install and then select the Cancel button from the Add/Remove screen for other Windows Mobile programs each time you are prompted.
8. QAD Mobile FS client installation begins. When this is complete, the Installation Complete window displays on the laptop. Click Close to close exit.
9. Restart your mobile device to complete the installation.
10. Continue with the activities described in “Set Up Client Devices” on page 38.

Install on Device from the Server

Complete these steps if your device cannot connect to a PC. These steps assume that a CD image is available on an intranet or Internet site.

Follow the steps below to install the two clients.

Install the QAD Mobile FS Client

1. Copy all the files from one of the following directories in the CD image to the `My Documents` folder on your device:
   - `\Client\wce400\CABFiles` (Windows Mobile 2003)
   - `\Client\wce500\CABFiles` (Windows Mobile 5)
   - `\Client\wce600\CABFiles` (Windows Mobile 6, 6.1, and 6.5)

2 Execute these files on the device from `My Documents`.

3 Continue with the activities described in “Set Up Client Devices” on page 38.

Complete the Setup

Continue with the steps outlined in the next chapter to set up data required before you can sync the devices.

Chapter 4

Setting Up QAD Mobile FS

Before you can begin to use QAD Mobile FS, you must complete some setup steps in QAD ERP as well as on the mobile device. This chapter covers those steps.

Set Up User Accounts

There are several types of user accounts used in QAD Mobile FS. As a system administrator, you need to set up these accounts before field engineers can use QAD Mobile FS properly.

QAD Mobile FS User Accounts

These accounts are specified on the synchronization server and also stored in SSM. In a synchronization request, field engineers provide the account credentials to pass the synchronization server authentication and to identify themselves in SSM.

1. On the synchronization server, create a synchronization account for each field engineer. For more information, refer to OneBridge Mobile Data Suite documentation.
2. In QAD ERP, specify the accounts you created in the previous step in QAD Mobile User Maintenance (11.1.12). For more information, see “Define QAD Mobile FS Users in QAD ERP” on page 33.

QAD ERP User Accounts

QAD ERP user accounts are used in the synchronization process for logging in to QAD ERP and updating data in SSM.

You can use a general QAD ERP user account for all synchronization requests from different QAD Mobile FS users. However, it does not let you track QAD Mobile FS user activities in terms of manipulating the SSM data.

In order to track the QAD Mobile FS user activities, you need to have each QAD Mobile FS user account associated with an QAD ERP user account. For each QAD Mobile FS user, create a corresponding QAD ERP user in User Maintenance.

Set Up SSM Data in QAD ERP

Before you can use QAD Mobile FS, you must set up all of the required data to support call tracking in the Service/Support Management (SSM) module. This includes data such as call statuses, types, queues, work codes, severity codes, and default call information.

Setting up call defaults helps to reduce data entry errors and ensure that the synchronization is error free. See the Setting Up Call Defaults section in *QAD ERP Applications User Guide: Service/Support Management* for details. You must also define the end users you plan to support and the types of service coverage you offer.

To help streamline the synchronization of item data between QAD ERP and the remote devices, you can associate service groups with items in Service Item Maintenance (11.3.7). You can then specify a range of service groups in QAD Mobile User Maintenance (11.1.12) to limit records to synchronize.

There are several steps to setting up users in QAD ERP:

1. Define remote users as QAD ERP users in User Maintenance (36.3.1).

   This step is required if you are using QAD ERP authentication. For ease of administration, you should use the same user IDs as those defined for the synchronization server.

2. Define the remote users as employees in Employee Maintenance (2.17.1).

3. Define the remote users as engineers in the Service/Support Management (SSM) module using Engineer Maintenance (11.13.1).

4. Optionally, move inventory in each engineer's site and location to be available for assigned calls using functions on the Inventory Control menu (3).

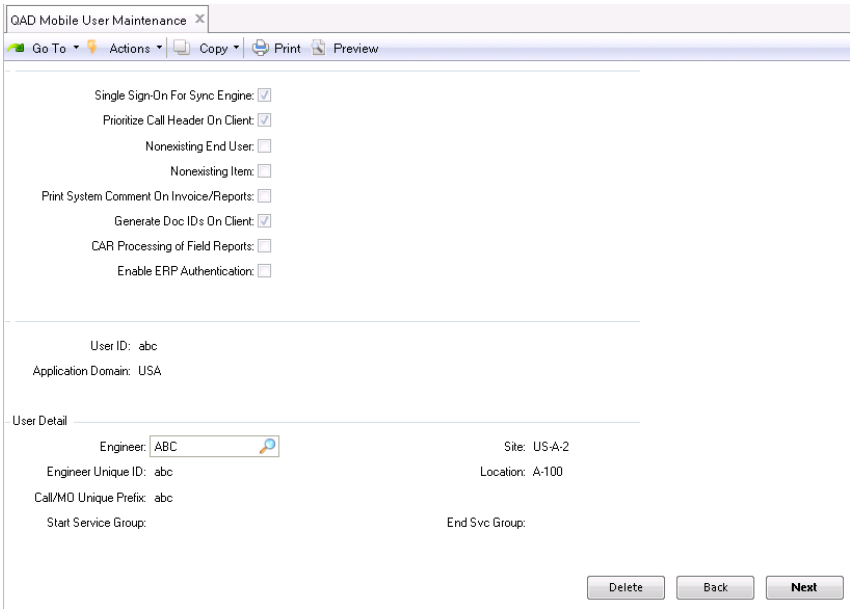
5. Optionally, associate the engineer with end users that they will regularly support by specifying their ID as the Engineer Code field of the Service Office Detail frame of End User Address Maintenance (11.9.1).

6. Define data required for the remote users in QAD Mobile User Maintenance (11.1.12). See the next section for details.

Define QAD Mobile FS Users in QAD ERP

When you configure QAD ERP, a new program is installed that lets you define the users that will access QAD ERP from remote devices and specify settings that manage how information is updated on their devices.

Fig. 4.1
QAD Mobile User Maintenance (11.1.12)



Use QAD Mobile User Maintenance (11.1.12) to:

- Specify settings that determine how information is updated on remote devices. You can choose to apply these settings to users in all domains or the current domain.

- Create records for individual users that access QAD ERP through mobile devices. The program lets you link a remote user ID with an engineer defined in QAD ERP and specify values that determine how QAD ERP records are replicated on the device. The program lets you specify an QAD ERP domain with which the engineer synchronizes data with through the sync engine user ID.

When users attempt to sync from a remote device, a configuration option lets two sets of authentications take place: one for the sync engine and the other for QAD ERP. To streamline synchronization, you can define the same IDs in the sync engine and in QAD ERP User Maintenance (36.3.1). You can then use the Single Sign-On for Sync Engine option to authenticate users. However, for this feature to work correctly, you must ensure that the IDs set up for the sync engine and those created in User Maintenance in QAD ERP are exactly the same.

You also define whether data at the call header or call line level determines what displays on remote devices.

Other values defined in this program affect which item and inventory records are available on a specific engineer's device:

- The domain in QAD ERP restricts all data access to a specified domain.
- The site and location determine the inventory detail records (ld_det) available during call activity recording for service item usage and returns as well as the records listed on the Inventory List screen.
- The start and end service group filter the items (pt_mstr) replicated from the item master that can be selected for a call or for a parts order.

In addition to these records, the following item data is also available on the device:

- Installed base records belonging to an end user on a call sent to the device
- Installed base records belonging to an end user whose primary engineer is the engineer associated with the device
- Items that do not match the service group but that are on a call or parts order sent to the device

Installed base records can be accessed when creating or updating a call, when returning an item while recording call activity, and when viewing the Installed Base Item List.

Configure General Sync Settings

Use the following field definitions to help you as you set up your users:

Single Sign-On For Sync Engine. Indicate how you want the system to authenticate users when they attempt to synchronize data with QAD ERP from remote devices.

No: The system will prompt the remote user to enter both OneBridge and QAD ERP credentials for authentication.

Yes: The remote user is prompted for OneBridge credentials only. The system also uses these credentials to validate against QAD ERP.

The setting defined here sets the default for each remote user. Individual users can modify the default setting in the Admin|Settings screen, but this will only be retained for the next synchronization executed.

Important If you specify Yes and you have enabled QAD ERP authentication in QAD Mobile FS, you must establish procedures to ensure that exactly the same IDs are set up in QAD ERP User Maintenance and in the synchronization engine.

This setting applies to all records you define in this program. It defaults to No until you create a record for a user. Then it defaults to the value for the first detail record. If you change the value for this field, the system prompts you to update all currently defined records with the new value. If you respond No, none of the records are updated.

Prioritize Call Header on Client. Indicate whether you want values associated with the call header or the call line to determine the work code and status displayed on the mobile device and updated in QAD ERP.

No: The call line values display on the device. When changes are made on the device, only the call line in QAD ERP is changed.

Yes: The call header values display on the device. When changes are made on the device, the call line value is updated in QAD ERP and the call header value is updated as well.

Note You cannot use a device to change the status of a call or call line to the close status as defined in Call Management Control. Calls can only be closed in QAD ERP.

This setting is typically set to Yes only when you normally create calls with a single line item. When Prioritize Call Header on Client is Yes and two call lines have different statuses, the call list on the device displays the call header status for both lines.

This setting applies to all records you define in this program. It defaults to No until you create a record for a user. Then it defaults to the value for the first detail record. If you change the value for this field, the system prompts you to update all currently defined records with the new value. If you respond No, none of the records are updated.

Nonexisting End User. Indicate whether end user IDs are validated during call entry on a QAD Mobile FS device:

No: The end user ID entered on a call in QAD Mobile must exist on the client.

Yes: The mobile user can enter the ID of an end user that does not already exist on their device. When the device is synchronized, this end user record must exist in QAD ERP or an error is generated.

Note See “Understanding Synchronized Data” on page 41 for a description of which end user records exist on the device.

Setting this field to Yes lets your remote engineer create a call for an end user for whom they have not previously provided service. This might be useful in an emergency when the regular engineer is not available.

Nonexisting Item. Indicate whether item numbers are validated during data entry on a QAD Mobile FS device:

No: The item number entered on a call or parts order in QAD Mobile must exist on the client.

Yes: The mobile user can enter an item number that does not exist on their device. For parts orders, this item must exist in QAD ERP or an error is generated during synchronization. For calls, if the item does not exist, it is treated like a memo item in QAD ERP when the data is synchronized.

Note See “Understanding Synchronized Data” on page 41 for a description of which item records exist on the device.

Print System Comment on Invoices/Reports. Indicate how you want the system to display comments that are automatically generated when a call is created on a QAD Mobile device. Call comments are always associated with the call header.

No: The generated comment is placed on its own page and marked to be included on internal reports only.

Yes: The generated comment is placed on the first page of comments along with the other notes. By default these print on both internal and external invoices and reports.

Note Each time the device is synchronized, any new comments created on the device create a new page of comments in QAD ERP.

Generate Doc IDs on Client. Indicate whether you want to generate temporary or permanent record IDs on the device for calls and parts orders.

No: Temporary record IDs are created on the client for new calls and parts orders. These are prefixed with three asterisks (***). New calls must be synchronized with the server to receive a permanent ID before activity can be recorded for them.

Yes: Permanent IDs are created on the client. The IDs are created using the value of Call/MO Unique Prefix entered in this program and the next sequential number maintained on the device.

When this field is Yes, you can update activity reports for a new call created on the device and not yet synchronized with your production database.

Process Call Reports. Specify whether the system automatically processes a call line that is set to the complete status on the client device and synchronized to the server.

Yes: The system automatically processes the call line and if successful, sets the call line status to complete. If the call line is completed, all unclosed visits scheduled for it are cancelled and removed from the client device.

No: The system does not process the call line data. The call line will remain in its original status until it is manually processed on the server side.

QAD ERP Authentication Enabled. Indicate whether you want to enable QAD ERP authentication.

Yes: Every time you perform synchronization, depending on your Single Sign-On setting, the system prompts you to provide either:

- Both OneBridge and QAD ERP credentials for authentication.
- OneBridge credentials and use the same set of user ID and password for both OneBridge and QAD ERP authentication.

No: When you perform synchronization, the system only prompts you to provide OneBridge credentials for authentication.

Note To enable QAD ERP authentication, you also need to modify the `qxtendconfig.xml` file on the QXI server. For details, see page 18.

When you change the sync settings and press Go, the system prompts you to determine how to apply the new sync settings.

```
Apply the settings to all domains?
```

Enter Yes to apply the new sync settings to all domains.

Enter No and the system prompts you whether to apply the sync settings to the current domain.

Yes: The new sync settings are applied to the current domain.

No: Changes to the sync settings are not applied or saved.

Configure Sync Settings for Individual Users

Use the following field definitions to create records for individual users that access QAD ERP through mobile devices:

Sync Engine User ID. Enter the ID that a field service engineer uses when connecting to the synchronization server. This value must be defined for the OneBridge server.

This field does not have to be the same as the QAD ERP user ID for the engineer as defined in QAD ERP User Maintenance, if used. However, if Single Sign-On for Sync Engine is Yes, the users defined for the synchronization engine should be the same as QAD ERP user IDs or errors may occur during synchronization.

Note Each user can determine during synchronization if single sign-on is to be used.

QAD ERP Domain. Enter the code identifying an active domain that a field engineer synchronizes with from remote devices through this sync engine user ID. The domain name displays next to the code.

Engineer code, site, location, and start/end service group you enter in the User Detail frame must be defined in this domain. Engineer unique ID and Call/MO unique prefix you define in the User Detail frame are also associated with the domain.

If you change the domain for an existing sync engine user ID and confirm the update, all entries in the User Detail frame are cleared and you must re-enter the user detail information.

A domain represents a business operation with a single currency and chart of accounts. Each database can have one or more domains. Each domain can include one or more entities, one of which is designated as the primary entity.

Engineer. Enter the engineer code—defined in Engineer Maintenance (11.13.1)—associated with this QAD Mobile user ID. The system uses this value to determine which calls and parts orders should be returned for a particular sync engine user ID and how calls and orders should be created in QAD ERP.

Site and location default from the engineer record if they are defined.

You can delete a record when your cursor is in this field.

Engineer Unique ID. Enter a unique ID (1–3 alphanumeric characters) to associate with call reports created for this engineer. The system uses this ID as a prefix for call activity reports and QDocs. The prefix ensures that record values coming from many devices are unique when created in QAD ERP. This value and Call/MO Unique Prefix display in the Unique Prefix field in the Settings page on the Admin menu on the mobile device.

Call/MO Unique Prefix. Enter a unique prefix (1–3 alphanumeric characters) to associate with calls and parts orders created for this engineer when Generate Doc IDs on Client is Yes. The system uses this ID as a prefix for calls and parts orders, similar to the Engineer Unique ID. The prefix ensures that record values coming from many devices are unique when created in QAD ERP. This value displays in the mobile device on the Settings page on the Admin menu.

Site/Location. Optionally, enter the site and location from which this engineer normally obtains parts and supplies used in completing call activity. Site must be defined in Site Maintenance (1.1.13) and location defined in Location Maintenance (1.1.18). These fields default from the site and location associated with the engineer in Engineer Maintenance.

The list of inventory records available for usage or return in CAR and the Inventory List screen on the device are based on inventory detail records at the site and location. If site or location is blank, no inventory data displays on the engineer's mobile device for the activity recording screens.

Note The list of items that displays in the Call screen, Parts Order screen, and in the drop-down for the Item field in Call Activity on the mobile device is based on records from the QAD ERP item master, filtered by service group, not by site and location.

Start and End Service Group. Enter a range of service group values for limiting item data to be synchronized with the mobile device for this engineer. Associate service groups with items in Service Item Maintenance (11.3.7).

This field can be left blank. If specified, it is validated against values defined in Generalized Codes Maintenance for field pt_svc_group.

Only item master records with a non-blank service group that falls within the range defined by start and end service group are synchronized with the device. Use this to prevent overloading the storage space on the device.

The list of items that displays in the Call screen, Parts Order screen, and in the drop-down for the Item field in Call Activity on the mobile device is based on records from the QAD ERP item master, filtered by service group. The item lists that display in Call Activity for parts and returns and the Inventory List screen are based on inventory detail records at the engineer site and location.

Suppress QAD Mobile API Warnings in QAD ERP

You can specify in Service Management Control (11.24) in QAD ERP whether you want the system to suppress some less important QAD Mobile API warning messages returned by QAD ERP to QXtend and displayed in the QXtend Queue Manager. Suppressing these warnings may help you to identify more important warning messages.

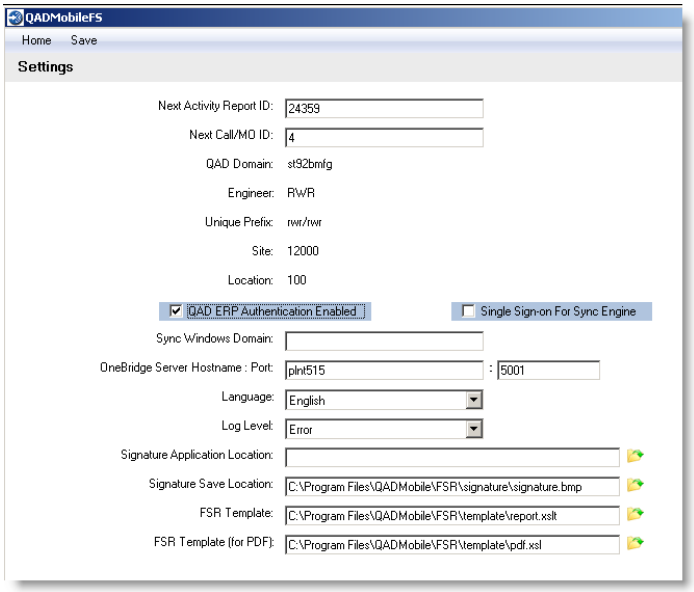
Set Suppress API Warnings to Yes to suppress QAD Mobile API warning messages that are considered not important.

Set Up Client Devices

QAD Mobile FS administration includes a page of control settings. You may need to define the Windows Domain setting before you can synchronize with the QAD ERP database. The other settings in the Admin page are populated after synchronization.

From the QAD Mobile FS main menu page, select Admin from the menu. A submenu displays. Select Settings. The Settings page displays.

Fig. 4.2
QAD Mobile FS Settings



Next Activity Report ID. Specify the value the device uses to create the numeric portion of the next activity report ID, combined with first portion of the string displayed for Unique Prefix (before the /). This value is incremented each time a CAR is created. In general, set this during implementation and leave it unchanged. It can be modified later if needed.

Next Call/MO ID. Specify the value the device uses to create the next call or parts order ID.

This value is incremented each time a call or parts order is created. Set this during implementation; if you reset it after this, you must specify a number greater than the last used value.

How call and parts order IDs are generated depends on the value of Generate Doc IDs on Client in QAD Mobile User Maintenance. If this is No, the number is preceded by three asterisks (***) and leading zeroes in the call or parts order ID fields to show that the value is temporary. If this is Yes, the Call/MO Unique Prefix is prefixed to the number. This value displays in the Unique Prefix field, after the /. See “Generate Doc IDs on Client” on page 36.

Next QDoc ID. Specify the value the device uses to create the next QDoc ID.

QDoc ID is a five-digit incremental number that identifies the QDoc. This value defaults to 00000 the first time you generate a QDoc on the client device and is not initialized after you recreate the client database. This ensures the uniqueness of all records imported from the client device.

Note If you specify an ID that results in a duplicate QDoc, the QDoc generated earlier will be overwritten.

QAD Domain. Displays the value of the QAD ERP Domain you synchronize data with as defined in QAD ERP QAD Mobile User Maintenance following the initial synchronization.

Engineer. Displays the value of the engineer defined in QAD ERP QAD Mobile User Maintenance following the initial synchronization.

Unique Prefix. Displays the value of the Engineer Unique ID field followed by the Call/MO Unique Prefix as defined in QAD Mobile User Maintenance.

- The system uses Engineer Unique ID when creating CAR IDs and for naming QDocs to ensure uniqueness of records from multiple devices.
- The system uses CALL/MO Unique Prefix for calls and parts orders when Generate Doc IDs on Client is Yes.

Site, Location. Displays the values defined in QAD Mobile User Maintenance following the initial synchronization.

Single Sign-On For Sync Engine. Indicate how you want the system to authenticate your user ID during the next synchronization. This field defaults from QAD ERP QAD Mobile User Maintenance. You can change it in the Admin change, but it will be reset to the QAD ERP default after the synchronization.

Sync Windows Domain. If your network uses domain names, specify the domain that identifies the administrative group that your device belongs to. Depending on your network administration, the domain name can also be defined on the server so that it is not needed on the client.

OneBridge Server Hostname: Port. Enter the host name and port of the OneBridge server.

Language. Specify the language used for the QAD Mobile FS client user interface.

Log Level. Choose whether to generate system logs and select from five log detail levels: all, debug, information, warning, and error.

Signature Application Location. Specify the full path to the program file that launches the digital signature application.

Signature Save Location. Specify the local folder and file name the digital signature on the field service report will be saved to.

FSR Template . Specify the template file to be used to generate the field service report in the mht format. The default is *QADMobileFSInstalldir**FSR*\template\report.xslt.

FSR Template for PDF. Specify the template file to be used to generate the field service report in the pdf format. The default is *QADMobileFSInstalldir**FSR*\template\pdf.xslt.

Perform Initial Full Sync

1. From the Start menu, choose Programs|QAD Mobile FS|QAD Mobile.
2. Perform an initial full sync to set up the client data. The initial sync creates the required database on the client device.
3. The system prompts for sync server credentials. Enter your user ID and password for authentication.
4. Enter your ERP authentication credentials. If you are not using ERP authentication, use the default values displayed.
5. The synchronization process begins. See “Synchronizing QAD Mobile FS” on page 49 for more information.

Re-creating the Device Database

The Admin menu provides an option to Create DB. This option should rarely if ever be needed. It is provided in the event that the client database is corrupted for some reason and needs to be re-created.

Warning This function completely overwrites the local QAD Mobile FS database.

To execute this function, follow these steps.

1. Select Create DB from the Admin menu.

   When you select the Create DB option, an informational message displays.

   ```
   Option should only be performed after first consulting with your system
   administrator. Some data will not be recoverable after resynchronizing with
   QAD ERP such as call activity reports
   ```

   Click Ok to continue.

2. A confirmation message displays.

   `Overwrite database` *`QADMobileFSInstalldir`*`\MFS\QADMobileFS.mdb?`

   Note On a PDA, the database extension is `.sdf`.

   Choose Yes.

   Note A warning prompt displays if you overwrite the database and have data on the device that has not been synchronized. You can choose to disregard this warning and continue to re-create the database.

Understanding Synchronized Data

Your QAD ERP database may include many records. Each engineer typically interacts with only a subset of the items, end users, and calls that exist in QAD ERP. QAD Mobile FS has been designed to enhance performance and streamline data entry by presenting only the information that the engineer needs to have on the device.

To accomplish this, records are synchronized to the device only when they meet certain criteria. Table 4.1 lists some data types that can be displayed in lookups and screens in QAD Mobile FS and the criteria used for selecting relevant records.

Note Because the records on the device are a subset of all records in QAD ERP, engineers may need to be able to enter items and end users that do not exist on their device. This is controlled by settings in QAD Mobile User Maintenance. See “Nonexisting End User” on page 35 and “Nonexisting Item” on page 35.

Table 4.1
Data Selected for Synchronization

Data Type	Records Selected
Item Master Records	Items on any call line in QAD ERP with the engineer's ID in the Assigned field Items on any material order in QAD ERP associated with one of the call lines selected by the previous criteria Items belonging to a service group within the range specified for the engineer in QAD Mobile User Maintenance Items on a call that has a visit assigned to the engineer. Items on an installed base record synchronized to the device
Inventory Detail	Records in the site and location specified for the engineer in QAD Mobile User Maintenance
End Users	End user records where the engineer is designated as Primary in End User Address Maintenance (11.9.1) (full sync only) End user records associated with a call line that the engineer is assigned to (quick sync and full sync) End user records associated with a visit that the engineer is assigned to (quick sync and full sync) End user records in which the engineer is secondary on the end user End user records where the end user's service area matches the engineer's service area
Installed Base Item Detail	Items and any associated installed base structure associated with any of the end users replicated to the device

Customize Field Service Reports

QAD Mobile FS lets you generate professional-looking field service reports from CAR data on your mobile devices. You can also customize the reports to meet your specific requirements.

Two files are provided as default field service report templates:

- *`QADMobileFSInstalldir`*`\FSR\template\report.xslt` for mht format reports, available on both laptops and PDAs
- *`QADMobileFSInstalldir`*`\FSR\template\pdf.xslt` for pdf format reports, only available on laptops

You can use the templates as provided or tailor them for your own needs. Any number of FSR templates can be added to the `C:\Program Files\QADMobile\FSR\default` directory on the sync server; the templates will be synchronized out to each MFS client to use. Engineers must choose which template to use by using Menu|Settings on the client.

Section 2

Using QAD Mobile FS

This section describes how to configure and use the QAD Mobile FS application.

Using QAD Mobile FS 45
Covers the use of QAD Mobile FS on field devices.

Chapter 5

Using QAD Mobile FS

This chapter covers the use of QAD Mobile FS on field devices:

Overview of QAD Mobile FS Use

The focal component of QAD Mobile FS is the device user interface. This chapter explains how to use the QAD Mobile FS product on a field device, and details the process flows that occur under each sequence of device interfaces.

There are six basic scenarios in using QAD Mobile FS:

- Synchronizing QAD Mobile FS
- Reviewing, creating, and updating calls
- Reporting call activity
- Ordering parts
- Viewing inventory and installed base items
- Administering QAD Mobile FS

The administration functions are discussed in “Set Up Client Devices” on page 38. This chapter discusses the functions that are used on a daily basis.

The information that displays on your device is affected by general settings and settings associated with your user ID in QAD Mobile User Maintenance (11.1.12) in QAD ERP. These settings affect the following aspects of a call:

- Whether you see status and work code details related to the call header or call lines
- Whether you can enter item and end user IDs that do not exist in the device database
- Whether temporary or permanent IDs are given to new calls and parts orders
- How various item lists on the device are generated

Features of the User Interface

The QAD Mobile FS user interface is designed to be easy to use and navigate. This section describes special features that make it easier to find and enter data.

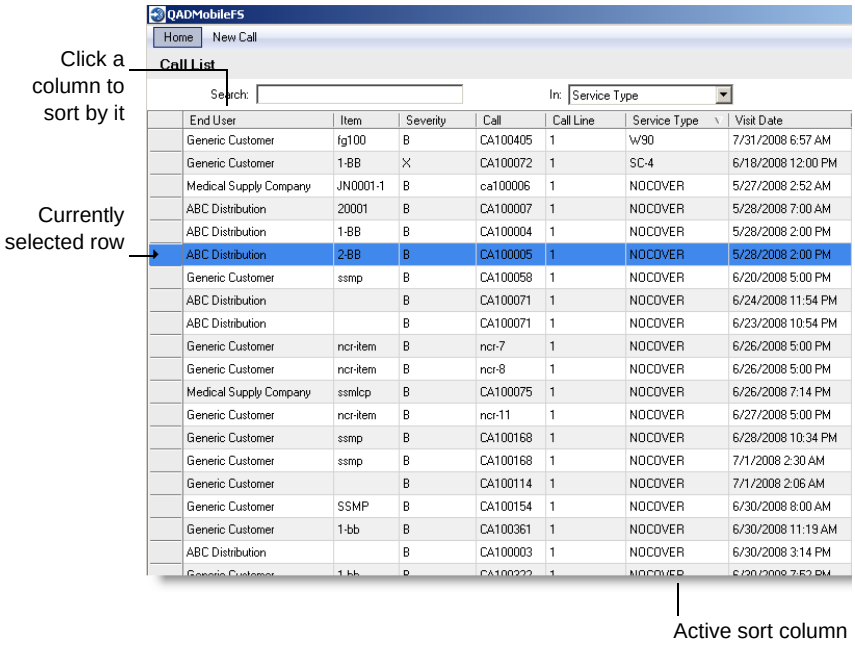
Working with Lists

Most screens in QAD Mobile FS provide lists for selecting records. The following lists share common features, described here.

- Call List
- Parts Order List
- Call Activity List
- Inventory List
- End User List
- Installed Base List
- End User Lookup
- Item Lookup
- Parts Grid in Call Activity
- Return Grid in Call Activity

Figure 5.1 illustrates a typical list.

Fig. 5.1
Using Lists



Sorting

Most lists have Search and In fields. The drop-down list associated with the field labeled In lets you select the column for data sorting. The first time you select a column heading, sort is in ascending order. Selecting the same heading again sorts in descending order.

You can also click in the header of any column to sort the rows based on the values of that column. The column displayed in the In field is updated to reflect the active sort.

Searching

Any text you enter in the Search field acts on the currently active sort column. Entering text in the Search field repositions the list at the record starting with that text value. The Arrow in the left column indicates the active row.

You can also search for records that contain a value by preceding the value with a wildcard (*). For example, entering *cr finds Monterey Credit Union and Creative Studios.

Resizing Columns

To resize a column, select the boundary on either side of the column heading and drag it until the column is the width you want.

Using Lookups

Some fields have a lookup icon. Clicking this icon displays a list with similar features to other lists. You can search and sort to find an appropriate record.

Adding and Deleting Records

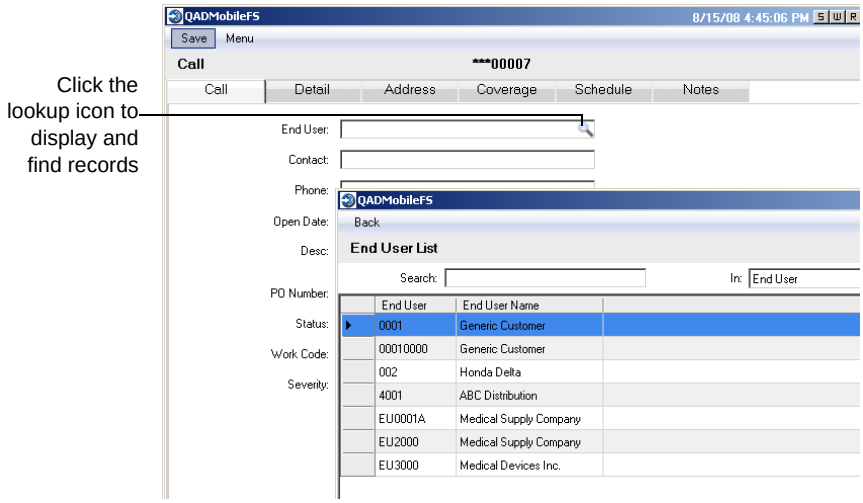
To add a new record in the Parts and Return grids in Call Activity:

- On the PDA, tap and hold the stylus anywhere in the grid and then choose Add from the shortcut menu.
- On the laptop, click the grid and then choose Add from the menu.

To delete an existing record in the Parts and Return grids in Call Activity:

- On the PDA, with the record selected, tap and hold the stylus on the left-most column of the record and then choose Delete from the shortcut menu.
- On the laptop, select the record and press the Delete key.

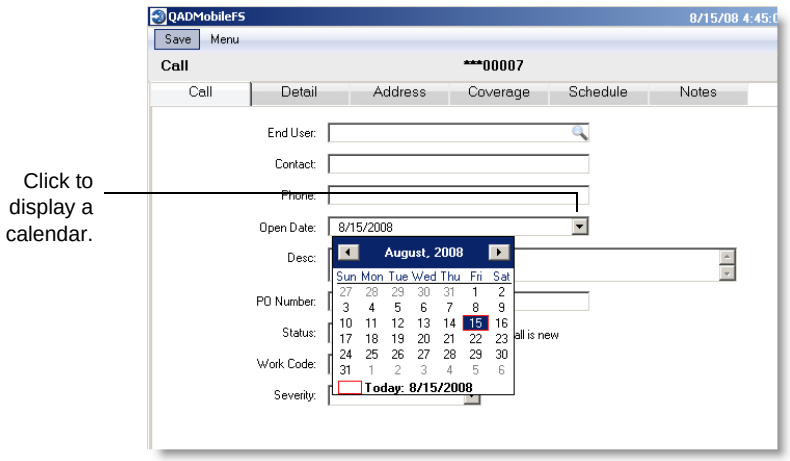
Fig. 5.2
Using Lookups



Working with Dates

Date fields include a drop-down list icon. Clicking the icon displays a calendar for selecting dates. You can also use the up and down arrows on the keyboard to increment the value in date fields.

Fig. 5.3
Using Calendars



Differences on Pocket PCs

This chapter illustrates using QAD Mobile FS on a laptop. When using a pocket PC, most of the functions are identical. However, a few variations exist because of limitations imposed by the smaller display area on the pocket device. The following list details these differences:

- Because of smaller display area on pocket PCs, Call Activity labor and expense screens have a different format. Instead of fields displayed in horizontal grids, fields are arranged in vertical columns with Add, Update, and Delete buttons. In some cases, fields such as description are not accessible from the PDA.
- QAD Mobile FS client is best used in 240 x 320 screen resolution on the PDA.
- QAD Mobile FS client supports both portrait and landscape displays on the PDA.

Synchronizing QAD Mobile FS

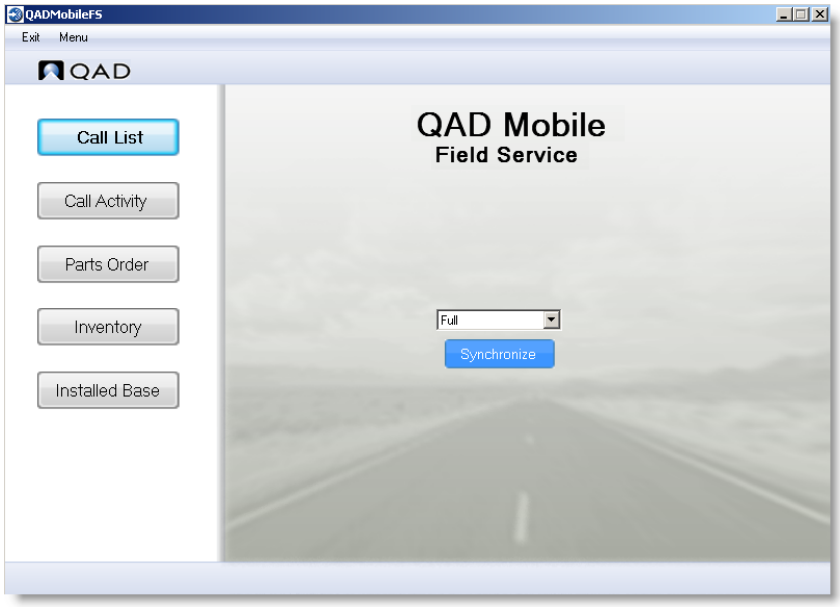
Synchronization is the process of transferring new and changed data from the field device to QAD ERP, and transferring new and changed data from QAD ERP to the field device.

Synchronization should be done before the field engineer schedules the next period of work. The process requires that the device have network, USB, or wireless access to the synchronization server.

Both full and partial synchronization are supported. During a full synchronization, all data required on the device is updated. The partial (quick) synchronization is based on change detection on the server side and only changed data since the last synchronization will be transferred to the client. After an initial full synchronization, you can use the quick sync on a regular basis to see the calls assigned to you and the status of items you have ordered. You may want to do a full sync over weekends.

Follow these steps to complete a synchronization:

1. On the device, click the QAD Mobile FS icon. The Main QAD Mobile FS menu displays.
2. Select Full or Quick from the drop-down list:
   - Full synchronization updates all data on the device.
   - Quick synchronization updates only the data changed since the last synchronization.
3. Click the Synchronize button to begin the process.



4 The server log-in screen displays. Enter your user ID and password; then click OK.

The user is authenticated on the server and the synchronization process starts. See “Synchronization Data Flow” on page 5 for more detail.

The process can take 1 to 5 minutes or more depending on the amount of data to transfer and the number of concurrent users on the synchronization server.

5 After synchronization is complete, a status screen displays indicating success or failure. If there are errors, click View Log to view the synchronization log.

Creating and Updating Calls

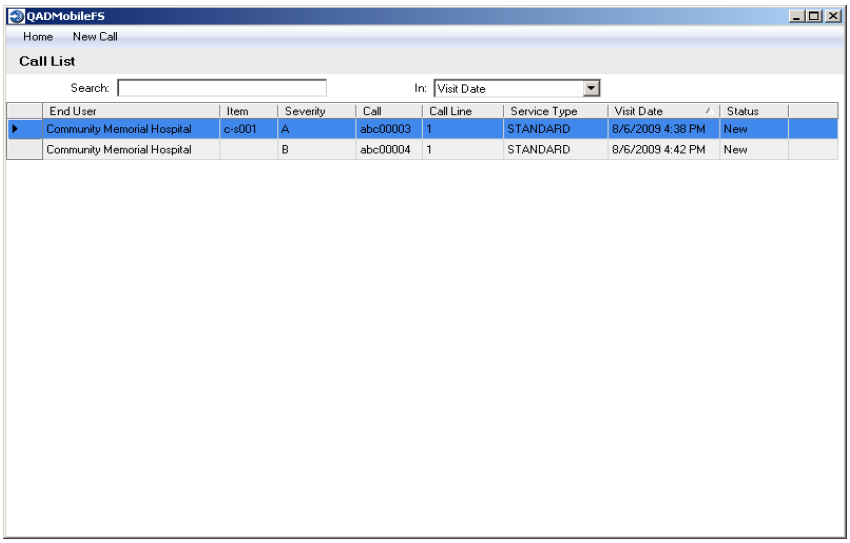
The outstanding call list lets field engineers review a list of scheduled call visits assigned to them and obtain detailed information about each line. This includes the end user address, service coverage detail, call information, item detail, and call comments (notes). Some data fields can be updated for an existing call; others are display only.

You can also create new calls on the device. When creating a new call, you can create only a single call line. This is unlike a call created in QAD ERP, which can include multiple call lines with different detail information.

When you synchronize call lines created on your field device and assigned to yourself to QAD ERP, visits are automatically created for these calls and assigned to you in SSM, regardless of whether Auto Create Visit is set to Yes or No in Engineer Scheduling Control in SSM.

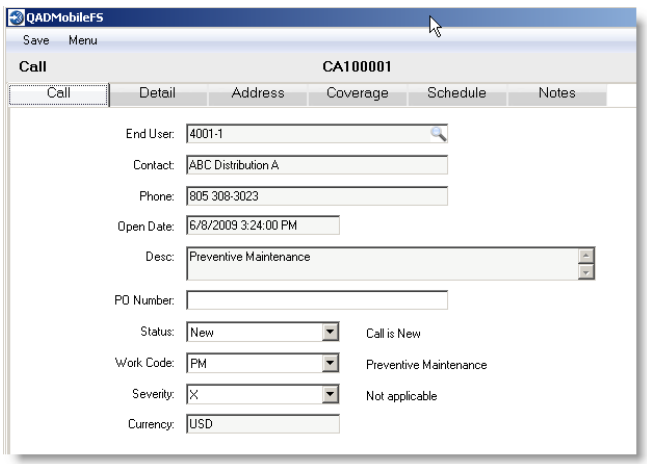
When calls are synchronized from QAD ERP onto the device, only call lines with visits scheduled and assigned to your engineer code display. Calls with the Closed, Complete, or Hold status are not synchronized.

1 From the QAD Mobile FS main menu, click Call List. The list of call visits assigned to the field engineer displays by call line in the upper frame.



2 Select a call line from the list to access the call line information or choose New Call from the menu to create a new single-line call. Detail tabs appear at the top of the screen. Which fields you can edit depend on whether you are creating a new call or editing an existing one. The following screen illustrates editing an existing call.

See “Reporting Call Activity” on page 56 for information on reporting call activity from this form.



When you create a new call, the system generates either a temporary or permanent ID based on the setting of Generate Doc IDs on Client in QAD Mobile User Maintenance.

- If this is No, the call is assigned a temporary number starting with three asterisks (***) and followed by the five-digit sequence specified in the Admin Settings field Next Call/MO ID. After a call has been synchronized, it receives a permanent ID from QAD ERP.

- If this is Yes, it is given a permanent ID prefixed with the value of Call/MO Unique Prefix defined in QAD Mobile User Maintenance in QAD ERP. See “Call/MO Unique Prefix” on page 37.

You can record activity for calls only when they have a permanent ID.

3 For a new call, update the following fields; they are display only for an existing call:

End User. Enter an end user ID or select an end user to associate with the call from the lookup. End users display sorted by name. Use the search and sort features to find the record you want.

Note If Nonexisting End User is Yes in QAD Mobile User Maintenance, the field is not validated; you can enter an ID that does not exist on your device. See “Nonexisting End User” on page 35.

Contact and Phone. Specify the individual at the end user address to contact regarding this call and a phone number where this individual can be reached.

Open Date. This defaults to the current system date, but you can modify it, for example, when you are recording a call taken on an earlier date. The system uses the call open date to determine valid coverage sources (warranty or contract), price lists, and service BOMs and routings. This field is required.

Desc. Enter a brief description of the call to display on reports and inquiries.

4 For a new or existing call, modify values for the following fields:

PO Number. This field is required if the end user associated with the call requires a PO number. If so, you must enter a valid customer PO number.

Status. Select a valid status code from the drop-down list. If you select a status that equates with cancel or hold in QAD ERP, this call is removed from the device during the next synchronization. You cannot change the status to the close or complete status. For a new call, status defaults to the call open status, as defined in QAD ERP in Call Management Control (11.1.24).

Note The setting of Prioritize Call Header on Client in QAD Mobile User Maintenance determines whether this field value reflects the call header or the call line.

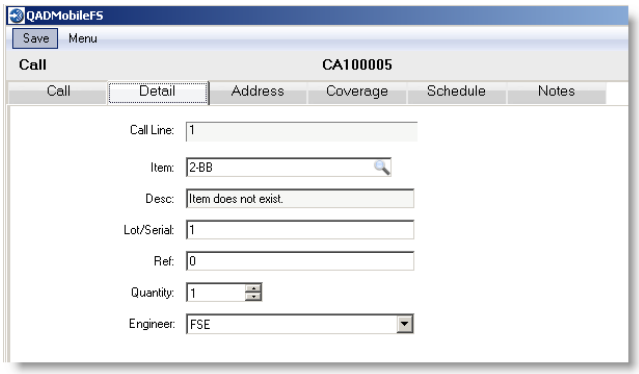
Note If the engineer is assigned to the call line, the status field can be updated. If the engineer is not on the call line, but only has a visit scheduled for the call, the status field cannot be updated.

Work Code. The work code records the type of work performed and how the work is billed. Select a valid work code from the list. Work Codes are defined in Work Code Maintenance (11.21.1).

Note The setting of Prioritize Call Header on Client in QAD Mobile User Maintenance determines whether this field value reflects the call header or the call line.

Severity. Select a valid severity code from the drop-down list. Severity codes are defined as generalized codes in Generalized Codes Maintenance (36.2.13) for field ca_severity.

5 Click the Detail tab to view call line information. Item and quantity can be modified only when a call activity report is not associated with the call line on the device and the call status is not hold or cancel.



Item. Enter an item number or select a valid item from the lookup.

The lookup lets you toggle between viewing items in the end user's installed base and item master records.

- If you display items, the lookup shows the item master records on your device. This is created when you sync the device based on information associated with your record in QAD Mobile User Maintenance (11.1.12).
- If you display installed base items, you initially see all the top-level items in the end user's installed base. If an item has been added to the installed base with a product structure, selecting it from the lookup displays all of the lower-level items in the structure. You can select either the parent item or a lower-level item for this call line detail.

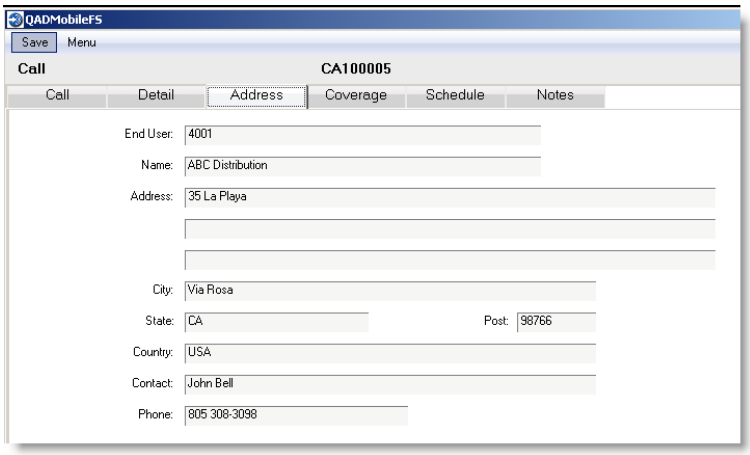
Note If Nonexisting Item is Yes in QAD Mobile User Maintenance, the field is not validated; you can also enter an item number that does not exist on your device.

6 Complete the call line detail by filling in the remaining fields.

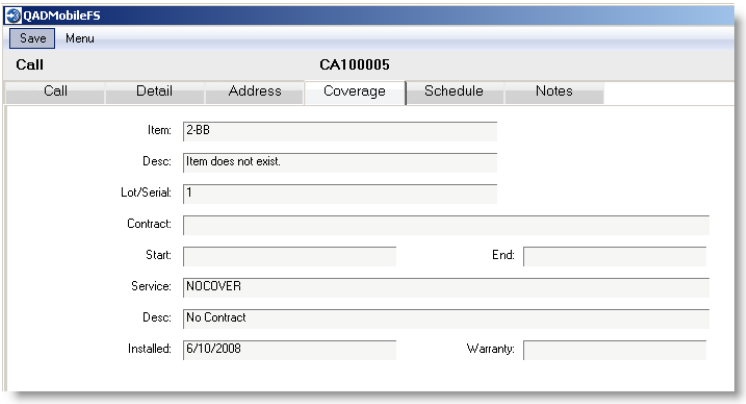
Quantity. Enter or scroll to the quantity required. For a serial-number controlled item, quantity must be 1.

Engineer. For existing and new calls, this field displays your field engineer code by default. If you change this value, both the call and its associated visit are reassigned during the next synchronization and deleted from your device.

7 Click the Address tab to view the end-user address information.



8 For existing calls, click the Coverage tab to review contract or warranty details.



For a new call, this tab is blank until after synchronization occurs.

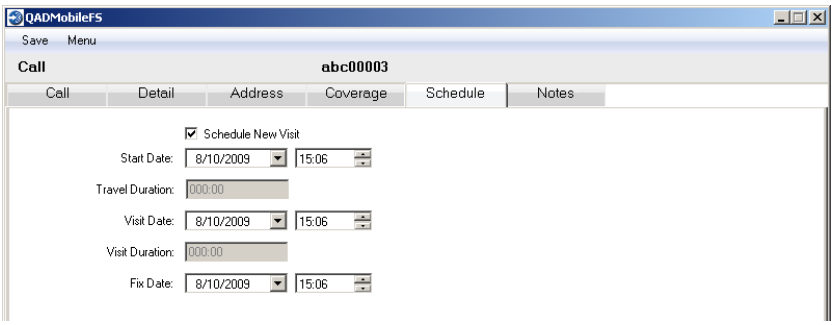
9 Click the Schedule tab to reschedule your visits.

If you reschedule your visits, changes will be synchronized back to SSM and update the visits data.

Note You can create a visit in several ways:

- Manually create a visit using Field Service Scheduler or Engineer Assignment Maintenance in SSM.
- With Auto Create Visit set to Yes in Engineer Scheduling Control, create a visit using Call Maintenance in SSM. A visit is automatically scheduled for that call.
- Create a call on your field device. When it is synchronized to QAD ERP, a visit is automatically created for that call regardless of whether Auto Create Visit is set to Yes or No in Engineer Scheduling Control.

Note This function is not intended as a way for you to record actual time spent on a call. It is a planning function that creates records used by engineer scheduling to determine who is the best candidate for taking a call on a particular day and time in the future.



Schedule New Visit. This option is displayed when no visit is available for the current call assigned to you. By default, this option is not selected and all the other fields under the Schedule tab are disabled. Select this option to enable the scheduling fields to create a new visit for the call.

Start Date. Specify when you are scheduled to set out for the customer's location. For a new record, this defaults to the current date. For synchronized data, this value is calculated as visit date less travel duration.

Note This field only displays on the client for reference and is not synchronized with any corresponding data in SSM.

Start Time. Specify the time of day you are scheduled to set out for the customer's site. For a new record, this defaults to the current system time. For synchronized data, this value is calculated as visit time less travel duration.

Note This field only displays on the client for reference and is not synchronized with any corresponding data in SSM.

Travel Duration. Displays the amount of time it takes for an engineer to travel from the service center to this end user location. (Read-only.)

Visit Date. Specify the time of day that you are scheduled to begin work on this call. For a new record, this defaults to the current date. For existing data, this value is synchronized with visit start date or next call status date in SSM.

Visit Time. Specify the hour of day that you are scheduled to begin work on this call. For a new record, this defaults to the current system time. For existing data, this value is synchronized with visit start time or next call status date in SSM.

Visit Duration. Displays the estimated number of hours to be spent on this call transaction. (Read-only.)

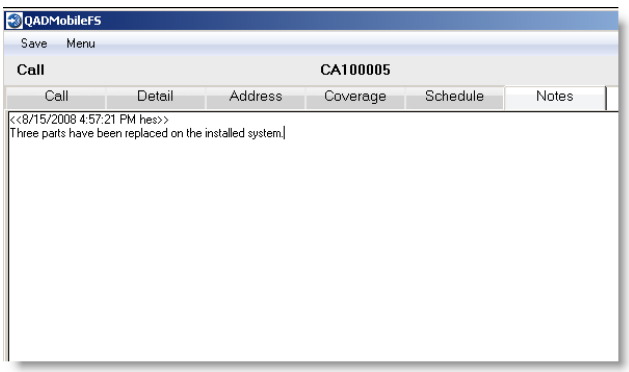
Fix Date. Specify when you are scheduled to solve the call problem. For a new record, this defaults to the current date. For synchronized data, this value is calculated as visit date plus visit duration.

Note This field only displays on the client for reference and is not synchronized with any corresponding data in SSM.

Fix Time. Specify the hour of day you are scheduled to solve the call problem. For a new record, this defaults to the current system time. For synchronized data, this value is calculated as visit time plus visit duration.

Note This field only displays on the client for reference and is not synchronized with any corresponding data in SSM.

10 Click the Notes tab to enter new comments or review existing comments for this call. You cannot modify comments that have been synchronized.



- For unsynchronized calls, enter new comments as needed.
- For synchronized calls, any existing comments display. Click the Update button to add new comments. After you save the comments, they can no longer be modified.

Any new comments are added as a new page in QAD ERP when the call is synchronized.

Note When you click Update, its label changes to Show All. After entering your comments, click Show All to view any pre-existing comments in addition to any comments you just entered.

If you are creating a new call, the system automatically adds a comment indicating that the call was generated from QAD Mobile FS and places it at the beginning of other comments or on its own page depending on the setting of Print System Comments on Invoices/Reports in QAD Mobile User Maintenance.

11 Choose Save to save and exit the call line. You return to the call list.

12 To cancel call updates or to delete a call, choose the Edit menu from any call screen. Choose Cancel to cancel or Delete to delete the call. Only unsynchronized calls can be deleted. You can cancel updates to both synchronized and unsynchronized calls.

Note You can also cancel by clicking on the window close button and responding Yes when prompted to cancel changes.

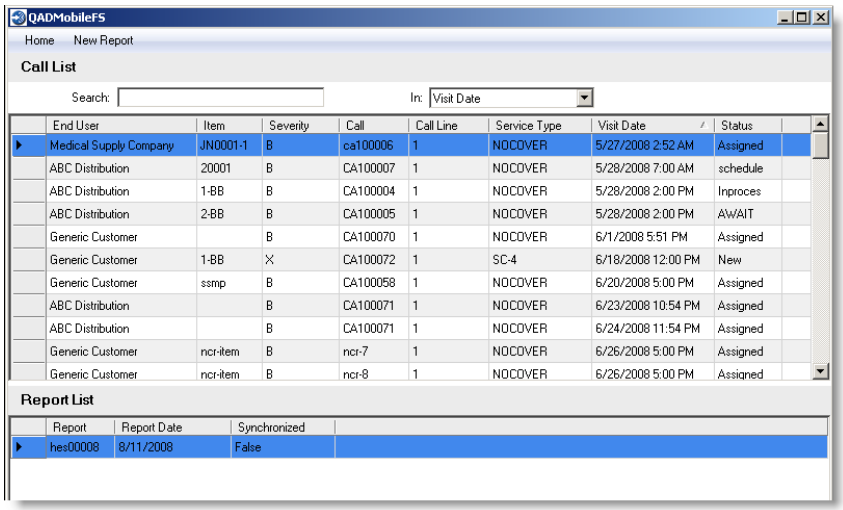
Reporting Call Activity

You can access call reporting from the main menu by clicking Call Activity and selecting a call visit line to report against. You can also choose Call Activity from the GoTo menu in the call maintenance screens. The following instructions assume that you started from the main menu, which displays all calls. The GoTo option displays only the current call line, but uses the same screens for modifications.

Note Synchronized call activity reports (CARs) are view-only: no changes are allowed.

1 From the QAD Mobile FS main menu, click Call Activity. At the top of the pane, a list of call lines currently assigned to you displays.

2 Select a call line from the Call List. If any activity reports exist for the line, they display in the lower Report List.

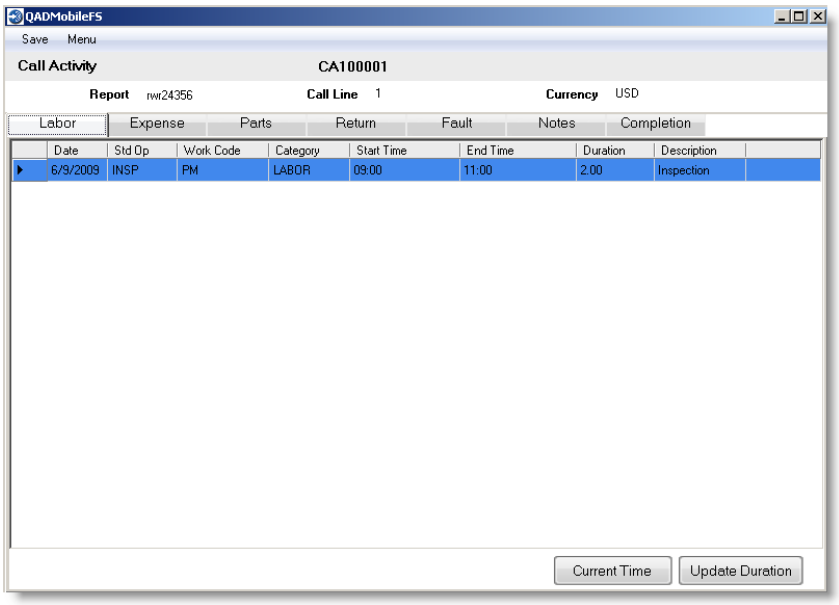


Call activity cannot be reported against calls with a cancel or hold status. It is also not allowed if the call's end user requires a purchase order number and none has been specified.

You can only report activity for new, unsynchronized calls created on the device when Generate Doc IDs on Client is Yes in QAD Mobile User Maintenance.

The report number is generated from the Next Activity Report ID field, defined in the Settings form on the Admin menu combined with the Engineer Unique ID value defined in QAD Mobile User Maintenance in QAD ERP.

3 Select a call line and then either select an existing call report from the list to edit or choose Call Activity Report from the New menu to create a new report. The Labor tab displays.



Date. This field defaults to the system date; change it to the correct date when the labor activity occurred if necessary. Click the drop-down to display a calendar for selecting dates.

Std Op. Optionally specify a standard operation code defined with Service Std Operation Maint (11.19.21) in QAD ERP. If specified, the system displays the associated service category and description.

After you record a line, you can change the operation only by deleting the line and reentering it.

Work Code. This field defaults from the selected call line; you can change it if needed. Work code affects coverage and pricing.

Category. Select a labor service category from the drop-down list. For standard operations and operations in service routings, the service category defaults from the operation.

Start Time and End Time. Specify the time of day you began and finished the work. These values default to 12 AM. Click Current Time to update a field with the current time.

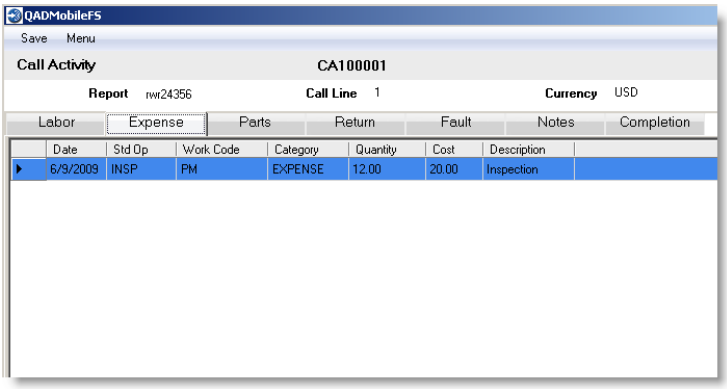
Duration. Manually enter the number of hours worked or click Update Duration to populate this field based on the start and end times entered.

Description. Specify a brief description of this operation to print on the customer invoice. Description defaults from a standard operation if specified.

Select the Start Time or End Time field you want to edit and then click the Current Time button to insert the current system time.

Click the Update Duration button to automatically update the duration field for the record you are editing by calculating the time difference between start time and end time.

4 Click Expense to enter expenses for the call.

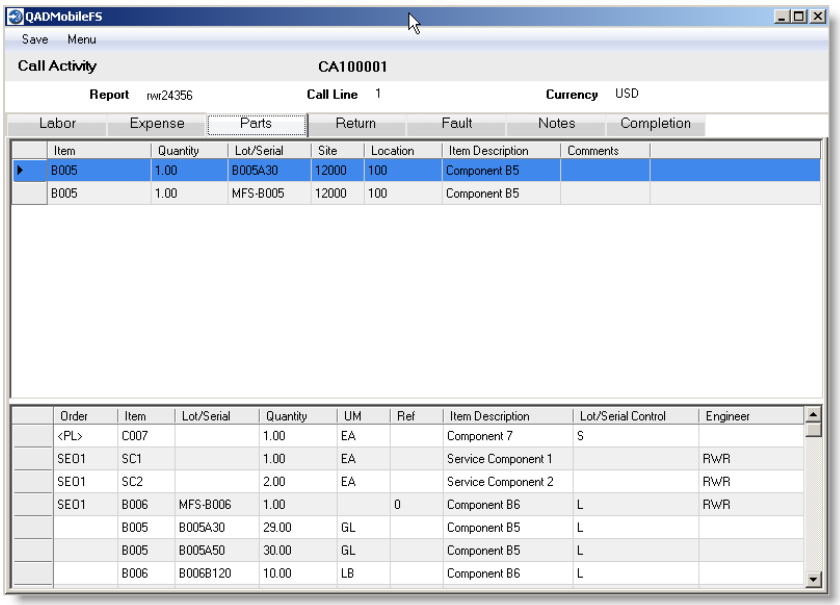


The Expense tab is similar to the Labor tab and the fields are the same, except that for expenses you enter a quantity and cost.

Quantity. Enter the number of units of the service category that you used. This defaults from the standard operation, if one is specified.

Cost. Specify the cost of 1 unit of the service category.

5 Click the Parts tab to enter the items used for this call line.



The bottom grid displays:

- Inventory detail records for items found in the site and location associated with your record in QAD Mobile User Maintenance
- Inventory detail for items ordered on parts orders for the call line. Items from parts orders display a value in the Order column.

- Inventory detail for parts defined for this call maintained in Parts List Maintenance, indicated by <PL> in the Order column.

When you select a row in the bottom grid, it is added to the top grid with a quantity of 0, unless only a single item exists; then quantity defaults to 1. You can then edit quantity, site, and location in the upper grid. Quantity can be greater than the quantity available.

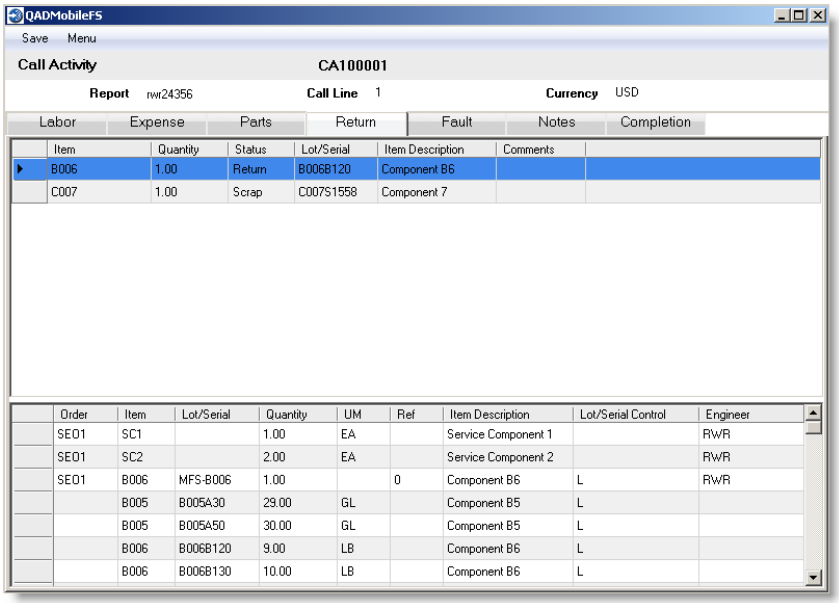
Note When you add an MO item to the parts order list, the system displays a warning if the engineer code associated with the MO item does not match your own engineer code. The usage site and location of an MO item default from the MO ship-to site and location.

You can also click the Item field in the upper grid on the blank line to open a drop-down list of all item master records on your device. Select an item and then update quantity, lot/serial, site, and location.

Note If Nonexisting Item is Yes in QAD Mobile User Maintenance, the field is not validated; you can also enter an item number that does not exist on your device.

You can enter up to 32 characters of comments on an item. The comments will be appended to the CAR notes under the Notes tab, which will be added to the call comments when the report is synchronized to the server.

6 Click the Return tab to enter information on returned items.



The bottom grid displays items that are available to be returned for this call, including:

- Inventory detail records found in the site and location associated with your record in QAD Mobile User Maintenance.
- Items ordered on parts orders for the call line. Items from parts orders display a value in the Order column
- Items in the end-user's installed base. These display with <ISB> in the Order column.

When you select a row in the bottom grid, it is added to the top grid with a quantity of 0, unless only a single item exists; then quantity defaults to 1. You can then edit quantity, site, and location in the upper grid. Quantity must be a positive, numeric value and can be greater than the quantity available.

Note When you add an MO item to the returned items list, the system displays a warning if the engineer code associated with the MO item does not match your own engineer code. The return site and location of an MO item are determined based on its return status.

You can also click the Item field in the upper grid on the blank line to open a drop-down list of all item master records on your device. Select an item and then update quantity, status, lot/serial, and reference.

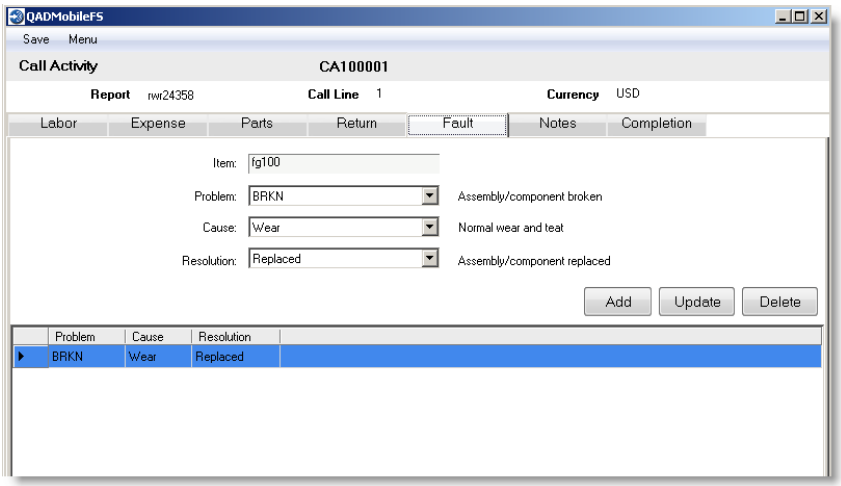
The return status is a required field, and there are a couple of rules to follow when you specify its value:

- You can use pending returns only for items on an MO. If you select the pending status for a non-MO item, a warning message will be displayed.
- Whether an item is repairable is defined in the QAD ERP item master and can be viewed from the Item List on the QAD Mobile FS client.

  If you previously entered a repairable item in Parts, a return is automatically created with the same quantity and the default return status defined in SSM Control. If the item is lot-controlled, the same lot number is also used on the return.

You can enter up to 32 characters of comments on an item. The comments will be appended to the CAR notes under the Notes tab, which will be added to the call comments when the report is synchronized to the server.

7 Click the Fault tab to enter codes reflecting the specific failure and resolution for the item on the call line.

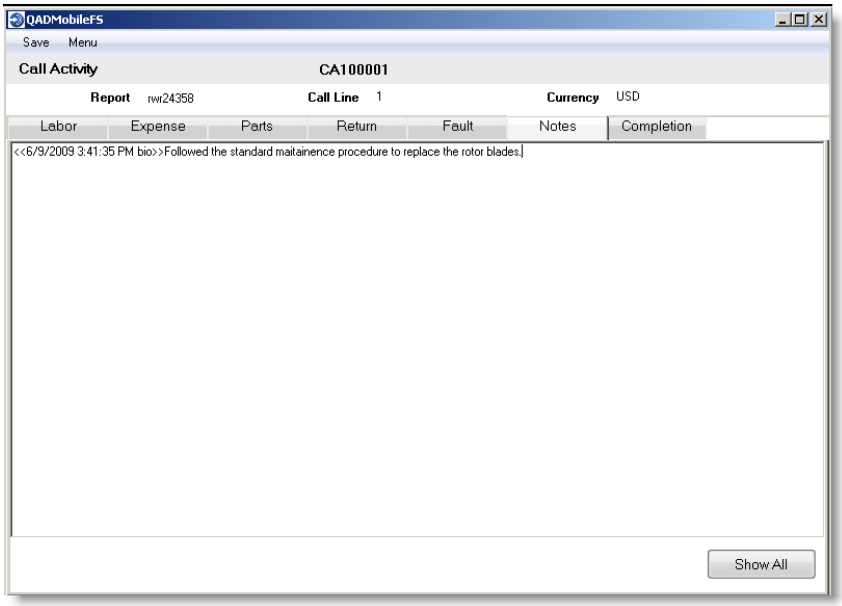


The item associated with the call line displays and cannot be edited. Select the Problem, Cause, and Resolution codes from the lists. This enables the Add button.

Click Add to add the fault codes to the item, as shown in the screen example. You can add multiple sets of fault codes for an item.

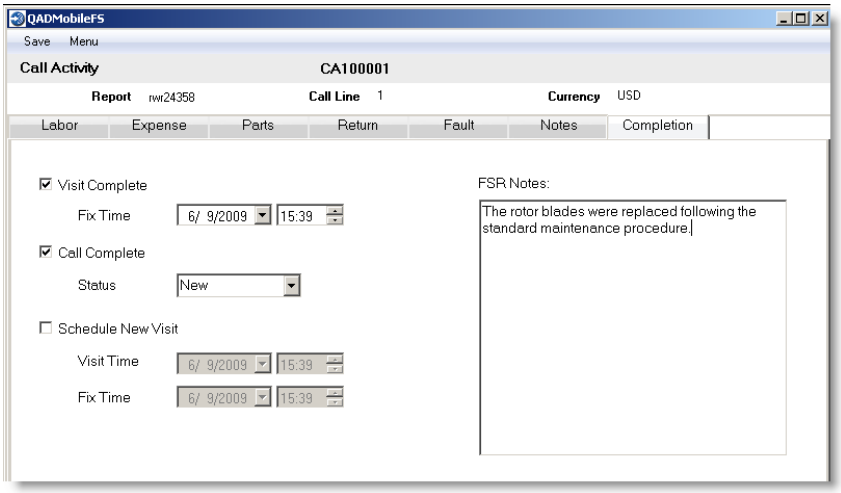
To modify or remove a set of fault codes, select a row in the lower grid and click Update or Delete.

8 Click the Notes tab to enter comments for the call.



These update the same comment records that are updated in the Call screen.

9 Click the Completion tab to close the visit and complete the call.



Visit Complete. Select this option to enable the Fix Time field for recording fix date and time and to close the current visit. The current call line will be closed and will be removed from your device after the next synchronization. If you clear this option, the report will not be synchronized and will remain on the client device.

Fix Date and Time. Enter the actual date and time when the call problem was solved. This field is only enabled when the Visit Complete option is selected.

Call Complete. Select this option to have the system try to complete the call line and the call.

Status. Specify the status to update the call line and the call to in either one of the following situations:

- The Call Complete option is not selected.

- The Call Complete option is selected but the system fails to complete the call line.

Schedule New Visit. Select this option to create a new visit. This option gives you flexibility when you want to close the current visit to the customer and complete the CAR, but still want to schedule another time to visit the customer.

Visit Time. Specify the date and time of your next visit. This field is only enabled when the Schedule New Visit option is selected.

Fix Time. Specify when you expect to close the next visit. This field is only enabled when the Schedule New Visit option is selected.

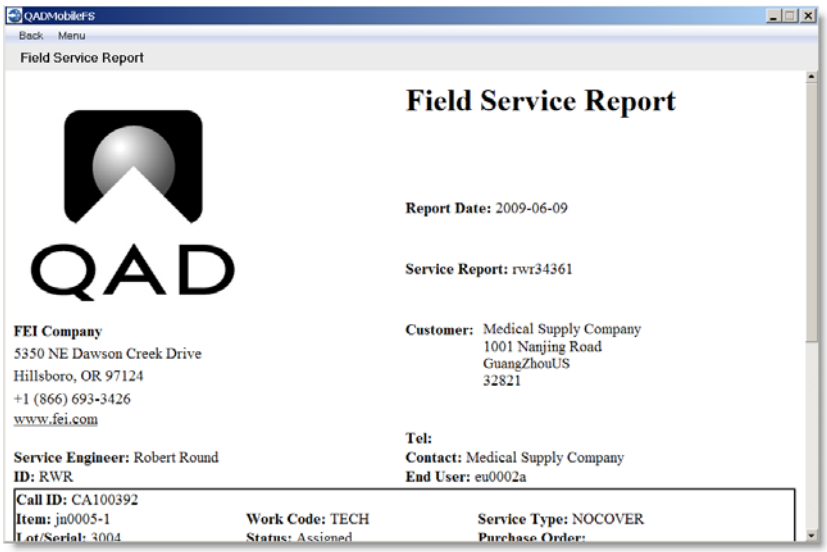
FSR Notes. Enter additional notes on the service performed. This information will be displayed on the FSR.

10 Choose Save to save and exit the CAR and return to the call list.

If you selected the Visit Complete option under the Completion tab, the Field Service Report will be generated and the call line status in the report will be set to complete. However, setting the call line status to complete on the client does not automatically do the same to the call line on the server. Several scenarios may occur after synchronization:

- If Process Call Reports is set to Yes in QAD Mobile User Maintenance in SSM, SSM will automatically process the call line. If all the call line data is successfully processed, the call line status will be set to complete. If this is the case, all other visits originally scheduled for this call, if any, will be cancelled and removed from your client device.
- If Process Call Reports is set to No in QAD Mobile User Maintenance in SSM, or if auto-processing is not successful, the call line will remain in its original status until it is manually processed on the server side. If this is the case, other visits scheduled for this call, if any, will still be synchronized to your client device.

Note You can always access the CAR and choose Generate FSR from the menu to generate the report.



- To collect the customer’s digital signature on the report as acknowledgement of the service received, choose Signature from the menu. In the Signature window, have the customer sign using a digital signature device; then click Save. The signature displays at the bottom of the field service report.

- To save the report as a pdf or mht file, choose Save as from the menu and then provide a file and choose a file format.
- To send out the report through e-mail, choose Mail from the menu. You are then prompted to save the report as a `.pdf` or `.mht` file, after which the default e-mail program on your system automatically launches and a new mail is created with the saved report as an attachment.
- Saved field service reports can be synchronized to SSM as call attachments and maintained in Attachment Maintenance.

  Once a field service report is synchronized to the server, it can no longer be edited or synchronized again on the client. You can select View FSR from the menu to view the report or select Generate FSR to regenerate the report.

11 To cancel CAR updates or to delete a CAR, choose the Edit menu from any CAR screen. Choose Cancel to cancel or Delete to delete the activity report.

Note You can also cancel by clicking on the window close button and responding Yes when prompted to cancel changes.

Ordering Parts

Parts can be ordered to complete activity for an SSM call. You can also order parts without referencing a call to replenish your general service inventory.

Note You can order parts only for calls that have been synchronized with QAD ERP. A call created on the device and not yet synchronized is not available for selection.

When you create a new parts order, the system generates either a temporary or permanent ID based on the setting of Generate Doc IDs on Client in QAD Mobile User Maintenance.

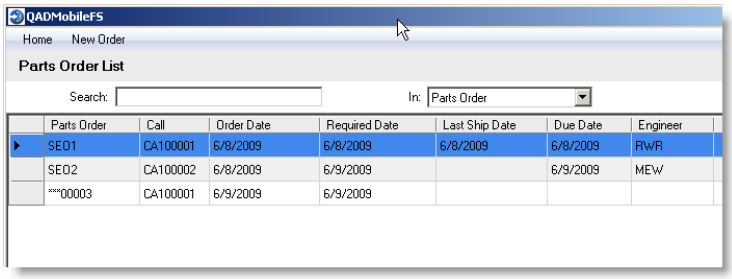
- If this is No, the parts order is assigned a temporary number starting with three asterisks (***) and followed by the five-digit sequence specified in the Admin Settings field Next Call/MO ID. After an order has been synchronized, it receives a permanent ID from QAD ERP.
- If this is Yes, it is given a permanent ID prefixed with the value of Call/MO Unique Prefix defined in QAD Mobile User Maintenance in QAD ERP.

Parts orders can also be created on the QAD ERP server; these are received on the device with permanent IDs. After a parts order is synchronized, you can no longer update the order data.

If Nonexisting Item is Yes in QAD Mobile User Maintenance, you can order any item. Otherwise, items ordered on the device must exist in the device database. These items are synchronized from the QAD ERP item master based on the range of service groups associated with your record in QAD Mobile User Maintenance.

For items not associated with calls, the delivery must be to the engineer. Items associated with calls can be delivered to the end user or the engineer.

1 From the QAD Mobile FS main menu, click Parts Order. The list of existing orders displays.

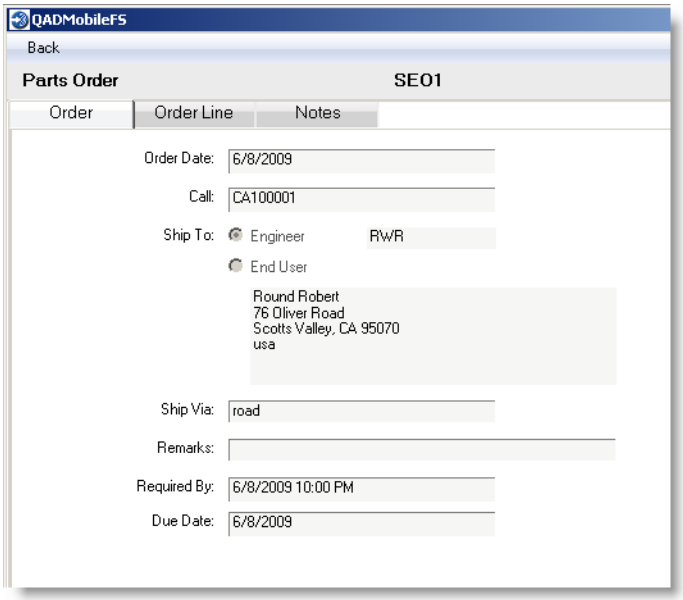


Three types of orders may appear:

- Orders entered in or synchronized from QAD ERP. The parts order has been confirmed; the order ID is permanent, as indicated by the order prefix, such as MO038789. You cannot update data on these orders.
- Device orders for confirmed calls.
- Device orders for items not associated with a call.

2 Click an existing order to view or update it. To create a new order, choose New from the menu. The order header displays.

3 The parts order screen displays. Detail tabs appear at the top of the screen.



Order Date. Enter the date this order was created. This defaults to today's date. Click the drop-down arrow to display a calendar for selecting dates.

Call. Optional. Open the list to select from available calls.

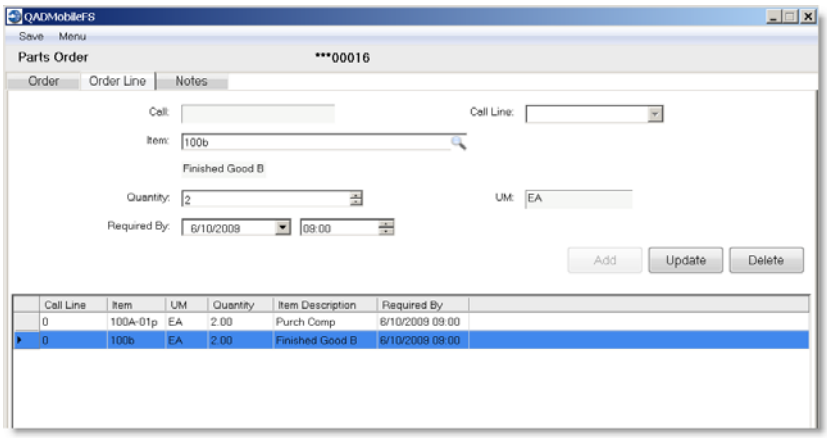
Ship-To. Select the ship-to location, either End User or Engineer. End User is not available for orders without a call.

Ship Via. Select the shipping method from the drop-down list.

Remarks. Optionally, type some remarks for the order.

Required By. Enter the date and time by which the item is needed. The default date is the current date; the default time is 09:00. Click the date field drop-down arrow to display a calendar for selecting dates. The values specified here default to order line required dates and time.

4 Click the Order Line tab to enter item detail.



Call Line. If this order is related to a call, specify the line on the call for which this item is required. When only one line exists on the call, the line number defaults; otherwise, you must select the line from the drop-down list. A parts order must contain at least one order line.

Item. Select the item you want to order from the lookup, which displays all item master records on your device.

Note If Nonexisting Item is Yes in QAD Mobile User Maintenance, you can order any item, regardless of whether it exists in the device database.

Quantity. Specify how many of the item you need.

Required By. Enter the date and time by which the item is needed. These values default from the required date and time specified for the order. Click the date field drop-down arrow to display a calendar for selecting dates.

Click Add to add the item to the order. To modify an item or delete an item from the order, select the item from the order list and choose Update or Delete.

Important The lines on the order are not saved until you choose Save.

5 Click the Notes tab to enter comments on the order.

6 Choose Save to save the parts order and exit to the order list.

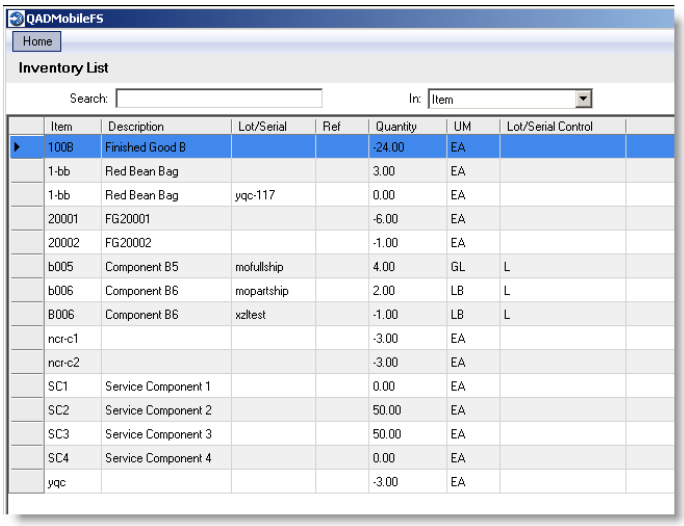
7 To delete a device parts order, return to the parts order list, select the order, and choose Edit| Delete from the menu. You are asked to confirm the delete. The order, all order lines, and any order comments are deleted.

You cannot delete an order that has been synchronized.

Viewing Inventory

Each device contains an item inventory from QAD ERP in the local database. The records that you view in this screen are synchronized from QAD ERP based on the inventory detail associated with the site and location specified for your user record in QAD Mobile User Maintenance.

1 From the QAD Mobile FS main menu, click Inventory. The list of items displays.

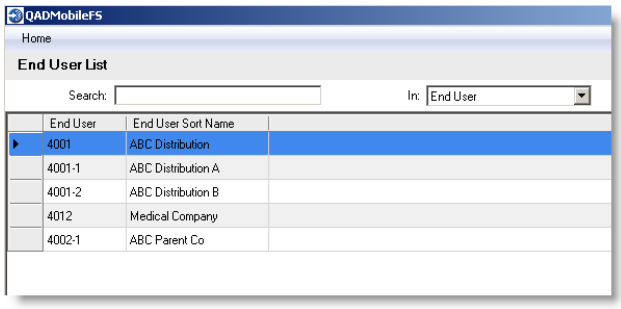


Scroll across to view item detail. Scroll down to view additional items.

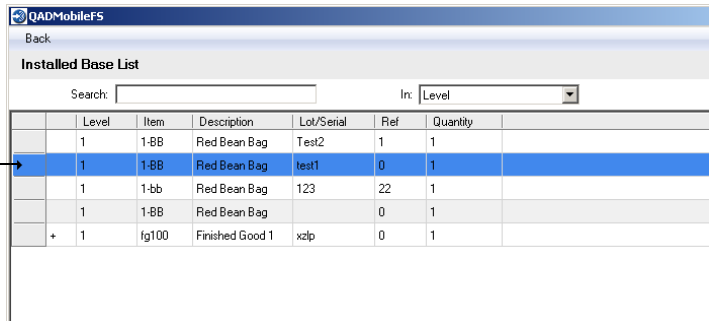
Viewing Installed Base Details

You can use QAD Mobile FS to view the items that have been purchased or installed by the end users you service. If the end item sold to the user was added to the end user's installed base with subcomponents, you can view this configuration detail also.

1 From the QAD Mobile FS main menu, click Installed Base. The list of end users displays.



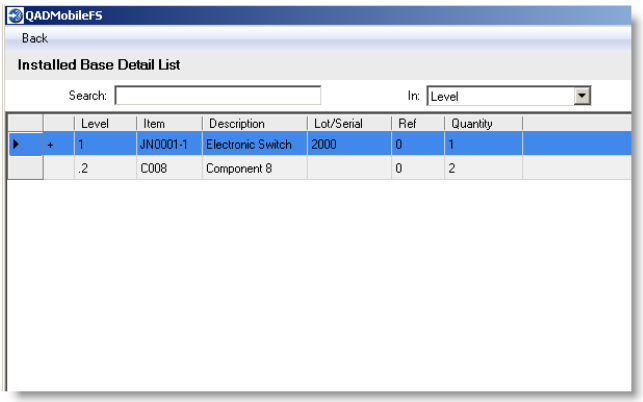
2 Select an end user to display the associated items.



The level column indicates the level in the installed base product structure that you are viewing. Level 1 items are top-level or parent items.

If an item has components in the installed base, selecting it displays details about them.

3 Click an item with subcomponents to display its details.



Level 2 items are immediately below the parent.

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