

6.0 Standalone Installation of FEMIS v1.5

The following section contains instructions on the installation of a standalone Oracle database and the configuration of the FEMIS v1.5 application on the standalone system. Items that will be required to complete this installation are as follows:

- Oracle8i Server for Windows 2000 v8.1.6 or Personal Oracle8i v8.1.6.
- Exports generated by a FEMIS database
- FEMIS server for installation of Software
- FEMIS v1.5 COTS CD

6.1 Disk Space Required

The standalone requires that Oracle8i v8.1.6 database software be installed on the PC. The amount of disk space required for a minimal installation of these products is

- ~586 MB for Oracle8i or Personal Oracle8i
- ~500 MB-900 MB for FEMIS data files.

6.2 Standalone PC Installation Process

The following sections provide instructions for installing the Oracle database and configuring the FEMIS v1.5 application.

6.2.1 Removing Existing Standalone Database

If you have an existing Oracle7 database installed on the PC (FEMIS v1.4.6), complete the following steps. An existing Oracle8i v8.1.6 database (FEMIS v1.4.7.2) does not need to be removed.

1. Remove the existing Oracle instance by running the Instance Manager `ORACLE_HOME\bin\oradim73.exe`. Select the instance, and click `Delete`.
2. Uninstall all Oracle 7 Software using the Oracle Installer.
3. Delete all shortcuts from the startup folders. The All User Startup folder is located in `%WINDIR%\PROFILES\ALL USERS\START MENU\PROGRAMS`.

6.2.2 Installing PC COTS and FEMIS v1.5

Follow the instructions in Section 4.0, FEMIS PC Installation, to install the FEMIS v1.5 COTS and the FEMIS application if you have not already done so. Be sure to select the `standalone` option

(not Standalone Watchful Eye) when installing FEMIS. If you failed to select the Standalone option when installing FEMIS and the COTS applications do the following:

1. Map your I:\ drive to \\<femis server>\femis.
2. Run the I:\PC\SETUP\SETUP.EXE
3. Select the Modify option in the Program Maintenance window.
4. Select the Standalone option to be installed to your local hard drive on the Custom Setup window.
5. Select Next in the Select GIS and Location window, and click Install to begin the installation.

6.2.3 Installing Oracle8i Server or Personal Oracle8i

If you have an Existing Personal Oracle or Oracle Sever 8.1.6 installed for an existing FEMIS v1.4.7.2 standalone database, skip this section.

1. Rename or move the files sqlnet.ora and tnsnames.ora located in the <Oracle Home>\network\ADMIN directory, (usually C:\Oracle\Ora81\network\ADMIN).
2. Insert the Oracle installation CD into the CD drive.
3. Select Install/Deinstall Products in the window that appears.

Note: If window does not start automatically upon inserting the CD, click Start → Run, and enter <CD DRIVE>:\SETUP.EXE.

4. Click Next in the Oracle Universal Installer – Welcome window.
5. Verify the destination Name and Path of the Oracle Home directory (typically C:\ORACLE\ORA81), and click Next.

Note: You should install Oracle to the same Oracle Home Name and Path as the Net8 Client was installed during the COTS installation.

6. Select Oracle8i or Personal Oracle8i, and click Next.
7. Select Minimal Installation Type, and click Next.
8. Select No in the Select Starter Database window, and click Next.

9. Click `Install` in the Summary window.

Note: You may receive the message – Error in writing to file
`C:\winnt\system32\<filename>.dll` – when the install is copying files to the PC. Browse to the location of the file, right click on the file, and select properties. Uncheck the `Read-only` box, and click `OK`. Then return to the message, and click `Retry`.

10. Click `Cancel` in the Net8 Configuration Assistant Welcome window that displays after the installation is complete.
11. Click `OK` in the Error window that follows.
12. Click `Next` in the Configuration Tools window.
13. Click `Exit` in the End of Installation window.

6.2.4 Installing Oracle8i Patch Set 8.1.6.3

Before you can install the Oracle8i patch set 8.1.6.3, Oracle8i Server or Personal Oracle 8.1.6 must be installed.

1. Insert the FEMIS v1.5 COTS CD.
2. Click `Start` → `Programs` → `Oracle Installation Products` → `Universal Installer`.
3. Click `Next` on the Welcome window.
4. Browse to `<COTS drive>:\Oracle 8163 Patch\Disk1\stage\products.jar` for the Source... Path. Click `Next`.
5. Click `Install` on the Summary window.
6. Click `Exit` on the End of Installation window.

6.2.5 Configuring Oracle Network Components

Before the database instance can be installed, the Net8 components and Listener need to be configured. Complete the following steps to configure these. If you are upgrading a FEMIS v1.4.7.2 database, skip this section.

1. Click `Start` → `Programs` → `Oracle Oracle-OraHome81` → `Network Administration` → `Net8 Assistant`.

2. Go to `Net8 Configuration` → `Local`, and select `Profile`.
3. Go to the `Naming` section, and select the `Methods` tab. Use only `TNSNAMES` as Selected `Methods`. To add or remove selected items, use the `<` and `>` buttons.
4. Click the `Oracle Names` tab, and enter `World` as `Default Domain`.
5. Click `File` on the menu bar, and select `Save Network Configuration`.
6. Click on `File`, and select `Exit`.
7. Click `Start` → `Programs` → `Oracle Oracle-OraHome81` → `Network Administration` → `Net8 Configuration Assistant`.
8. Select `Listener Configuration` in the `Net8 Configuration Assistant: Welcome` window, and click `Next`.
9. Select `Add`, and click `Next`.
10. Use the default `Listener` name, `LISTENER`, and click `Next`.
11. Verify `TCP` is the only item in the `Selected Protocols` field on the `Select Protocols` window. Use the `<` and `>` buttons to add or remove `Selected Protocols`. Click `Next`.
12. Use the standard port number of `1521` for the `TCP/IP` port number. Click `Next`.
13. Select `No` for `Would you like to configure another listener?` Click `Next`.
14. Click `Next` for `Listener configuration complete!`

You will be returned to the `Net8 Configuration Assistant: Welcome` window.

15. Click `Finish`.

6.2.6 Enabling NT Authentication

1. Use a text file editor (like `WordPad`) to edit the `Oracle home/network/ADMIN/sqlnet.ora` file.
2. Add the following parameter: `SQLNET.AUTHENTICATION_SERVICES = (NTS)` to the list of parameters.
3. Save and close the file.

4. Verify the Windows NT/2000 user account(s) you will use to build and administer the database. They are members of the `ORA_DBA` group account (the user who installed Oracle is added to this group automatically.).

Note: If you are using domain authenticated accounts, the PC will need to be connected to the network for NT authentication to work.

6.2.7 Building the Database

If you have an Existing Personal Oracle or Oracle Sever 8.1.6 installed for an existing FEMIS v1.4.7.2 standalone database, skip this section. Otherwise, complete the following to build the database:

1. Click `Start` → `Programs` → `Oracle Oracle-OraHome81` → `Database Administration` → `Database Configuration Assistant`.
2. Select `Create a database`, and click `Next`.
3. Select `Custom` for type of database to create, and click `Next`.
4. Select `Multipurpose for Primary` type of application that will be used. Click `Next`.
5. Enter `1` for `Concurrently connected users`, and click `Next`.
6. Select `Dedicated Server Mode` for mode in which you want your database to operate by default. Click `Next`.
7. Deselect the `Oracle JServer`, and verify that only the following items are checked for the `Select Options` that will be configured for use in your database window.

`Advanced Replication`
`SQL*Plus Help`

Click `Next`.

8. Enter `fi0.world` for the `Global Database Name`. `fi0` will be automatically entered for the `SID`. Accept the default `Initialization Filename` location. For `Compatible Parameter`, select `8.1.0`. **Do not select** `Change Character Set`. Click `Next`.

Note: If you are prompted to enter a password for the `Internal` privileged account, cancel the database creation, and verify Section 6.2.6, `Enabling NT Authentication`, was completed successfully. Restart this section at Step 1 after changes have been made.

9. Accept the default locations and parameters for the `Control Files` if you are installing on a system that has only one physical disk. If you have multiple disks, locate the control files on separate disks, whenever possible. To change the drive location, only change the drive letter and leave the file location path intact. Click `Next`.
10. Change each to the following for the `Size` parameter of the tablespaces. Each tablespace that is going to be created by the Oracle Database Configuration Assistant is represented by a tab in this window. Use the default `Name`, `File`, `Extent`, and `Storage` parameters for all tablespaces.

```
System - 100MB
Tools - 3MB
User - 3MB
Rollback - 50MB
Index - 3MB
Temporary - 20MB
```

Click `Next`.

11. Accept the default location and parameters for the `Redo Logs`. If you have multiple disks, locate the `Redo Logs` on the separate disks, whenever possible. To change the drive location, only change the drive letter, and leave the file location path intact. Click `Next`.
12. Accept the defaults `Checkpoint Interval` and `Checkpoint Timeout`. **Do not check** `Enable Archive Log`. Click `Next`.
13. Accept the default `SGA` parameter information, and click `Next`.
14. Accept the default `Trace File Directory` locations, and click `Next`.
15. Check `Create database now`. Click `Finish`.
16. Click `Yes` on the Message box that follows to create the instance.

Note: The database creation process will take some time.

17. Click `OK` in the Oracle Database Configuration Assistant Alert window.

6.2.8 Creating FEMIS Database Tablespaces

To prepare the database for FEMIS data, additional tablespaces and public rollback segments need to be created. If you have an Existing Personal Oracle or Oracle Sever 8.1.6 installed for an existing FEMIS v1.4.7.2 standalone database, skip this section.

1. Use Windows Explorer to browse to the `STANDALONE` directory under the FEMIS directory created during the install, usually `C:\FEMIS\STANDLALONE`.
2. Use a text editor, such as WordPad, to open the `CR_TABLESPACE.SQL` file.
3. Modify, if necessary, the path locations for the `FMAIN`, `FINDEX`, `FSNAPSHOT`, `FSNAPLOG`, and `FLOB DATAFILES` to be located in the `ORADATA` folders created by the instance installation. If you have multiple hard drives on which to install, preferably locate them on drives other than the drive where Oracle was installed. If you had three drives, for example:

Oracle installed drive	C:\ORACLE\ORA81
FMAIN	D:\ORACLE\ORADATA\FI0\FMAIN01.DBF
FINDEX	E:\ORACLE\ORADATA\FI0\FINDEX01.DBF
FSNAPSHOT	D:\ORACLE\ORADATA\FI0\FSNAPSHOT01.DBF
FSNAPLOG	E:\ORACLE\ORADATA\FI0\FSNAPLOG01.DBF
FLOB	D:\ORACLE\ORADATA\FI0\FLOB.DBF

4. Ensure the paths specified in the `CR_TABLESPACE.SQL` exist. If not, create them.
5. Verify you have sufficient disk space for the data files `size` parameter in the `CR_TABLESPACE.SQL` and room for additional growth when FEMIS data is imported.

Note: Disk space requirements will vary depending on the amount of FEMIS data that has been inputted at your site. `FMAIN` or `FSNAPSHOT` can exceed 300 MB in some installations.

6. Locate the Instance initialization file, `INITFIO.ORA`, which is located in the `<INSTALL DRIVE>:\ORACLE\ADMIN\FI0\PFIL`.
7. Edit the `INITFIO.ORA` with a text editor (such as WordPad). Enable private rollback segments by removing the `#` from the beginning of the parameter and modify it to match the following.

```
ROLLBACK_SEGMENTS = (RBS0, RBS1, RBS2, RBS3, RBS4, RBS5)
```

6.3 Putting Data in the Standalone Database

The standalone database uses data from the FEMIS database located on the server using export files it generates. This allows you to use current data or specify a time when certain data you wish to use was in the database but may have been archived. After a standalone database has been created, you can use this section to either make the standalone current using the latest exports generated by the server or use older FEMIS v1.5 database exports to review older data.

6.3.1 Obtaining FEMIS Database Export

The data needed to create a FEMIS database on the PC is located on the FEMIS server where your EOC's database resides. You will need to know the password for the Oracle account on the server to complete this step. To obtain a FEMIS database export file, complete the following steps:

1. Click on `Start` → `Run`. Enter `telnet <femis server>`.
2. Enter `femis` at the login prompt, and press `Enter`.
3. Enter the `femis` user password for the FEMIS server at the password prompt.
4. Enter `cd $ORACLE_EXPORT`.
5. Enter the command `pwd` to display your current path and note this for later use.
6. Enter the command `ls -l` to list the files in the current directory.
7. Determine the FEMIS database export file you wish to use for the database. If you want the most current data, use the file with the latest date.

Note: The database exports are created nightly by FEMIS provided the cron jobs run successfully. These files remain on the system until the `femis` cron or successful backup deletes the older files. If you wish to use older database exports than those that are present, you will need to restore them from tape backup. The export files are created and named `system_<fi#_date>.dmp` and then compressed, adding the `.z` extension on the end. You can verify the export was created successfully by viewing the `.log` file with the same name.
8. Enter `uncompress <export_file.Z>` to uncompress the file. This will take a few minutes depending on the size of the export file. The export file will no longer have the `.z` extension after it is uncompressed.
9. Go back to the PC, and click on `Start` → `Programs` → `Command Prompt`. The Command Prompt window will display.
10. CD to the standalone directory (usually `C:\FEMIS\STANDALONE`).
11. Enter `ftp <femis server>`.
12. Logon using the `femis` user and password.
13. Enter `cd <export path>`. This is the path you observed from the `pwd` command in Step 8.

14. Enter `bin` to establish binary mode.
15. Enter `get system_<fi#_date>.dmp`. This will take a few minutes depending on size of export file and the speed of your network.
16. Enter `quit` to return the command prompt after the `ftp` has successfully finished.
17. Return to the `telnet <femis server>` window initiated earlier in this section.
18. Enter `compress system_<fi#_date>.dmp`. This will take a few minutes.
19. Enter `exit` to close the telnet window when the prompt returns.

6.3.2 Importing FEMIS Data into the Database

To import the FEMIS data into the database, complete the following steps:

1. Verify you are located in the standalone directory (usually `C:\FEMIS\STANDALONE`) in a command prompt window.
2. Enter the following at the command line:

```
createstandalone.bat system_<fi#_date>.dmp
```

The command will prompt you to press `Return` after each script or command is executed. If you receive unexpected errors from any part of the command, you can use `Ctrl+C` to abort; then correct the problem, and rerun the `createstandalone.bat system_<fi#_date>.dmp`. The step where tables are imported into the database will take some time to complete.

Note: During the execution of the scripts, ignore the import messages: `IMP-00015:` following statement failed because the object already exists:

Note: If the batch scripts are unable to connect to Oracle, verify the Oracle services are running and that you have completed Section 6.2.6, Enabling NT Authentication, successfully.

6.3.3 Updating FEMIS Data in the Database

In the future, if you would like to update the database with current data from your FEMIS server, repeat Section 6.3.1, Obtaining FEMIS Database Export, to get a current database export file, and then run the following command:

```
updatetandalone.bat system_<fi#_date>.dmp
```

6.4 Configuring FEMIS Installation for Standalone Database

When FEMIS was installed from the server, your system was configured for connecting to the server. The following procedure describes the changes needed for FEMIS to run in a standalone mode.

6.4.1 Running SETSTANDALONE.BAT and SETNETWORKED.BAT

The `SETSTANDALONE.BAT` and `SETNETWORKED.BAT` files are located in the `FEMIS\STANDALONE` directory on the PC. Shortcuts to these command files are put in `Start → Programs → FEMIS` when the standalone option is selected. The `SETSTANDALONE.BAT` script file will configure your PC to run FEMIS in standalone mode. The configuration changes made to your PC are

- Changes the Oracle DSNs for your EOCs FEMIS server's database to point to the PC's database listener. Other servers DSNs will remain unchanged but should not be used unless in networked mode.
- Sets the `RunAsStandAlone` entry in the `[Notification Service]` section of `FEMIS.INI` to `TRUE`. This will cause the FEMIS Notification Service to run in standalone mode.

Run the `SETNETWORKED.BAT` script to return a PC to the standard networked configuration. Running `SETNETWORKED.BAT` will

- Run the `ADDODBC.BAT` file to set the Oracle DSNs to connect to the networked databases.
- Set the `RunAsStandAlone` entry in the `[Notification Service]` section of `FEMIS.INI` to `FALSE`. This will cause the FEMIS Notification Service to run in networked mode.

Note: If you are going to be changing a PC's configuration between networked and standalone mode, the `TNSNAMES.ORA` file must be configured for the database installed on the local PC and the databases on the networked FEMIS servers. Use the Net8 Assistant to modify this file by adding Service Names for your local configuration using the following parameters:

```
Net Service Name - fi#.world
Protocol - TCP/IP
Host Name - FEMIS server
Port Number - 1521
(Oracle8i) Service Name - fi#
```

The `tnsnames.ora` you saved in Step 1 of Section 6.2.3, *Installing Oracle8i Server or Personal Oracle8i*, can be used as a reference.

6.4.2 Testing the Setup

You should test the standalone system by shutting the PC down and removing the system from your network. After restarting the PC, check to see if you can start FEMIS. Data on this PC is completely separate and different from a PC running FEMIS that connects to the operational database at your EOC.

If your system is not connected to the network, and you have Remote Access Service (RAS) installed, you might receive a Dial-Up Networking prompt if Auto-Dial is enabled (It is enabled by default.). See Section 6.5, Remote Access Service (NT 4.0 Only), for instructions on disabling Auto-Dial.

6.5 Remote Access Service (NT 4.0 Only)

If you have Remote Access Service (RAS) installed on the PC (used with Remote Evacuee Registration [RER]), you may be prompted to use Dial-Up Networking whenever you attempt to connect to the local database. If you receive this prompt, you can disable this Auto-Dial feature by choosing the following options:

1. Select `Yes, Dial` when the Dial-Up Networking window displays.
2. Click `OK` to add an entry, and in the `Phonebook` entry wizard, click `Cancel` if you received a prompt that your `Phonebook` is empty.
3. Close the Dial-Up Networking window.
4. Select `Yes` to disable the `Auto-Dial` feature when you receive the following message:
`Auto-Dial attempt failed. Do you want to disable auto-dial from this location?`

You can turn this feature off before attempting to install the standalone database by doing the following:

1. Select an entry to dial from the `Phonebook` list in Dial-Up Networking.
2. Click on `More`, and select `User Preferences`.
3. Clear each location listed in the `Enable Auto-Dial by location` list on the `Dialing` tab.
4. Turn on `Auto-Dial` by reselecting a location in the `Enable Auto-Dial by location` list.

6.6 Verifying the Standalone Installation

To verify that the standalone installation is complete and that FEMIS is fully operational, see Section 4.6, Validating the FEMIS PC Installation. The FEMIS PC Validation Checklist (at the end of Section 4.6) includes items that need to be checked to ensure that FEMIS is operating properly.

Because this is a standalone installation, the following items on the checklist **do not need to be verified**:

One Time at Each EOC:	
2	Verify the Evacuation Command Server
3	Only on the server with the depot database, verify FEMIS/EMIS Data Exchange Interface (DEI)
5	Verify User Feedback option
Perform on Every PC:	
13	Verify Evacuation
16	Verify FEMIS Tools on Appropriate PC(s)

If you have a display problem with the D2PC window (cannot see the `Edit/View` and `Close` buttons at the bottom of the D2PC window), you will need to change your system display fonts. Click `Start` → `Settings` → `Control Panel` → `Display` → `Settings` tab, and change the `Font Size` field to `Small Fonts`. Reboot the PC to activate this change.