

*Industry-specific*

**QAD SOLUTIONS**

*Manufacturing Applications*

**Installation Guide  
MFG/PRO eB2 Service Pack 5**



MFG/PRO eB2  
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## Overview

This document is a simplified set of steps for installing Service Pack 5 (SP5) on MFG/PRO eB2. In the past, service packs required a separate installation, even if you were installing MFG/PRO for the first time. Beginning with MFG/PRO eB2, the base installation now incorporates the service pack installation. Only those sites that already have an installed eB2 environment should use the instructions in this document to run a separate service pack install.

This document is sufficient to complete the service pack installation. However, additional information about procedures in this document is located in the installation guide you used to install eB2. Therefore, steps in this document cross-reference more detailed steps in the base MFG/PRO eB2 installation guides (78-0570B and 78-0572B) where appropriate.

The service pack installation requires the following steps:

- Archive and delete existing MFG/UTIL workflow files.
- Install database server and language media to the SP5 install directory.
- Modify the empty database schema to support compiles.
- Load schema changes into your eB2 databases.
- Process service pack data in MFG/UTIL.
- Install client media (character or GUI) to the SP5 install directory.
- Revise database sets.
- Generate client scripts.
- Compile service pack files.
- Update help database.

The process requires the following service pack CDs:

- Database Server
- Language Files
- Character Client, UNIX and Windows
- GUI Client, Windows

## Service Pack Tests and Install Reversals

QAD recommends you complete the service pack installation against a test environment first. By default, the eB2 service pack installs to a separate directory beneath your original *MFGPROInstallDir*. Data deleted from MFG/PRO during the service pack install are preserved in *dumpname.del* files.

The basic process is to back up your databases and then modify your existing empty, production, test, and training databases. To restore your original environment, you would remove the service pack directory from the *PROPATH* and restore the databases from the backup.

## Service Pack Information

The *Service Pack Release Notes* describe significant changes to features of MFG/PRO eB2 introduced in each service pack since the initial MFG/PRO eB2 release. This cumulative document is available in HTML and PDF formats in the *spinfo\web\relnotes* directory on the client service pack CDs. Review the release notes in the *index.html* or *index.pdf* file to understand how changes may affect your current implementation.

Additional detailed service pack information is contained in HTML and ASCII text files located in subdirectories under the *spinfo* directory on the client service pack CDs. The HTML files are located in the *web* subdirectory and the ASCII text files are located in the *text* subdirectory.

Service pack information contains the following elements:

*Module*. Provides information on each module and the files in that module that changed in the service pack.

*Menu*. Provides information on each menu and the files in that menu that changed in the service pack.

*ECOs*. Provides information on each Engineering Change Order (ECO) included in the service pack. This information includes a brief description of the ECO plus cross-references to the modified files, affected menus and modules, and the compiled files for that ECO.

*Modified Files.* Provides information on each file modified by the service pack. This information includes the changes that were made to the file plus cross-references to the ECO that caused the file to be modified, the affected menus and modules, and the entire file, to enable review of all changes in context.

*File Difference.* Provides information on each file modified by the service pack. This information includes the entire file with all of the changes in context and a list of the changes made to the file for specific ECOs.

*Compile List.* Provides a list of all the files that must be recompiled after the service pack has been installed. Additionally, provides cross-references to the modified file information for each file changed in the service pack. This file is located in the `modlist` directory.

During the service pack installation, you can copy the service pack information to any directory you specify. When prompted whether to copy the service pack information, enter Yes, and indicate the destination directory for the information.

## Prior to Installation

This document assumes the person completing this installation has MFG/PRO eB2 installation experience and is proficient in the respective database for which the installation is being completed.

In addition, you must meet all product and system requirements from the installation guide.

**For further information, see the appropriate MFG/PRO eB2 installation guide.**

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*Progress Database:*

“System Requirements” on page 25

*Oracle Database:*

“System Requirements” on page 25

Installing a service pack creates files in the destination directory. When installing service packs, read and write permissions are required in all affected directories. Applying the service pack directly to your production environment may cause third-party products, customizations, localizations, and bolt-on applications to no longer function as expected. Review the service pack information in the `spinfo` directory in order to understand the ramifications of installing the service pack.

**Important** If you have third-party products, you should contact the product suppliers for compatibility issues with this service pack.

The cut-off date for a service pack can be found in the `version.mfg` file in the `mfgpro` directory on each service pack CD.

## Preliminary Setup

Prior to install, review the following cautions and requirements:

**For further information, see the appropriate MFG/PRO eB2 installation guide.**

*Progress Database:*

*Oracle Database:*

“Preliminary Steps” on page 30

“Preliminary Steps” on page 30

- Set your \$TERM variable to a standard terminal type such as vt100 or vt200 while installing the service pack. You can switch to a language-specific terminal if necessary when you launch the installed clients.
- Determine the following information:
  - The MFG/PRO installation directory where eB2 is installed, referred to in this document as *MFGPROInstallDir*
  - The Progress directory for the database server
- For UNIX environments, ensure the mfg user exists as defined in your MFG/PRO eB2 installation guide.

## Archive and Delete Existing Workflows

An important step prior to running the install is to archive the existing MFG/UTIL workflow files and then delete them from your *MFGPROInstallDir*. This ensures that MFG/UTIL displays only the current and correct workflows.

▶ For information about workflows, see “Progress Workflows” on page 7.

- 1 Navigate to your *MFGPROInstallDir*.
- 2 Create a directory below your *MFGPROInstallDir* such as *wkflarch*.
- 3 Copy all workflow files (*wk\*.ini*) from your *MFGPROInstallDir* to the new directory and verify the copy.
- 4 Delete all workflows (*wk\*.ini*) from your *MFGPROInstallDir*.

## Installing Database Server Files

In this set of steps, you install the service pack database server and language files.

**For further information, see the appropriate MFG/PRO eB2 installation guide.**

*Progress Database:*

*Oracle Database:*

“Installing Server Files” on page 32

“Installing the Database Server” on page 37

- 1 Log in as an administrative user with read, write, and execute permissions for your MFG/PRO environment. On UNIX systems, this is typically the mfg user.
- 2 Mount your service pack database server installation media.
- 3 Change to the `install` directory:
 

```
cd install
```

- 4 Launch the database server installation script in that directory:  

```
./install.ksh
```

For Windows, run `install.exe` from Run on the Start menu.
- 5 Accept the license agreement.
- 6 Select the location for the service pack installation log. You should typically use the default directory, which is also the default for the original eB2 installation. This ensures subsequent installations can locate the log directory with all relevant eB2 install information.
- 7 If you choose Yes to view the service pack installation instructions online, your default browser launches and displays service pack and Q/LinQ warnings. Follow the links to the installation instructions.  

If you choose No, the warnings regarding the service pack CD and Q/LinQ display as text. Review each warning and choose Continue.
- 8 Respond to the following prompts:
  - Progress installation directory
  - Original MFG/PRO eB2 installation directory (*MFGPROInstallDir*)
  - Service pack installation directory (*MFGPROInstallDir\SP5*)
- 9 When asked whether this is an Oracle installation, enter Yes or No as appropriate.
- 10 Review the summary screen and select Yes to begin copying the service pack files. Enter No to reenter installation information.
- 11 Remove the database server media, insert the language file media, and repeat steps 3 through 10 to initiate the language files installation.
- 12 Check `mfglangsp.log` for errors.

**For further information, see the appropriate MFG/PRO eB2 installation guide.**

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*Progress Database:*

“Installing Language Files” on page 35

*Oracle Database:*

“Installing Language Files” on page 39

## MFG/UTIL Overview

The remaining instructions are divided into Progress and Oracle database sections. In both, you first update the empty database (Progress) or schema holder (Oracle), then update your existing eB2 databases. Operation sets, or workflows, are available for the MFG/UTIL scenarios.

This document follows the workflows. To accomplish additional tasks, such as creating a new empty database in Progress, you can either modify the workflow provided as documented in the “Planning an MFG/PRO Installation” chapter in both installation guides—Progress and Oracle—or complete the steps using the menu options in MFG/UTIL.

### Progress Workflows

MFG/UTIL completes service pack procedures using individual workflow files that contain the necessary steps and selected data. Each workflow applies to one or more service packs depending on the steps required to upgrade your source version. However, different database names, locations, and schema files (\*.df) are required depending on your installation and source version.

Use Table 1, “MFG/UTIL Progress Database Workflows by Service Pack,” on page 7 to either edit the appropriate workflow or to enter the correct file names when you execute the workflow from MFG/UTIL. Specific instructions for editing the workflows follow the table.

**Note** Steps not requiring edits, such as truncates, do not appear in the table.

Current SP Level	Workflow	Database	.df File or Directory	Function
IR	wk0100.ini	mfgempty	dltmfgIR.df	load schema
		admempty	dltadmIR.df	load schema
	wk0105.ini	mfgprod	./db/kbprod	dump kanban
		mfgprod	dltmfgIR.df	load schema
		admprod	dltadmIR.df	load schema
			spdata	update sp data
			./db/kbprod	update sp data
SP1	wk0100.ini	mfgempty	dltmfgSP1.df	load schema
		admempty	dltadmSP1.df	load schema
	wk0105.ini	mfgprod	./db/kbprod	dump kanban
		mfgprod	dltmfgSP1.df	load schema
		admprod	dltadmSP1.df	load schema
			spdata	update sp data
			./db/kbprod	update sp data
SP2	wk0100.ini	mfgempty	dltmfgSP2.df	load schema
		admempty	dltadmSP2.df	load schema
	wk0105.ini	mfgprod	./db/kbprod	dump kanban
		mfgprod	dltmfgSP2.df	load schema
		admprod	dltadmSP3.df	load schema
			spdata	update sp data
			./db/kbprod	update sp data

**Table 1**  
MFG/UTIL  
Progress Database  
Workflows by  
Service Pack

Current SP Level	Workflow	Database	.df File or Directory	Function
SP3	wk0100.ini	mfgempty	dltmfgSP3.df	load schema
		admempty	dltadmSP3.df	load schema
	wk0115.ini	mfgprod	dltmfgSP3.df	load schema
		admprod	dltadmSP3.df	load schema
SP4	wk0100.ini	mfgempty	spdata	update sp data
			dltmfgSP4.df	load schema
	wk0115.ini	mfgprod	dltmfgSP4.df	load schema
			spdata	update sp data

- 1 Identify your source service pack version in the first column. The following example uses Service Pack 2.
- 2 Navigate to your *MFGPROInstallDir* and open *wk0100.ini* in a text editor. By default, it looks like:

```

WorkFlowDesc=Update Empty Databases

[LoadSchema]
Status=Not Run
Program=raplodd.f.p
DBName=./db/mfgempty.db
;DFName=./sp5/progrs/db/dltmfgSP2.df
LDBName=qadddb
;
;Truncate Empty Database
[TruncBI]
Status=Not Run
Program=truncbi.w
DBName=./db/mfgempty.db
Delay=0
;
;Load Schema into empty DB
[LoadSchema]
Status=Not Run
Program=raplodd.f.p
DBName=./db/admempty.db
;DFName=./sp5/progrs/db/dltadmSP2.df
LDBName=qadadm
;
;Truncate Empty Database
[TruncBI]
Status=Not Run
Program=truncbi.w
DBName=./db/admempty.db
Delay=0
;

```

- 3 Uncomment the *DFName* lines and enter the correct path from your installation, and the correct *.df* file from Table 1 for the database being modified. If you installed MFG/PRO to the default location of *\mfgsvr*, the entry for an SP2 source upgrade would be:

```
DFName=./home/mfg/mfgsvr/sp5/progrs/db/dltmfgSP2.df
```

For the admin database the entry would be:

```
DFName=./home/mfg/mfgsvr/sp5/progrs/db/dltadmSP2.df
```

- 4 For service packs that do not have a data definition update to the admin database (admempty), comment out the load schema section as shown:

```

;Load Schema into empty DB
;[LoadSchema]
;Status=Not Run
;Program=raplodd.f.p
;DBName=./db/admempty.db
;DFName=./sp5/progrs/db/dltadmSP2.df
;LDBName=qadadm

```

- 5 Save the file.
- 6 Open wk0110.ini in a text editor.

**Important** This workflow is wk0115.ini for Service Pack 3 and after.

- 7 Make the same modifications for the schema loads for your production databases using Table 1, “MFG/UTIL Progress Database Workflows by Service Pack,” on page 7. Make sure the database names are correct for your implementation.

Make sure to uncomment and edit the directories (DataDir) for the Kanban dump and load.

Also make sure to comment out the admprod schema update for service packs that do not require this update, such as Service Pack 4.

- 8 Save your changes. When you run the workflows in the next steps, the correct values appear in the various entry screens.

## Progress Databases

*Empty Database Updates.* The empty database workflows are run against the empty Progress databases that are used for compiling. The workflows load both main and admin database schema changes for the empty databases, then truncate the BI files.

▶ See page 10.

*Production Database Updates.* These workflows are run against production databases. The workflows:

▶ See page 12.

- Dump any existing Kanban data
- Load schema changes into both main and admin databases
- Load the service pack data
- Reload dumped Kanban data if it exists
- Truncate the main and admin database BI files

▶ See the *Service Pack Release Notes* for information on the Lean Manufacturing enhancements.

## Oracle Databases

*Oracle Schema Holders.* These workflows create a new empty Progress schema holder for compiling. They then load the full eB2 SP5 main, admin, and help schemas and truncate the BI file.

▶ See page 16.

The updates to Oracle production databases occur outside of MFG/UTIL using SQL files. You then complete data loads in MFG/UTIL.

▶ See page 19.

To continue with an Oracle update, go to “Updating Oracle Databases” on page 14.

## Updating Progress Databases

The entire Progress update can be completed in MFG/UTIL using the workflows appropriate for your current release version. See Table 1 on page 7 to identify the correct workflows.

### Updating Progress Empty Compile Database

For Progress databases, you must either create a new empty database for compiling the updated code base or modify the existing empty database due to modified schemas in previous service packs. The workflow modifies the existing empty database.

#### Load Service Pack Schema to Main Empty Database

- 1 Launch MFG/UTIL on the database server.
- 2 Choose Configure|MFG/PRO Guided Setup.
- 3 Select “Update Progress Empty Databases” in the Operation Set drop-down and choose Run Set.
- 4 The Connect Database screen displays. Accept the defaults and choose OK to connect to `mfgempty`.
- 5 The Load Data Definitions dialog appears. The correct files for each source service pack version are:
  - Initial Release (IR) — `d1tmfgIR.df`
  - SP1 — `d1tmfgSP1.df`
  - SP2 — `d1tmfgSP2.df`
  - SP3 — `d1tmfgSP3.df`
  - SP4 — `d1tmfgSP4.df`

**Example** If you installed the original eB2 release but have not installed any service packs, you would use `d1tmfgIR.df`. If you have installed eB2 SP4, you would use `d1tmfgSP4.df`.

- 6 Choose OK to begin loading the database schema.  
The program first writes the schema to a buffer, then loads it into the database. The write displays a progress screen; the load process does not. In the character interface, for almost half of the load time, you see the message, “Processing schema load. Please wait...”
- 7 When the load completes, close the log window.

### Truncate Main Empty Database BI File

- 1 The Truncate Database Before Image File screen displays. Accept the default path to `mfgempty` and choose Truncate.
- 2 Close the log window that displays on completion.

### Load Service Pack Schema to Admin Empty Database

- 1 The Connect Database screen displays again. Accept the defaults and choose OK to connect to `admempty`.
- 2 The Load Data Definitions dialog appears. The correct files for each source service pack version are:
  - Initial Release (IR) — `dltadmIR.df`
  - SP1 — `dltadmSP1.df`
  - SP2 — `dltadmSP2.df`
  - SP3 — `dltadmSP3.df`
  - SP4 — `dltadmSP4.df`

**Example** If you installed the original eB2 release but have not installed any service packs, you would use `dltadmIR.df`. If you have installed eB2 SP4, you would use `dltadmSP4.df`.

- 3 Choose OK to begin loading the database schema.  
The program first writes the schema to a buffer, then loads it into the database. The write displays a progress screen; the load process does not.
- 4 When the load completes, close the log window.

### Truncate Admin Empty Database BI File

- 1 The Truncate Database Before Image File screen displays. Accept the default path to `admempty` and choose Truncate.
- 2 Close the log window that displays on completion.
- 3 You return to the Guided Setup screen.

This completes the work to update the empty database.

## Updating Progress Production and Other Databases

### Dump Kanban Data

**Note** You can skip the dump of the Kanban data if you are upgrading from SP3 or SP4 to SP5.

Service Pack 3 introduced major enhancements to the Kanban module supporting lean manufacturing techniques. The SP5 upgrade menus and programs use Lean Manufacturing in their titles. The Kanban data dump is run for all databases whether Kanban data exists or not. If it does not exist, the process only takes a few seconds.

- 1 While still in the Guided Setup screen, select the correct update workflow for your service pack source version in the Operation Set drop-down and choose Run Set. It will be either:
  - Update Production DBs from pre SP3
  - Update Production DBs from SP3 and later
- 2 The Connect Database screen displays. Accept the defaults and choose OK to connect to `mfgprod`.

**Important** Rerun this script for each eB2 production, test, or training database you want to update to the current service pack. The only change required is to modify the database name. You can do this by modifying the appropriate workflow file as shown in Table 1, “MFG/UTIL Progress Database Workflows by Service Pack,” on page 7.

You can also modify the database name by entering the new database name during the workflow execution in MFG/UTIL.

- 3 You are asked to enter a dump directory. If it does not exist, it is created.
- 4 The dump starts and the dump log displays. When the dump is complete, choose Close.

### Load Production and Admin Schema

- 1 The Connect Database screen appears. Make sure you are connected to the main database, such as `mfgprod.db`. Choose OK.
- 2 The Load Data Definitions dialog appears. The correct files for each source service pack version are:
  - Initial Release (IR) — `dltmfgIR.df`
  - SP1 — `dltmfgSP1.df`
  - SP2 — `dltmfgSP2.df`
  - SP3 — `dltmfgSP3.df`

- SP4 — `dltmfgSP4.dfb`

**Example** If you installed the original eB2 release but have not installed any service packs, you would use `dltmfgIR.dfb`. If you have installed eB2 SP4, you would use `dltmfgSP4.dfb`.

- 3 Choose OK to begin loading the database schema.
- 4 Close the log screen, then close the Load Data Definition screen.
- 5 The Connect Database screen appears again. This time, connect to the admin database, such as `admprod.db`. Choose OK.
- 6 The Load Data Definitions dialog appears. The correct files for each source service pack version are:
  - Initial Release (IR) — `dltadmIR.dfb`
  - SP1 — `dltadmSP1.dfb`
  - SP2 — `dltadmSP2.dfb`
  - SP3 — `dltadmSP3.dfb`
  - SP4 — `dltadmSP4.dfb`

**Example** If you installed the original eB2 release but have not installed any service packs, you would use `dltadmIR.dfb`. If you have installed eB2 SP4, you would use `dltadmSP4.dfb`.

- 7 Choose OK. The schema is updated with SP5 changes.
- 8 Close the log screen, then close the Load Data Definition screen.

### Load Service Pack and Lean Manufacturing Data

These steps first load service pack data, then the Kanban data if it exists. The Kanban data load, like the dump, is run for all databases whether Kanban data exists or not. If it does not exist, the process only takes a few seconds. Use these steps for both main (production, test, training, and so on) and administration databases.

- 1 The Service Pack Data load screen displays. The data directory points to your service pack installation directory. The databases built in MFG/UTIL and referenced in your `mfgutil.ini` file appear in the available database window. You can Ctrl+click to select the databases you want to update. You can also choose Add Database to select a database not referenced in `mfgutil.ini`. Choose OK to initiate the loads.
- 2 The Connect Database screen displays. Choose OK. The first database connection occurs.
- 3 You are asked whether to create a dump directory for the service pack data that is obsolete. Choose Yes to create the directory.

- 4 The processing starts by removing conflicting data from the tables. The new service pack data is then loaded.
- 5 The process then repeats for language updates—connect, remove conflicting data, and load new data—this time from the *MFGPROInstallDir\SP5\spdata\xx* directory, where *xx* is the language code.
- 6 When the service pack data loads are complete for the first database you selected, the next database is then connected and the loads repeat (steps 4 and 5) until all selected databases are updated.  
**Note** You can skip steps 7 and 8 if you are upgrading from SP3 or SP4 to SP5.
- 7 The Service Pack Data load screen then displays again for the Kanban loads. By default, the *C:\mfgsvr\db\kbprod* directory displays. If this is not where you dumped the Kanban data, modify it. Choose OK. The Add Database screen displays.
- 8 Repeat steps 1 through 6 to complete the Kanban loads.
- 9 When all databases are updated, choose Close in the Service Pack Data load screen.

### Truncate Database BI Files

- 1 The Truncate BI File screen displays. Enter the path to a main or administration database that you just modified and choose Truncate.
- 2 Close the log window that displays on completion.
- 3 The Truncate BI File screen displays again. Repeat steps 1 and 2 for each modified database.
- 4 Close the log window that displays on completion.

This completes the work to update your main and administration databases.

To complete the service pack updates for your Progress environment, go to “Loading Language-Specific Information” on page 22.

## Updating Oracle Databases

The creation of the Oracle empty schema holder for existing eB2 databases is completed in MFG/UTIL using the workflow:

- *wk0120.ini* — Create Oracle Schema Holder

The remaining updates to Oracle production, test, and training databases occur outside of MFG/UTIL using SQL files and additional MFG/UTIL steps.

## Oracle Workflows

MFG/UTIL completes service pack procedures for all source service pack versions using a workflow file that contains the necessary steps and selected data. However, different database names, locations, and schema files (\*.df) are required depending on your installation and source version.

Use Table 2 to either edit the appropriate workflow or to enter the correct file names when you execute the workflow from MFG/UTIL. Specific instructions for editing the workflow follow the table.

**Note** Steps not requiring edits, such as truncates, do not appear in the table.

Oracle Source Service Pack	Workflow	Database	.df File or Directory	Function
IR	wk0120.ini	oraempty	oraIR.df	load schema
		oraempty	oadmIR.df	load schema
		oraempty	ohlpIR.df	load schema
SP1	wk0120.ini	oraempty	oraSP1.df	load schema
		oraempty	oadmSP1.df	load schema
		oraempty	ohlpSP1.df	load schema
SP2	wk0120.ini	oraempty	oraSP2.df	load schema
		oraempty	oadmSP2.df	load schema
		oraempty	ohlpSP2.df	load schema
SP3	wk0120.ini	oraempty	oraSP3.df	load schema
		oraempty	oadmSP3.df	load schema
		oraempty	ohlpSP3.df	load schema
SP4	wk0120.ini	oraempty	oraSP4.df	load schema
		oraempty	ohlpSP4.df	load schema

**Table 2**  
MFG/UTIL Oracle Database Workflows by Service Pack

- 1 Identify your source service pack version in the first column. This example uses Service Pack 2.
- 2 Open wk0120.ini in a text editor. By default, it looks like:

```

WorkflowDesc=Create Oracle Schema Holder

[CreateSSDB]
Status=Not Run
Program=rapmkdb.p
DBName=./db/oraempty
;
[LoadSchema]
Status=Not Run
Program=raploddf.p
DBName=./db/oraempty.db
;DFName=./sp5/ora/db/oraSP1.df
;LDBName=
;
[LoadSchema]
Status=Not Run
Program=raploddf.p
    
```

```

DBName= ./db/oraempty.db
;DFName= ./sp5/ora/db/oadmSP1.df
;LDBName=
;
[LoadSchema]
Status=Not Run
Program=raplodd.f.p
DBName= ./db/oraempty.db
;DFName= ./sp5/ora/db/ohpSP1.df
;LDBName=
;
[TruncBI]
Status=Not Run
Program=truncbi.w
DBName= ./db/oraempty.db
Delay=0
;

```

- 3 Uncomment the DFName lines and enter the correct path from your installation, and the correct .df file from Table 2 for the specific database load. If you installed MFG/PRO to the default location of `\mfgsvr`, the entry for an SP2 source upgrade would be:

```
DFName= ./sp5/ora/db/oraSP2.df
```

For the admin and help loads, the entries would be:

```
DFName= ./sp5/ora/db/oadmSP2.df
```

```
DFName= ./sp5/ora/db/ohlpSP2.df
```

- 4 For service packs that do not have a data definition update to the admin database (admempty), comment out the load schema section as shown:

```

;[LoadSchema]
;Status=Not Run
;Program=raplodd.f.p
;DBName= ./db/oraempty.db
;DFName= ./sp5/ora/db/ohpSP1.df
;LDBName=

```

- 5 Save your changes. When you run the workflows in the next steps, the correct values appear in the various entry screens.

## Creating an Oracle Empty Compile Schema Holder

For Oracle databases, you must create a new empty schema holder for compiling the updated code base due to modified schemas. The process consists of creating the new empty schema holder, performing three schema loads into the new schema holder database—`ora<SP#>.df`, `oadm<SP#>.df`, `ohlp<SP#>.df`—and truncating the BI file. The tasks are run from the appropriate MFG/UTIL operation set, Create Oracle Schema Holder, for your source service pack level.

**Note** The term empty here refers to the master or source schema holders used for creating production schema holder copies and for compiling against. All Progress schema holders are, by definition, empty.

### Create Empty Schema Holder

- 1 In MFG/UTIL, select MFG/PRO Guided Setup from the Configure menu.
- 2 Select the Create Oracle Schema Holder workflow in Operation Set.
- 3 Tab to select Run Set and press Enter.
- 4 The Create Database screen displays. In the New Physical Database Name field, accept the default or enter the name you want to use for the schema holder. This guide refers to the schema holder using the default `oraempty`.  
Accept the default Start with option, choose OK. The schema holder is created.

### Load the MFG/PRO Schema

After the schema holder is created, the Connect Database screen displays.

- 1 Verify that the Physical Database Name field contains the path to and name of the schema holder. Leave the other fields blank and choose OK to connect to the schema holder.
- 2 In the Load Data Definitions screen, verify that the correct `.df` file is specified in the Data Definition File field. Use Table 2, “MFG/UTIL Oracle Database Workflows by Service Pack,” on page 15 to verify the file name. Choose OK to load the main MFG/PRO schema contained in the data definition file.  
When the Load Completed prompt displays, choose Close.  
The data definition load screen reappears with the Close button selected. Press Enter to close the screen.
- 3 The Connect Database screen displays. Accept the defaults and choose OK to reconnect to the schema holder.
- 4 The data definition load screen displays. Verify that the correct `.df` file is specified in the Data Definition File field. Use Table 2, “MFG/UTIL Oracle Database Workflows by Service Pack,” on page 15 to verify the file name. Choose OK to load the MFG/PRO administration data definition file.
- 5 When the Load Completed prompt displays, choose Close. The data definition load screen reappears with the Close button selected. Press Enter to close the screen.
- 6 The Connect Database screen displays. Accept the defaults and choose OK to reconnect to the schema holder.

- 7 The data definition load screen displays. Verify that the correct `.df` file is specified in the Data Definition File field. Use Table 2, “MFG/UTIL Oracle Database Workflows by Service Pack,” on page 15 to verify the file name. Choose OK to load the MFG/PRO help schema contained in help data definition file.
- 8 The data definition load screen re-appears. Choose Close.

### Truncate the Before-Image File

You now truncate the empty database before-image (BI) file.

- 1 The Truncate Database Before Image File screen displays. Accept the default path to `oraempty` and choose Truncate.
- 2 Choose Close in the progress screen when the process is complete.
- 3 Exit the Operation Sets. The remainder of the Oracle update process occurs outside of the workflows.

### Create New Production Schema Holders

The empty schema holder was created with the default name `oraempty`. Create a copy of this database with a new name and update the foreign database reference (the schema holder reference to the Oracle database) from the default, `qaddb`, to the actual Oracle database name.

- 1 Log on as `mfg`.
- 2 Launch MFG/UTIL.  

```
./mfgutil
```

For Windows, launch MFG/UTIL from the icon on the Start menu.
- 3 Select Create New Database from the DataServer|Oracle menu. The current schema holder, `./db/oraempty`, displays by default. Enter the name you want to use for your production schema holder under New Database Name, usually your Oracle SID. Choose OK.  
**Note** You do not need to enter the path for the new schema holder. It is created in the same directory as the current schema holder by default.
- 4 When the copy completes, choose Close.
- 5 In the Oracle Database Name field, verify that the Oracle database name matches your Oracle SID. When ready, choose OK.
- 6 Confirm the names at the verification prompt.  
The foreign database reference in the schema holder is changed from `qaddb` to the Oracle database name (`eb2ora`, for example).
- 7 The server install finishes.

## Updating the Oracle Database

Up to now, you have been creating a new Progress schema holder for your Oracle environment. You now update the Oracle database. For releases prior to eB2 SP3, you dump any Kanban data in your database. You then run the SQL delta schema files that update your Oracle schema.

### Dump Kanban Data

**Note** You can skip the dump of the Kanban data if you are upgrading from SP3 or SP4 to SP5.

Service Pack 3 introduced major enhancements to the Kanban module supporting lean manufacturing techniques. The SP5 upgrade menus and programs use Lean Manufacturing in their titles. The Kanban data dump is run for all databases whether Kanban data exists or not. If it does not exist, the process only takes a few seconds.

**Important** Repeat these steps for each eB2 production, test, and training database you want to update to Service Pack 5. The only change required is to modify the database name.

- 1 In MFG/UTIL, select Database|Service Pack Process|Dump Lean Manufacturing.
- 2 The Connect Database screen displays. Accept the defaults and choose OK to connect to your existing production schema holder.
- 3 You are asked whether to connect to the Oracle database represented by the connected schema holder. Choose Yes.
- 4 In the Connect Database screen that appears, enter `qad/qad` in the User ID field. On client/server installations, enter `qad/qad@ORACLE_SID` for the User ID.
- 5 You are asked to enter a dump directory. If it does not exist, it is created.
- 6 The Dump Data screen displays. This step dumps existing Kanban data.
- 7 The dump log displays. When the dump is complete, choose Close.

## Schema Changes for Oracle Databases

Schema changes to Service Pack 5 require that all prior eB2 installations have the new schema loaded. There were additional schema changes in Service Pack 2. There are different scripts for the following possible scenarios listed in Table 3.

Current eB2 on Oracle Status	SQL Update Script to Use
eB2 initial release (IR)	dltIR.sql
eB2 Service Pack 1	dltSP1.sql
eB2 Service Pack 2	dltSP2.sql
eB2 Service Pack 3	dltSP3.sql
eB2 Service Pack 4	dltSP4.sql

**Table 3**  
Service Pack 5  
Delta SQL by  
Release

**Example** If you installed the original eB2 release but have not installed any service packs, you would use `dltIR.sql`. If you have installed eB2 SP4, you would use `dltSP4.sql`.

### Update the Oracle Database Schema

Follow these steps to run the service pack SQL script to update the Oracle database schema:

- 1 Connect to the Oracle database as the database owner, typically `qad`.
- 2 Run the appropriate script using the list in Table 3.

**Example** `sqlplus qad/qad < dltSP2.sql`

After you run the appropriate SQL script to update the Oracle database schema, you must update or re-create your system schema holders using the service pack `.df` files.

### Load Service Pack and Lean Manufacturing Data

These steps first load service pack data, then the Kanban data if it exists. The Kanban data load, like the dump, is run for all databases whether Kanban data exists or not. If it does not exist, the process only takes a few seconds. Use these steps for your production, test, training, and other eB2 databases.

- 1 In MFG/UTIL, select Database|Service Pack Process|Process Service Pack Data.
- 2 The Service Pack Data load screen displays. The data directory points to your service pack installation directory. The schema holders built in MFG/UTIL and referenced in your `mfgutil.ini` file appear in the available database window. You can Ctrl+click to select the schema holders you want to update. You can also choose Add Database to select a database not referenced in `mfgutil.ini`. Choose OK to initiate the loads. The first schema holder connection occurs.
- 3 You are asked whether to connect to the Oracle database represented by the connected schema holder. Choose Yes.

- 4 In the Connect Database screen that appears, enter `qad/qad` in the User ID field. On client/server installations, enter `qad/qad@ORACLE_SID` for the User ID.
- 5 You are asked whether to create a dump directory for the service pack data that is obsolete. Choose Yes to create the directory.
- 6 The processing starts by removing conflicting data from the tables. The new service pack data is then loaded.
- 7 The process then repeats for language updates—connect, remove conflicting data, and load new data—this time from the `MFGPROInstallDir\SP5\spdata\xx` directory, where `xx` is the language code.
- 8 When the service pack data loads are complete for the first database you selected, the next database is then connected and the loads repeat (steps 6 and 7) until all selected databases are updated.  
**Note** You can skip steps 9 and 10 if you are upgrading from SP3 or SP4 to SP5.
- 9 The Service Pack Data load screen then displays again for the Kanban loads. By default, the `C:\mfgsvr\db\kbprod` directory displays. If this is not where you dumped the Kanban data, modify it. Choose OK. The Add Database screen displays.
- 10 Repeat steps 2 through 8 to complete the Kanban loads.
- 11 When all databases are updated, choose Close in the Service Pack Data load screen.

### Truncate Database BI Files

- 1 Select Database|Truncate Database. The Truncate BI File screen displays. Enter the path to a database you just modified and choose Truncate.
- 2 Close the log window that displays on completion.
- 3 The Truncate BI File screen displays again. Repeat steps 1 and 2 for each modified database.
- 4 Close the log window that displays on completion.

This completes the work to update your main databases.

To complete the Service Pack 5 updates for your Oracle environment, continue with “Loading Language-Specific Information”.

## Loading Language-Specific Information

**Important** Complete the following steps for both Progress and Oracle databases. These changes are to the Compile database set only.

After installing the service pack language CD, your installation directory may contain the following updated language-specific files in the `\sp $x$ \yy` subdirectory, where  $x$  is your service pack number and  $yy$  is your two-letter language code:

- `xdc_mstr.d`: Language-specific database dictionary labels.
- `xdc_mstr_upd.d`: SP5 delta language-specific database dictionary labels.
- `utcompil.wrk`: Required compile list to implement the language updates.
- `<fieldhelp>.fhd`: Language-specific help updates.

### Update the Compile Database Set Schema Labels

For all non-English language installations, use these steps to update your compile database schema labels.

**Warning** Label customizations in your existing compile database set may be lost when you copy or load the service pack information. Take the appropriate steps to back up and restore your customizations as needed.

Use the following instructions to update the translated schema labels in your existing language-specific compile database set. This procedure uses the delta SP5 file, `xdc_mstr_upd.d`:

- 1 In MFG/UTIL select Database|Load Translated Labels.
- 2 In the Connect Database screen, specify the path and name of the language-specific database in the Physical Name field. Choose OK to continue.
- 3 After a connection is made, specify the path to the service pack installation directory that contains the `xdc_mstr_upd.d` data file.
- 4 Choose OK to begin loading the translated labels.
- 5 Continue your service pack installation up to “Compile SP5 Code” on page 24. When you reach this section, compile the service pack code as instructed. You must then perform a second compile using the `utcompil.wrk` that was copied in your language directory along with the `xdc_mstr_upd.d` file.

## Installing Host Clients or Client File Servers

On UNIX systems, the host client is the only installation required for UNIX character clients. All other UNIX clients connect to the host via telnet to run the client scripts.

On Windows, the first client installed, character or GUI, is called the file server because it contains the MFG/PRO eB2 source code. It is this client or file server where the code is compiled, the database sets are defined, and the original scripts are generated. Additional clients that connect to Windows file servers are called remote clients. The remote clients require no modifications for SP5.

- 1 Mount your SP5 character or GUI client installation media.
- 2 On the CD, change to the directory containing the client.
- 3 Change to the `install` directory:  

```
cd install
```
- 4 Launch the database server installation script in that directory:  

```
./install.ksh
```

For Windows, run `install.exe` from Run on the Start menu.
- 5 Accept the license agreement and follow the prompts:
  - Installation log location
  - Progress installation directory
  - Original MFG/PRO eB2 client installation directory (by default this is the same as the `MFGPROInstallDir`)
  - Location of SP5 directory (a subdirectory within the client directory)
- 6 Choose the Finish button and press Enter to begin copying the files.
- 7 For UNIX and Windows character installs, check `mfgchrclsp.log` for errors. For Windows GUI installs, check `mfgguiclsp.log`.
- 8 Remove the media.

## Modify Database Sets and Scripts

If you created a new empty database for compiles, enter the new database or schema holder name using the following steps. In addition, use these steps to create a database set for your new SP5 production, test, and training databases.

**For further information, see the appropriate MFG/PRO eB2 installation guide.**

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*Progress Database:*

*Oracle Database:*

“Configuring Database Sets” on page 62

“Configuring Database Sets” on page 72

“Generating Scripts and Shortcuts” on page 72

“Generating Scripts and Shortcuts” on page 82

- 1 In MFG/UTIL, select Configure|Database Set Maintenance.
- 2 Use the updated databases to create new database sets.
- 3 Modify the PROPATH for each set so that the SP5 directory appears first.
- 4 Save and exit from Database Set Maintenance.
- 5 Select Scripts|Generate Scripts.
- 6 Select all database sets for which you need new scripts and choose OK.

## Compile SP5 Code

The minor differences between the SP5 compile procedure and the standard compile are noted in the following steps.

**For further information, see the appropriate MFG/PRO eB2 installation guide.**

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*Progress Database:*

*Oracle Database:*

“Compile” on page 68

“Compile” on page 77

- 1 In MFG/UTIL, select Programs|Compile Procedures.
- 2 Select the compile list, `utcompil.wrk`, from the following directory:  
`MFGPROInstallDir\SP5\modlist`
- 3 Set the compile destination to the SP5 directory, `MFGPROInstallDir\SP5`.
- 4 Compile the programs.
- 5 Check `mfgutil.log` for errors.
- 6 Launch MFG/PRO using the new scripts.
- 7 Verify that the MFG/PRO eB2 welcome screen displays eB2 SP5.

Nothing is required to connect and use existing remote clients against the revised SP5 environments.

## Updating the Help Database

Service packs after SP2 include a `kb_help.fhd` file to update your help database. The file is different in Service Pack 3; if you are only upgrading from SP3 or SP4 to SP5, you should still complete the help load. Use the following steps to load it into your SP5 databases:

- 1 Launch MFG/PRO.
- 2 Go to Field Help Load (36.4.19).
- 3 In the Language field, enter the MFG/PRO language code of the language that you are loading help for, and press Enter.
- 4 Skip to Field Help Load File, leaving all other fields blank, and enter the two-letter language code directory followed by the name of the help file. For example, for U.S. English, enter `SP5\us\kb_help.fhd`.
- 5 Accept the default values in all other fields.
- 6 Press Go to begin the load process.  
As the load proceeds, the number of records that have been read and loaded displays at the bottom of the screen.
- 7 Load help for any other languages in your environment using the appropriate language code and help file.

## Access Revised Help Information

Updated help is available in character mode only. If your configuration includes Windows GUI clients, perform these additional steps to make the character-based help viewable from those clients:

- 1 Open User Maintenance (36.3.18).
- 2 For each user accessing the new functions, set WinHelp to No.
- 3 Press Go to save the changes.