

Industry-specific

QAD SOLUTIONS

Manufacturing Applications

MFG/PRO eB2 Conversion Guide



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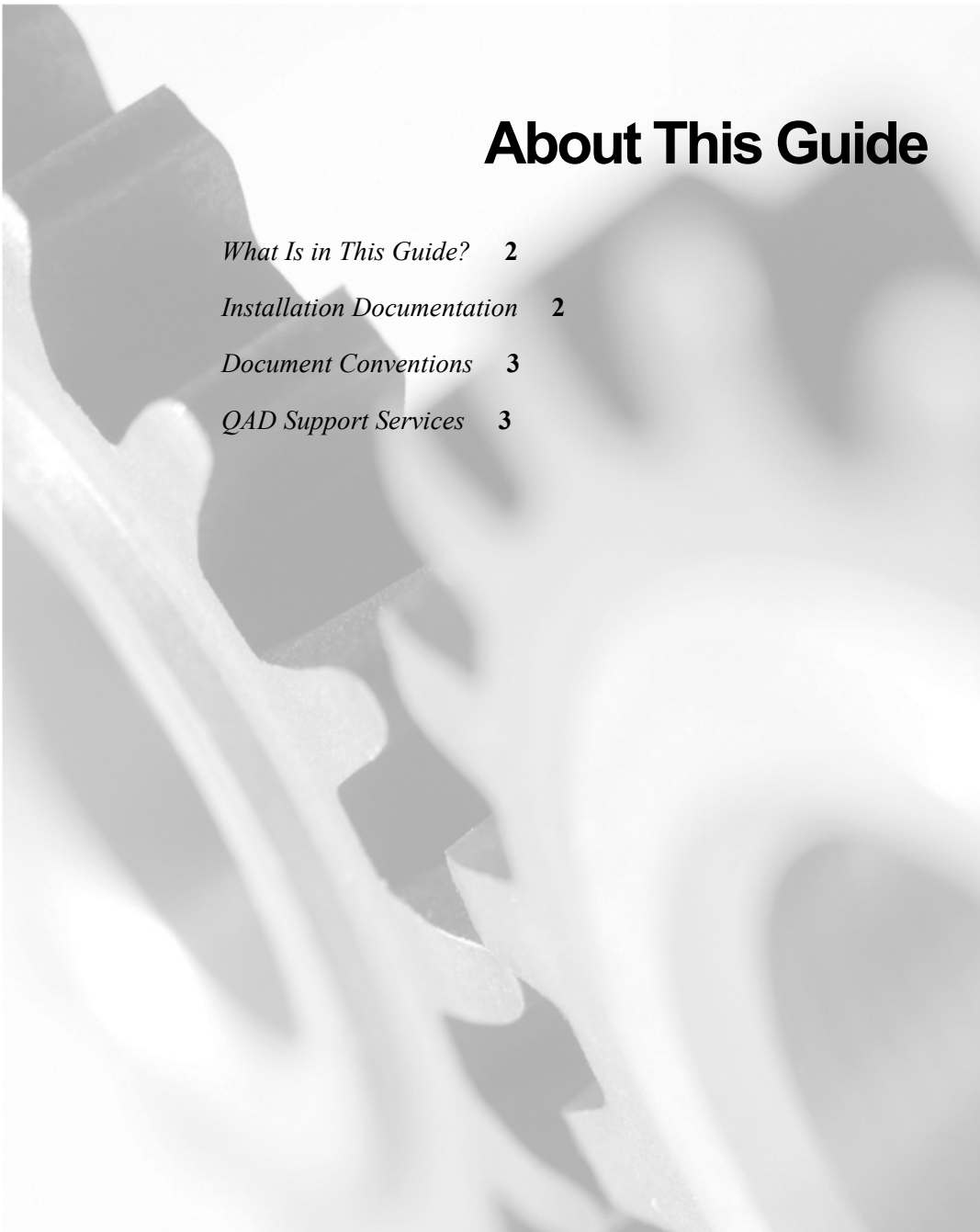
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What Is in This Guide?

The instructions in this guide convert MFG/PRO versions 7.3 through eB to the MFG/PRO eB2 release. This guide covers both UNIX and Windows conversions, and both Oracle and Progress databases. The conversion process requires installing MFG/PRO eB2. This installation is documented in:

- *MFG/PRO eB2 Installation Guide: Progress Database, 78-0570A*
- *MFG/PRO eB2 Installation Guide: Oracle Database, 78-0572A*

Audience

These instructions are for the system administrator who is converting the MFG/PRO database and is familiar with the UNIX and Windows operating systems, Progress or Oracle software, and networking.

Installation Documentation

This document is available on the QAD Global Support Web site:

<http://support.qad.com/documentation/>

Before you start the conversion, make sure this is the most current document (item 78-0571A).

This document supports the installation of the following CDs:

- Database server
- Database server language files
- Character client
- GUI client

Note CD item numbers are dependent on your purchased configuration.

Related MFG/PRO Installation Documentation

The MFG/PRO installation creates your production and support databases, and any training, development, or pilot databases you need.

- To install QAD Desktop, see *Installation Guide: QAD Desktop*.
- To install Q/LinQ, see *External Interface Guide: Q/LinQ*.

For a full list of other documentation, see the QAD Web site.

Document Conventions

This guide uses the conventions listed in the following table.

If you see:	It means:
<code>monospaced text</code>	A command, file name, or path.
<i>italicized monospaced text</i>	A variable name for a value you enter as part of an operating system command; for example, <i>cdrom</i> .
indented command line	A long command that you enter as one line although it appears in the text as two lines.
Note	Exceptions or special conditions.
Important	Critical information.
Warning	Situations where you can overwrite or corrupt data, unless you follow the instructions.

UNIX and Windows Conversions

This document supports the conversion of MFG/PRO for both UNIX and Windows platforms. The instructions use character screens and UNIX file and path conventions. In the few places where the two sets of instructions diverge, the headings and text explicitly declare which operating system is the focus of the current set of instructions.

QAD Support Services

MFG/PRO installations have a wide variety of configuration possibilities, are highly scalable, and are easily customized. While this guide provides basic conversion information, it cannot consider every possible computing environment or configuration.

To take full advantage of MFG/PRO's flexibility and potential in your specific environment, contact your QAD Support representative for information on the installation and customization offerings supplied by QAD. These offerings include performance enhancements as well as technical and administration training.

Planning a Conversion

This chapter discusses the following topics:

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<i>Required Application Conversions</i>	8
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Conversion Overview

The conversion of an MFG/PRO environment goes through the following general stages:

Prepare the source database. This includes archiving and deleting records to the extent you can and running several reports for which you will run equivalent reports in the target database after the conversion in order to check the data. It also includes preparations to preserve system-level custom data, such as user help and menus.

Create the target database. This is a standard installation except you do not load the default system data. In addition, for Progress databases, you also need to migrate them to the Progress 9.1 schema. There are separate chapters in this guide for the Progress and Oracle processes.

Dump data from the source database. The source dump starts with answering questions in the automated conversion tool, MFG/CONV. These include both environment-specific questions and application questions. You then dump your source production data and perform a few custom data dumps.

Load data into the target database. You load your production data and then MFG/PRO eB2 system data into the target version. There are separate chapters in this guide for the Progress and Oracle processes.

Complete post-processing steps. Post-processing includes several types of activity. You first complete some manual preparation steps in the target database, depending on what new features you are implementing and what version you are converting from.

You then run the target version conversion programs. Some of these are required; some are optional.

Next, some utility programs must be run. The utilities are distinct from the conversion programs because they are located on the MFG/PRO menu and can be run during normal database operation, as well as during database initialization.

Additional manual setup is required for some programs, such as control settings or generalized codes. You then restore the custom default data, such as menus and user help.

System-Level Planning

At the system level, you will have two full production databases—source and target—as well as disk space and memory requirements for processing. The schedule for your conversion will also depend on a number of variables.

Disk Space

QAD recommends starting out with disk space for the equivalent of two-and-one-half to three full production databases. If you have a 20 GB source version production database, ensure a minimum of 50 GB before starting the conversion.

Memory Requirements

The larger conversion programs that run against the target database have been tested by QAD to ensure they scope transactions to avoid filling standard memory buffers. However, memory is crucial to the performance of these programs. A minimum of 2 GB is recommended.

Scheduling

Always run a test conversion. This ensures you have encountered any operating system (OS), application, or documentation problems you might have; asked all the required application questions of the appropriate experts; and can determine a full production conversion schedule.

If you are converting a large database (10 GB +), and your schedule is going to run longer than a weekend, contact QAD Support and ask about the in-place conversion option. This is available through QAD Services for both Oracle and Progress installations.

For any conversion, QAD recommends that you contact Support to discuss your plans and expectations with a qualified Support representative. You can arrange to have a QAD Services or Support contact on-call over a weekend or during nights for a conversion if you choose.

Required Application Conversions

The following conversions are run automatically by the MFG/CONV utility. Where additional application information is available, a reference appears in the margins. These conversions are listed in the order in which they are run. If a conversion does not apply to your database—for example, you do not have commodity codes—the program runs quickly, updates nothing, and ends.

Currency Conversion

MFG/PRO Version: 7.4

Conversion Program: None

Description

This conversion is a manual update performed during post-processing. It is required only if you are converting from version 7.4 with Global Tax Management (GTM) or the GL Report Writer implemented.

Additional References

There are several steps at different points during the conversion:

- Source preparation: “Currency Conversion (7.4 only)” on page 29
- Post-processing: “Currency Conversion” on page 90

Corporate Commodity Codes

MFG/PRO Version: 7.4, 8.5

Conversion Programs: tvcomcd.p, tvcmcd85.p

Description

The commodity code conversion programs move commodity code data from your source version item master table (`pt_mstr`) and QAD work tables (`qad_wkfl`) to the new target version corporate commodity code table (`comd_det`). These programs run during post-processing on the target database.

Additional References

- Source preparation: “Corporate Commodity Codes Conversion” on page 31
- Target conversion: “Running Target Version Conversions” on page 93
- Post-processing: “Corporate Commodity Codes Post-Conversion” on page 105

Menu Updates to qad_wkfl

MFG/PRO Version: 7.4

Conversion Program: `tvvp6.p`

Description

This post-processing conversion program moves the menu detail records from the table `mnd_det` to `qad_wkfl` records.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

Multi-Language Update

MFG/PRO Version: 7.4

Conversion Program: `tvvp8.p`

Description

The multi-language update post-processing program creates records for the default US language. This enables multi-language capabilities introduced in version 8.5 and has no impact on single-language installations.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

Extended Account Structure

MFG/PRO Version: 7.4, 8.5, 8.6, 9.0

Conversion Program: `tveas.p`

Description

▶ See *User Guide Volume 4A: Financials*.

Using the sub-account length setting in System/Account Control (the `gl_sub_len` field in the `gl_ctrl` table), this post-processing conversion moves sub-account information to a new sub-account field. This conversion also saves elements of the source version account structure for use by the Global Tax Management (GTM) conversion programs.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

Euro Data Conversions

MFG/PRO Version: 7.4, 8.5, 8.6–8.6D

Conversion Program: `tvcuex.p`, `tvtri.p`

Description

▶ See *User Guide Volume 4A: Financials*.

The euro data conversions require several steps at different points during the conversion process. You must post foreign currency transactions in the source database, enter accounts for multi-currency transactions in the MFG/CONV prompts, and run two target version conversion programs.

This set of post-processing conversion programs populates the target version database with euro data to comply with European Monetary Union requirements and the introduction of additional multicurrency functionality. If the Euro Toolkit is implemented in your source version, the conversion transfers the toolkit data to the euro tables in the target version.

In addition, several steps must be completed in the target database.

Additional References

- Source preparation: “Euro Data Conversion” on page 32
- Source dump: “Euro Data Conversion Prompts” on page 61
- Target conversion: “Running Target Version Conversions” on page 93
- Post-processing: “Euro Data Post-Conversion” on page 105

MRP to Repetitive Approval Conversion

MFG/PRO Version: 7.4, 8.5, 8.6, 9.0

Conversion Program: `tvmrp.p`

Description

This conversion consists of a post-processing conversion program that moves fields from the QAD work table (`qad_wkfl`) to the new line allocation detail table to enable the MRP to Repetitive Approval Phase 2 functionality. It also requires several post-processing steps in the target database and launching a post-processing utility.

▶ See *User Guide Volume 3: Manufacturing*.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93
- Post-processing: “MRP to Repetitive Approval” on page 99

Voucher History Conversion

MFG/PRO Version: 7.4, 8.5, 8.6, 9.0, eB

Conversion Program: `tvvphpvo.p`

Description

This post-processing conversion program converts PO receipt history into pending vouchers, loads voucher receipt history, and updates the indexes and key values.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

Service/Support Management Conversions

MFG/PRO Version: 7.4, 8.5, 8.6, 9.0, eB

Conversion Program: `tvssaddet.p`, `tvssarmst.p`, `tvssm2.p`

Description

▶ See *User Guide Volume 8A: Service/Support Management*.

The Service/Support Management (SSM) module has major changes to service contracts offering options for designing contracts, generating contract billing, and managing the general ledger (GL) effects of contracts. Implementing this requires a set of three post-processing conversion programs. Do not rerun these conversion programs.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

Multi-Entity Accounting Conversion

MFG/PRO Version: 7.4, 8.5, 8.6, 9.0, eB

Conversion Program: `tvmea.p`

Description

This post-processing conversion program converts several accounts, including all entity master accounts, to intercompany accounts.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

MRP Detail Conversion

MFG/PRO Version: 7.4, 8.5, 8.6, 9.0, eB

Conversion Program: `tvmrp1.p`

Description

This post-processing conversion program initializes the `mrp_keyid` field in the `mrp_det` table and assigns one `mrp_det` record with a keyid value. The conversion allows the MRP detail records to be indexed. A test using a line of Progress code is required to test whether the conversion was successful:

```
if not can-find(first mrp_det where mrp_keyid = 0)
```

The conversion was successful if the code returns TRUE.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

Linked-Site Costing Conversion

MFG/PRO Version: 7.4, 8.5, 8.6, 9.0, eB

Conversion Program: `tv1sc91.p`

Description

This post-processing conversion program updates the inventory site in the `in_mstr` table from the inventory General Ledger cost site in the same table: `in_gl_cost_site = in_site`.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

User Master Conversion

MFG/PRO Version: 7.4, 8.5, 8.6, 9.0, eB

Conversion Program: `tvusr92.p`

Description

This post-processing conversion program initializes the User Type and Location fields in the user master table (`usr_mstr usr_type`). This update is required to enable new User Maintenance (36.3.18) features such as time zones, country codes, and locations. The Location field is initialized to Primary to support most licensing requirements.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

Sales Order Master Conversion

MFG/PRO Version: 7.4, 8.5, 8.6, 9.0, eB

Conversion Program: `tvusr92.p`

Description

This post-processing conversion program populates the `so_consignment` field in the sales order master table (`so_mstr`). Initial data values are obtained from the `so_conrep` field.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

EDI ECommerce Conversions

MFG/PRO Version: 8.6E, 9.0, eB

Conversion Program: tvecg92.p, tvecg92v.p, tvecg92e.p

Description

This is a set of three post-processing conversion programs. Only the first of these is required for version 8.6E. All three programs are required for versions 9.0 and eB.

- The ECommerce Turnaround Data Conversion populates the access and creation dates in the `edtar_mstr` table.
- The ECommerce Transformation Conversion creates `edtrv_mstr` entries for the `edtrv_var_name` field.
- The ECommerce Cross-Reference Conversion enables a logical field that records whether `edtmx_ref` records have been exported.

Following the first program, run the following code to test for successful completion:

```
if not can-find(first edtar_mstr where edtar_create_date
= ? or edtar_access_date = ?)
```

If this returns TRUE the conversion was successful.

Following the third program, run the following:

```
if not can-find(first edtmx_ref where edtmx_doc_in = no
and edtmx_export = no)
```

If this returns TRUE the conversion was successful.

Additional References

- Progress data loads: “Loading ECommerce Data” on page 71
- Oracle data loads: “Loading ECommerce Data” on page 79
- Target conversion: “Running Target Version Conversions” on page 93

Kanban 2 Conversion

MFG/PRO Version: eB

Conversion Program: `tvkb2.p`

Description

This post-processing conversion program realigns the Kanban master and detail records, moving data from the master to the detail tables and converting data from integer to decimal values for greater precision.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

Cumulative Shipping Reset

MFG/PRO Version: 8.5, 8.6, 9.0

Conversion Program: `tvcupcnv.p`

Description

This post-processing conversion program updates the `sod_cum_time` in the sales order detail table.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

Optional Application Conversions

The following programs are optional. You can select which of these programs to run during the automated conversion steps.

Fixed Assets Conversion

MFG/PRO Version: 7.4 through 9.0

Conversion Program: None

Description

Complete this conversion if you have implemented Fixed Assets in an earlier version. The fixed-assets conversion starts with answering MFG/CONV prompts during the source version dump setup. Then, during post-processing, you run the Fixed Assets Migration Utility (32.25.2) to migrate legacy data to the enhanced Fixed Assets module and to resolve discrepancies between legacy and new data.

▶ See Chapter 10, “Fixed Assets Conversion,” on page 179.

Additional References

- Source dump: “Fixed Assets Dump Name” on page 56
- Post-processing: Chapter 10, “Fixed Assets Conversion,” on page 179

Compliance

MFG/PRO Version: 7.4

Conversion Program: `tvvp2.p`

Description

This post-processing conversion program, also called Fix RCPT-STAT/W. Orders, is required only if you implement Compliance. The program moves fields from the QAD work table to new locations and creates the Compliance Control program (`clc_ctl`) if it does not exist. It also sets the Modify Co-products/By-products Receipt field and Modify Component Issue field to Yes. Finally, it sets the Lot Control Level field to zero, which permits duplicate lot/serial numbers. If you later change this setting to either 1 or 2 (indicating a level of uniqueness), you must run Lot Master Build (1.22.22) to update the lot master table.

▶ See *User Guide Volume 6: Master Files*.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

Co-products/By-products

MFG/PRO Version: 7.4

Conversion Program: `tv3.p`

Description

▶ See *User Guide Volume 3: Manufacturing*.

This conversion is required only if you implement Co-products/By-products. It consists of making some manual settings in the target database and then running a post-processing conversion program. The conversion program updates the Mix Variance account values for product lines and work orders. The conversion updates every product line that has a blank Mix Variance account with the default Mix Variance account from System/Account Control (36.1). For every work order with a blank Mix Variance account, the conversion locates its product line based upon the item number of the work order and updates the work order's Mix Variance account accordingly.

Additional References

- Target preparation: “Co-products/By-products Preparation” on page 88
- Target conversion: “Running Target Version Conversions” on page 93

Sales Order Price List Conversions

MFG/PRO Version: 7.4

Conversion Program: `tv4.p`, `tv5.p`

Description

▶ See *User Guide Volume 6: Master Data*.

There are two post-processing price list conversion programs. The first provides a bridge to support the pricing requirements of the new release until new price lists are developed. This conversion utility should be considered short term in its benefit. The greater, long-term benefit is to develop price lists based on the categorization of customers and items using the MFG/PRO analysis code functionality.

Note Converting price lists is not required; instead, you can develop new price lists after implementing your target version.

In order to minimize the number of new price lists created (in most cases, for every source version price list a target version price list is created), analysis codes for customers are created based on their relationship to source version price lists. Only price lists that are currently linked to customers or price lists without association to any customer or supplier are converted.

The second price list conversion utility creates price list history. For each sales order line and sales quote line, the utility creates a discount type price list record based on the difference between list price and net price.

Note As of Version 8.5, sales discount is posted to the general ledger from price list history when the source of the order is from the Sales Orders/Invoices module.

Additionally, the conversion sets the target version database elements in sales orders and sales quotes regarding pricing dates. These are set to order date or due date based on the current control settings for pricing by line item date.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93
- Post-processing: “Sales Order Price Lists Post-Conversion” on page 104

Bank Detail Conversion

MFG/PRO Version: 7.4

Conversion Program: `tvpr7.p`

Description

This post-processing conversion program populates the new customer/supplier bank detail (`csbd_det`) table from the previously used `qad_wkfl` tables.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

Field Service Conversion

MFG/PRO Version: 7.4

Conversion Program: `tv9.p`

Description

▶ See *User Guide Volume 8: Service/Support Management*.

This post-processing conversion program is required to convert an existing Field Service implementation to Service/Support Management (SSM). This program converts the service charge types in your source version into the new way they are defined in SSM. As prerequisites, you must:

- Complete the appropriate prompts in MFG/CONV regarding service charge types.
- Set up codes in your target version that the conversion program can use to map your service charge types into the new way they are defined in SSM.

The conversion can also update existing product lines with account numbers for the new service accounts and cost centers. As a prerequisite, you must define default service accounts in System/Account Control (36.1) in the target version database.

Additional References

- Source preparation: “Field Service Reports (7.4 only)” on page 29
- Source dump: “Service/Support Management Prompts” on page 60
- Target preparation: “SSM Preparation” on page 89
- Target conversion: “Running Target Version Conversions” on page 93

Evaluated Receipts Settlements Conversion

MFG/PRO Version: 7.4

Conversion Program: `tvers.p`

Description

This post-processing conversion program creates and modifies records to enable Evaluated Receipts Settlement (ERS). This program creates records for every site and supplier in the target version database. The conversion program sets the ERS option on all purchase orders to 1, signifying that ERS processing is not allowed.

▶ See *User Guide Volume 4A: Financials*.

Before you run the conversion, you must answer the following prompt under the MFG/CONV Initial menu:

```
ERS, enable POS?
```

If you answer Yes, the conversion for ERS modifies existing purchase order records to be enabled for the ERS feature. If you answer No, purchase orders are not enabled.

Additional References

- Source dump: “Evaluated Receipts Settlement Prompts” on page 60
- Target conversion: “Running Target Version Conversions” on page 93

Global Shipping Conversion

MFG/PRO Version: 7.4, 8.5

Conversion Program: tv86gs1.p

Description

This post-processing conversion program is required only if you implement Global Shipping. This conversion creates and assigns Number Range Management (NRM) sequences and document formats for new and existing shipping documents, and company address records for existing shipping site records, among other changes.

▶ See *User Guide Volume 2A: Distribution*.

Additional References

- Source preparation: “Global Shipping Conversion” on page 31
- Source dump: “Global Shipping Prompts” on page 59
- Target preparation: “Global Shipping Preparation” on page 92
- Target conversion: “Running Target Version Conversions” on page 93
- Post-processing: “Global Shipping Post-Conversion” on page 101

Product Change Control Conversion

MFG/PRO Version: 7.4, 8.5

Conversion Program: `tvppcc0.p`

Description

▶ See *User Guide Volume 6: Master Data*.

This post-processing conversion program is required if you implement the Product Change Control module. The PCC conversion moves Engineering Change Order (ECO) data to new locations within the database. The data itself remains the same; only the location changes.

Additional References

- Source preparation: “Product Change Control Conversion” on page 31
- Target conversion: “Running Target Version Conversions” on page 93
- Post-processing: “Product Change Control (PCC) Post-Conversion” on page 105

Supplier Performance Conversion

MFG/PRO Version: 8.6

Conversion Program: `tvpsite.p`

Description

▶ See *User Guide Volume 11: PRO/PLUS*.

This post-processing conversion program is required only if you installed the PRO/PLUS Supplier Performance module in version 8.6. PRO/PLUS is a package of automotive industry functionality.

The conversion program includes site in the primary indexes of the performance data master (v`ep_mstr`) and summary data master (v`es_mstr`) as well as in the linked detail records, performance data detail (v`epd_det`) and summary data detail (v`esd_det`).

Additional References

- Source preparation: “Supplier Performance Conversion” on page 32
- Target conversion: “Running Target Version Conversions” on page 93
- Post-processing: “Supplier Performance Post-Conversion” on page 106

EDI ECommerce Data Conversion

MFG/PRO Version: 7.4, 8.5, 8.6, 9.0

Conversion Program: tvecg.p

Description

This post-processing conversion program is required only if you plan to use the EDI ECommerce capabilities. This conversion sets the MFG/PRO sales order invoice and advance ship notice (ASN) export fields so that legacy records are marked as exported documents and will not be considered when creating new export documents. Additionally, it populates the necessary fields and sets trading partner parameters in the appropriate database tables to enable EDI ECommerce functionality.

▶ See *User Guide Volume 7: Release Management*.

Additional References

- Progress data loads: “Loading ECommerce Data” on page 71
- Oracle data loads: “Loading ECommerce Data” on page 79
- Target conversion: “Running Target Version Conversions” on page 93

Globalization Conversion

MFG/PRO Version: 7.4, 8.5, 8.6, 9.0

Conversion Program: `tvgl091.p`

Description

▶ See *User Guide Volume 4A: Financials*.

This post-processing conversion program is required to use financial enhancements in MFG/PRO. The program converts the setting of Summarized Journal field (`arc_gl_sum` and `apc_gl_sum`) in the accounts receivable (`arc_ctrl`) and accounts payable (`apc_ctrl`) control tables to the new Summarization Level (`arc_sum_lvl` and `apc_sum_lvl`) fields in `arc_ctrl` and `apc_ctrl`.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93

Global Tax Management Conversion

MFG/PRO Version: 7.4, 8.5, 8.6–8.6D

Conversion Program: `tvgtm.p`

Description

▶ See *User Guide Volume 6: Master Data*.

A post-processing conversion program is required for the Tax Compliance feature if Global Tax Management (GTM) was used prior to conversion. It is not required if you are converting from MFG/PRO Version 8.6E or later. This conversion moves fields in tables `txc_ctrl`, `tx2_mstr`, and `tx2d_det` so that future maintenance is easier.

Additional References

- Target conversion: “Running Target Version Conversions” on page 93
- Post-processing: Chapter 9, “GTM Conversions,” on page 111

Note If you are not using any tax method in your source database, some data must be updated in the source version prior to the conversion. See:

- Source preparation: “Global Tax Management Conversion (7.4 through eB)” on page 29

European Accounting Conversion

MFG/PRO Version: 7.4, 8.5, 8.6, 9.0, eB

Conversion Program: None

Description

If European Accounting (EA) is implemented in your source version, copy the EA conversion routines to the *TVInstallDir/lang/src* and *TVInstallDir/lang/xrc* directories.

For Oracle databases, the subsequent standard dumps and loads then accommodate the EA data. For Progress databases where the EA database is implemented as a separate database, two runs through the MFG/CONV utility are required; the first to dump the EA data, the second to dump the standard *qaddb* data.

Both Oracle and Progress source databases then require a special source version dump routine.

Additional References

- Source preparation: “Euro Data Conversion” on page 32
- Source dump: “European Accounting Steps” on page 54
- Source dump: “Source Database Setup” on page 56
- Post-processing: “European Accounting Preparation” on page 92

Flow Scheduling

MFG/PRO Version: 9.0 and eB

Conversion Program: None

Description

Flow scheduling generates time-phased, sequenced statements of production requirements for production lines in a flow manufacturing environment. Conversion requires a modification of target data.

Additional References

- Target preparation: “Flow Scheduling Preparation” on page 92

Forecast Simulation Conversion

MFG/PRO Version: 7.4–eB (Oracle)

Conversion Program: None

Description

This post-processing utility supports a new selection criteria default format for forecast simulation functions in eB2.

Additional References

- Post-processing: “Forecast Simulation Conversion (7.4 to eB, Oracle only)” on page 100

Preparing Source Data

Use this chapter to prepare your MFG/PRO 7.3 through eB Oracle or Progress source version databases for conversion.

Preparing the Source Version Database **28**

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Preparing the Source Version Database

The steps in this section determine the duration and effectiveness of your database conversion. Each task is aimed at reducing conversion time, saving crucial data, or providing validation references of your pre-conversion environment.

General Preparations

Use this section to perform preliminary data preparation in your source version environment.

- 1 Post and close as many financial transactions as possible.
- 2 Archive and delete as much data as possible from your source version environment, using the various delete/archive programs throughout MFG/PRO. Archive and delete records as of a recent fiscal year-end in order to maintain the accuracy of historical, year-to-date balances. The more data you archive and delete before starting, the shorter the conversion time.

Note If you want to restore any archived data, you must restore it to the former version and convert it before you can use it. This is made difficult if you upgrade your operating system during the conversion.

- 3 Back up your source version databases and MFG/PRO directory. This helps you recover should there be a problem during the conversion.

Version-Specific Preparations

Each category in the following section includes the MFG/PRO versions to which it applies. Lettered releases are listed where necessary.

Blank Sites (7.4 only)

After version 7.4, blank sites are not allowed. Prior to starting a conversion, either delete or enter a name for the blank site in your database if one exists.

Currency Conversion (7.4 only)

If you are converting from MFG/PRO 7.4 with Global Tax Management (GTM) or the GL Report Writer, run Rounding Method Report (2.13.1.19). After the conversion, use this report to enter rounding methods in your target version environment.

Global Tax Management Conversion (7.4 through eB)

This step is required only if you have no taxes implemented in your source version and are converting to GTM in the target database. Make sure the Country field is not blank in the source database in the following programs:

- Customer Maintenance (2.1.1)
- Supplier Maintenance (2.3.1)
- Company Address Maintenance (2.12)

Field Service Reports (7.4 only)

Complete the following steps only if you are converting Field Service. If you are converting from MFG/PRO 8.5 or higher, skip this section.

- 1 Run `svfscon1` to obtain a report showing potential error conditions related to contract coverage. Enter a range of contract numbers in the Number and To fields.

Important Do not run `svfscon2` yet because it updates data in the source version database.

- 2 Run `svfscon3` to obtain a report showing any existing lot/serial-controlled items with blank lot/serial numbers.
- 3 Review the output of `svfscon1` and `svfscon3` using the View Reports option. If any items appear on either report, exit MFG/CONV and print them for further review. The output files are `fscon1.log` and `fscon3.log`.

Tip

Blanket contracts were not supported before MFG/PRO 8.5, but the data element used to designate a blanket contract (`sa_blanket`) does exist in MFG/PRO 7.3 and 7.4 schema.

- 4 Review `fscon1.log` and determine if there are contract lines intended to cover every item for the associated end user. If so, this is considered a blanket contract. When you restart MFG/CONV, run the utility `svfscon2.p` to set `sa_blanket` to Yes for those contracts providing blanket coverage.

In the Contract/Quote field that displays in the utility, enter the contract number that has a missing lot/serial number, as reported on `fscon1.log`.

Note If the blanket contract condition does not apply to all lines on a contract, you should close the line items for specific item/serial numbers by adjusting contract line end dates in your target version environment after the conversion. Once you have done this, you can create new contracts for those specific items.

- 5 For all other changes required for `fscon1.log` and `fscon3.log`, see “SSM Post-Conversion” on page 102.

Service/Support Management Conversion (7.4 only)

This is a continuation of field service reports. You use those reports when converting from Field Service to SSM:

- 1 Close as many calls as possible and delete/archive them.
- 2 You must archive and delete any closed calls previously moved to history. If you do not, `itm_det` records are orphaned in the target database and cause an error when you attempt to move installed items using Installed Item Move (11.3.13).
- 3 Close as many return material authorizations (RMAs) as possible.
- 4 Perform a delete/archive for fully billed, expired contracts and contract quotes.
- 5 Print and post all open invoices for contracts and RMAs.

This action is especially critical for RMAs, because in SSM, RMAs do not include labor and expenses. Printing and posting the invoices clears any existing labor and expense items you have already recorded.

Global Shipping Conversion

Follow these steps if you plan to implement global shipping features.

- 1 Convert as many pre-shippers to shippers as possible.
- 2 Confirm as many sales order (SO) shippers as possible.
- 3 Delete as many master bills of lading as possible.
- 4 Archive and delete as many SO shippers as possible.
- 5 Use Pre-Shipper/Shipper Inquiry (7.11.7) and Master Bill of Lading Inquiry (7.11.14) to review existing records. Determine which of the remaining pre-shippers, shippers, and master bills of lading can be renumbered and which must retain current ID numbers due to legal requirements or the usage of shipper numbers as invoice numbers.
- 6 Run Address List Type Browse (2.10) for an existing *carrier* list type. If one exists, verify that the addresses assigned the existing carrier list type are addresses you want to retain in the target database. If you do not want the carrier addresses converted, change the existing carrier list type in the conversion program prompts for Global Shipping.

Product Change Control Conversion

Complete this section if you plan to implement Product Change Control (PCC). Close as many Engineering Change Notices (ECNs) that have been routed for approval as possible. Complete the approval processes before converting the records if possible.

Corporate Commodity Codes Conversion

If you implemented Corporate Commodity Codes, run Commodity Code Maintenance (1.4.19 in Version 7.4; 1.11 in Version 8.5) and review the commodity codes and parts. After conversion, use the source version data to verify target version data (1.4.19 in eB2).

Euro Data Conversion

Post all transactions involving foreign currencies.

Supplier Performance Conversion

Follow these steps if you are converting from MFG/PRO Version 8.6D with the PRO/PLUS Supplier Performance module.

- 1 Run Supplier Performance Data Report (5.15.14). Include inventory, subcontract, and memo items. Note the number of detail records for each master record. After converting, compare the relationship of detail records to master records to ensure data accuracy.
- 2 Run Summary Data Report (5.15.20). Select reporting option 2 to display category and event data. Note the number of detail records for each master record. After converting, compare the relationship of detail records to master records to ensure data accuracy.

Running Data Verification Programs

Print the reports or review the data from the programs in Table 2.1 as an audit of the conversion. Print or run them first from your source version instance. When you finish the conversion, print or run these same reports and programs from your target version instance and compare the two sets.

Note Some of the programs have different menu locations in the source and target environments. The programs can also be run by entering the program name on the MFG/PRO command line.

Table 2.1
Data Verification
Programs

Program Name	Source Version Menu Numbers	eB2 Menu Number
Site Report (icsirp.p)	1.1.15	1.1.15
Item Planning Report (ppptrp12.p)	1.5.4	1.5.4
Item-Site Planning Report (pppsrp12.p)	1.5.16	1.5.16
Stock Status Report (ppptrp01.p)	1.5.8	1.5.8

Table 2.1 — Data Verification Programs — (Page 1 of 3)

Program Name	Source Version Menu Numbers	eB2 Menu Number
Inventory Valuation Report (ppptrp03.p)	1.5.21	1.5.21
ECN Status Inquiry (ecapstiq.p)	1.9.6	1.9.9.1 (ececrc.p)
Price List Report (pppirp01.p)	7.3/7.4: 1.10.3 8.5 – 9.0: 1.10.1.3 and 1.10.2.3	1.10.1.3 and 1.10.2.3
Customer Master Report (adcsrp01.p)	2.1.4	2.1.4
Customer Ship-to Address (adcsrp02.p)	2.1.15	2.1.15
Supplier Master Report (advnrp01.p)	2.3.4	2.3.4
Employee Browse (ademiq.p.p)	7.3/7.4: 2.7.4 8.5 – 9.0: 2.7.2	2.7.4 (ademrp.p)
Customer/Supplier Bank Report (adcsbkp.p)	7.3/7.4: 2.4.3 8.5 – 9.0: 2.21.3	2.21.3
Salesperson Commission Report (adsprp01.p)	2.5.13	2.5.13
US Sales Tax (sotaxcrp.p)	7.3/7.4: 2.14.3 8.5 – 9.0: 2.15.1.3	2.13.15.3 (txtx2drp.p) Note: US Sales Tax Report is not in eB2. Convert to Global Tax Management (GTM). Tax Detail by Transaction Report (2.13.15.3) provides similar information in the target version.
VAT-AR by Transaction (vtarrp.p)	7.3/7.4: 2.15.13 8.5 – 9.0: 2.15.2.13	2.13.15.13 (txarrp.p) Note: VAT-AR by Transaction Report is not in eB2. Convert to GTM. The AR Tax by Transaction Report (2.13.15.13) provides similar information in the target version.

Table 2.1 — Data Verification Programs — (Page 2 of 3)

Program Name	Source Version Menu Numbers	eB2 Menu Number
VAT-AP by Transaction (vtaprp.p)	7.3/7.4: 2.15.16 8.5 – 9.0: 2.15.2.16	2.13.15.16 (txaprp.p) Note: VAT-AP by Transaction Report is not in eB2. Convert to GTM. AP Tax by Transaction Report (2.13.15.16) provides similar information in the target version.
GST-AR by Transaction (ctarrp.p)	7.3/7.4: 2.16.13 8.5 – 9.0: 2.15.3.13	2.13.15.13 (txarrp.p) See VAT-AR by Transaction.
GST-AP by Transaction (ctaprp.p)	7.3/7.4: 2.16.16 8.5 – 9.0: 2.15.3.16	2.13.15.16 (txaprp.p) See VAT-AP by Transaction
Purchase Order Transactions (poporp04.p)	5.9.14	5.9.14
Blanket Order by Order (poblrp.p)	5.3.3	5.3.3
Sales Quote by Quote (sqqorp.p)	6.13	7.12.13
Sales Orders by Customer (sosorp01.p)	7.3.2	7.15.2
Req. Ship Schedule Summary (rcrp07.p)	7.6.5.1	7.15.13
Orders in Transit (dsdmp03.p)	12.15.14	12.15.14
Distribution Order (dsdorp.p)	12.17.16	12.17.16
Commodity Code Maintenance (ppcommt.p)	1.4.19 (7.4) 1.11 (8.5)	1.4.19

Table 2.1 — Data Verification Programs — (Page 3 of 3)

Preserving Custom System Data

Complete this section if you have made any customizations to the following MFG/PRO default data:

- Online help
- Custom menus and messages
- Custom labels (eB conversions only)

If you have not made customizations, skip this section.

After dumping your custom data and completing your conversion, use the instructions in “Restoring Custom Default Data” on page 106 to incorporate your customizations in your target version environment.

Menus, Messages and Labels

MFG/CONV does not convert custom changes to this data. However, you can generate reports that display all the custom changes you have made so that you can reenter them.

Running Custom Data Reports

Several reports are available to assist with conversions for:

- Custom menus and messages
- Field Service

All of the reports are located on the MFG/CONV Reports menu.

Custom Menus and Messages Reports

Preliminary Preparations

Prior to running the menu data and message data reports, you must perform two operating system copies as follows:

```
cd MFGPROInstallDir/us/mfg  
cp * MFGPROInstallDir/mfg
```

And

```
cd MFGPROInstallDir/us/admin
```

```
cp * MFGPROInstallDir/mfg
```

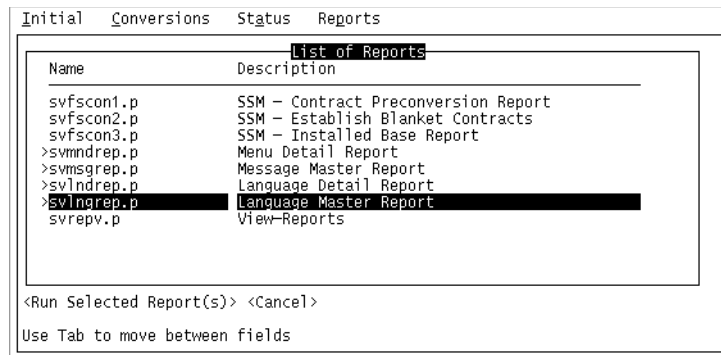
The location of these data files was changed; however, the reports were not updated to reflect this change.

Running Reports

- 1 From MFG/CONV, choose the Reports menu.
- 2 If you have custom changes to menus, messages, or other system data, select the appropriate reports from the List of Reports screen.

These reports compare the system data in the source and target version databases. Later, you can use these reports to look for any custom changes you made that you want to reenter.

- Custom menu data: svmndrep
- Custom message data: svmsgrep
- Custom language detail: svlndrep
- Custom language master data: svlngrep



- 3 Once you select the reports you want to run, choose Run Selected Report(s). The MFG/CONV screen displays as the reports run.

The reports run to the *TVInstallDir* and are named like the source programs that created them (*svmndrep.rep*). No output files are created for reports with no data.

- 4 When the reports finish, choose the Reports menu.

- 5 In the List of Reports screen, deselect the reports you previously selected and select View-Reports. When ready, choose Run Selected Report(s).

Initial Conversions Status Reports

List of Reports

Name	Description
svfscon1.p	SSM - Contract Preconversion Report
svfscon2.p	SSM - Establish Blanket Contracts
svfscon3.p	SSM - Installed Base Report
svmdndrep.p	Menu Detail Report
svmsgrep.p	Message Master Report
svlndrep.p	Language Detail Report
svlngrep.p	Language Master Report
>svrepv.p	View-Reports

<Run Selected Report(s)> <Cancel>

Use Tab to move between fields

- 6 Select the report you want to view first in the Choose a Report to View screen. You can only view one report at a time. Choose View Selected Report Output to view and print the report.

Choose a Report to View

()svfscon1
()svfscon3
(X)svmdndrep
()svmsgrep
()svlngrep
()svlndrep

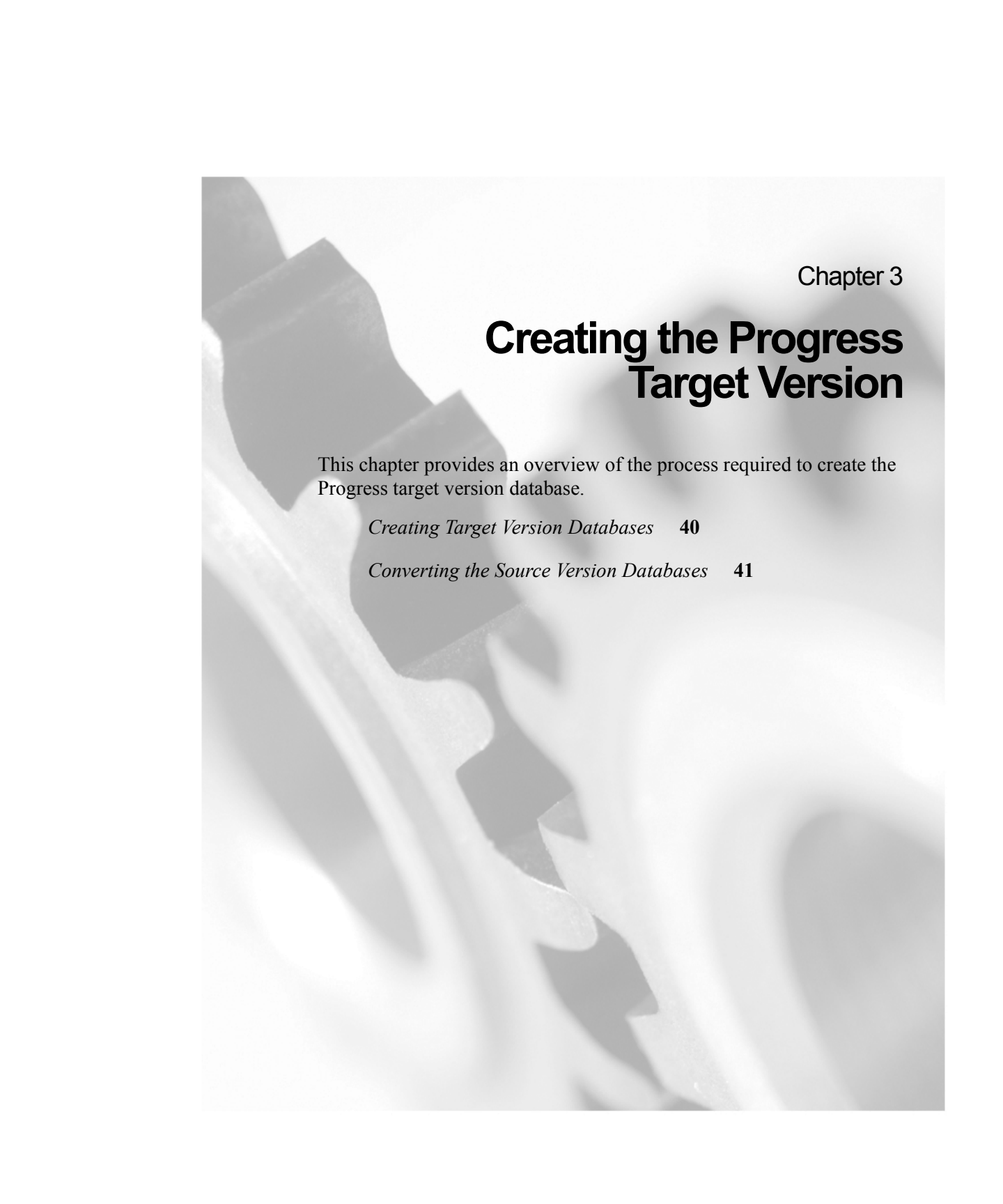
<View Selected Report Output>
<Quit>

Space to select a report
Tab to button, then press Enter

Next Steps

If you are completing a Progress conversion, go to Chapter 3, “Creating the Progress Target Version,” on page 39.

For Oracle conversions, go to Chapter 4, “Creating the Oracle Target Version,” on page 47.



Chapter 3

Creating the Progress Target Version

This chapter provides an overview of the process required to create the Progress target version database.

Creating Target Version Databases **40**

Converting the Source Version Databases **41**

Creating Target Version Databases

This section provides guidelines on setting up the target version databases you will need for your conversion. Use these guidelines in conjunction with the instructions in the *MFG/PRO eB2 Installation Guide: Progress Database* to install and configure the target version MFG/PRO environment.

Important You may need to perform an operating system upgrade before you perform these steps.

- 1 Install the target version Progress software.
- 2 Install and configure the database server and at least one character client using the instructions in Chapters 3 and 4 of the installation guide. However, note the following differences between configuring an initial installation and configuring a target version environment for a conversion:
 - When assigning extent sizes for the MFG/PRO databases, be sure to consider the size of the tables in your source version databases.
 - Build production and admin databases, but *do not* load any default system data.
 - For the help database, you can load the data files in the `mfgghelp` subdirectory to implement the system source code cross-reference feature.

Important These files are for system cross-reference data only and do not contain the MFG/PRO field and procedure help. The field and procedure help records are loaded in the post-conversion steps.

- Configure a database set containing the empty target version production, admin, and help databases. Generate server and client scripts for this database set.
 - If applicable, load the service pack media before you use the MFG/PRO conversion utility, MFG/CONV. The service pack may contain updated conversion programs for MFG/CONV.
- 3 Record the locations of your target version databases and the directory where you installed the target version database server files.

Important The instructions in this chapter refer to this directory as the target version installation directory, *TVInstallDir*.

Converting the Source Version Databases

To convert the source version database, you migrate your source version database.

Preliminary Requirements

The following steps assume that:

- You have installed Progress Version 9.1D+. The software must include at least one Progress 4GL license.
- No other users are logged onto the source version instance.
- Your environment variables are set as follows:
 - DLC is set to the target version Progress directory.

Migrating the Source Version Databases

Before beginning the source version conversion, you must migrate your source version databases to Progress 9.1. The following section contains instructions on migrating your databases.

The following instructions assume that:

- Progress 9.1D+ is installed including at least one 4GL license.
- You have Progress software that corresponds to your source version database.
- You have archived and deleted data from your source version databases and have made backup copies.
- No other users are logged onto the source version databases and you have shut down the database servers. All of the migration tasks must be performed in single-user mode.

Be sure all users are off the system and kept off. For example, you can block access to the startup scripts using the `chmod 700` command.

Progress 6 Source Version Databases

If you are converting Progress Version 6 databases:

- 1 Using Progress Version 6 database administration utilities, truncate the before-image files (extension `.bi`) of your source databases.
- 2 Change to the Progress Version 9.1 `bin/83dbutils` directory.
- 3 Use the following command to run the `83conv68` utility. This utility migrates your source version databases to Progress Version 8:

```
83conv68 PathToDatabase/DatabaseName
```

Example To migrate production, gui, and cfg source version databases, run the `83conv68` utility for each database:

```
83conv68 SVInstallDir/mfgprod.db
```

```
83conv68 SVInstallDir/gui.db
```

```
83conv68 SVInstallDir/cfg.db
```

- 4 Use the following command to run the `83makemultiv` utility. This utility converts a single-volume database to the multi-volume structure used in Progress Version 9.1:

```
83makemultiv PathToDatabase/DatabaseName
```

Example To convert single-volume production, gui, and cfg source version databases, run the `83makemultiv` utility for each database:

```
83makemultiv SVInstallDir/mfgprod.db
```

```
83makemultiv SVInstallDir/gui.db
```

```
83makemultiv SVInstallDir/cfg.db
```

- 5 Use the following command to run the `83truncatebi` utility. This utility truncates the before-image file of your source version databases.

You must truncate the before-image file again because information was recorded in this file when you converted your single-volume source version databases to the multi-volume structure:

```
83truncatebi PathToDatabase/DatabaseName
```

Example To truncate the before-image file for the production, gui, and cfg source version databases, run the `83truncatebi` utility for each database:

```
83truncatebi SVInstallDir/mfgprod.db
83truncatebi SVInstallDir/gui.db
83truncatebi SVInstallDir/cfg.db
```

- 6 Use the following command to run the `conv89` utility. This utility migrates a Progress Version 8 multi-volume database to Progress Version 9.1:

```
proutil PathToDatabase/DatabaseName -C conv89
```

Example To migrate production, gui, and cfg source databases to Progress Version 9.1, run the `conv89` utility for each database:

```
proutil mfgprod.db -C conv89
proutil gui.db -C conv89
proutil cfg.db -C conv89
```

Progress 7 Source Version Databases

If you are converting Progress Version 7 databases:

- 1 Using Progress Version 7 database administration utilities, truncate the before-image files (extension `.bi`) of your source databases.
- 2 Change directories to the Progress Version 9.1 `bin/83dbutils` subdirectory.
- 3 Use the following command to run the `83conv78` utility. This utility migrates your source version databases to Progress Version 8:

```
83conv78 PathToDatabase/DatabaseName
```

Example To migrate production, gui, and cfg source version databases, run the `83conv68` utility for each database:

```
83conv78 SVInstallDir/mfgprod.db
83conv78 SVInstallDir/gui.db
83conv78 SVInstallDir/cfg.db
```

- 4 Run the `83makemultiv` utility. This utility converts a single-volume database to the multi-volume structure used in Progress Version 9.1:

```
83makemultiv PathToDatabase/DatabaseName
```

Example To convert single-volume production, gui, and cfg source version databases, run the `83makemultiv` utility for each database:

```
83makemultiv SVInstallDir/mfgprod.db
```

```
83makemultiv SVInstallDir/gui.db
```

```
83makemultiv SVInstallDir/cfg.db
```

- 5 Run the `83truncatebi` utility. This utility truncates the before-image file of your source version databases.

You must truncate the before-image file again because information was recorded in this file when you converted your single-volume source version databases to the multi-volume structure.

```
83truncatebi PathToDatabase/DatabaseName
```

Example To truncate the before-image file for the production, gui, and cfg source version databases, run the `83truncatebi` utility for each database:

```
83truncatebi SVInstallDir/mfgprod.db
```

```
83truncatebi SVInstallDir/gui.db
```

```
83truncatebi SVInstallDir/cfg.db
```

- 6 Run the `conv89` utility. This utility migrates a Progress Version 8 multi-volume database to Progress Version 9.1:

```
proutil PathToDatabase/DatabaseName -C conv89
```

Example To migrate production, gui, and cfg source version databases to Progress Version 9, run the `conv89` utility for each database:

```
proutil mfgprod.db -C conv89
```

```
proutil gui.db -C conv89
```

```
proutil cfg.db -C conv89
```

Progress 8 Source Version Databases

If you are converting Progress Version 8 databases:

- 1 Change directories to the `/bin` subdirectory below the Progress Version 8 installation directory.
- 2 Use the following command to run the `convert` utility. This utility converts a single-volume database to the multi-volume structure used in Progress Version 9.1:

```
prostrct convert PathToDatabase/DatabaseName
```

Example To convert single-volume production, gui, and cfg source version databases, run the `convert` utility for each database:

```
prostrct convert SVInstallDir/mfgprod.db
```

```
prostrct convert SVInstallDir/gui.db
```

```
prostrct convert SVInstallDir/cfg.db
```

- 3 Run the `truncatebi` utility to truncate the before-image file:

```
proutil PathToDatabase/DatabaseName truncatebi
```

Example To truncate the before-image file for production, gui, and cfg source databases, run `83truncatebi` for each database:

```
proutil SVInstallDir/mfgprod.db truncatebi
```

```
proutil SVInstallDir/gui.db truncatebi
```

```
proutil SVInstallDir/cfg.db truncatebi
```

- 4 Change to the `/bin` directory below the Progress 9.1 install directory:

```
cd Progress9InstallDir/bin
```

- 5 Run the `conv89` utility. This utility migrates a Progress Version 8 multi-volume database to Progress Version 9.1. This migration combines all the formerly separate databases into a single volume:

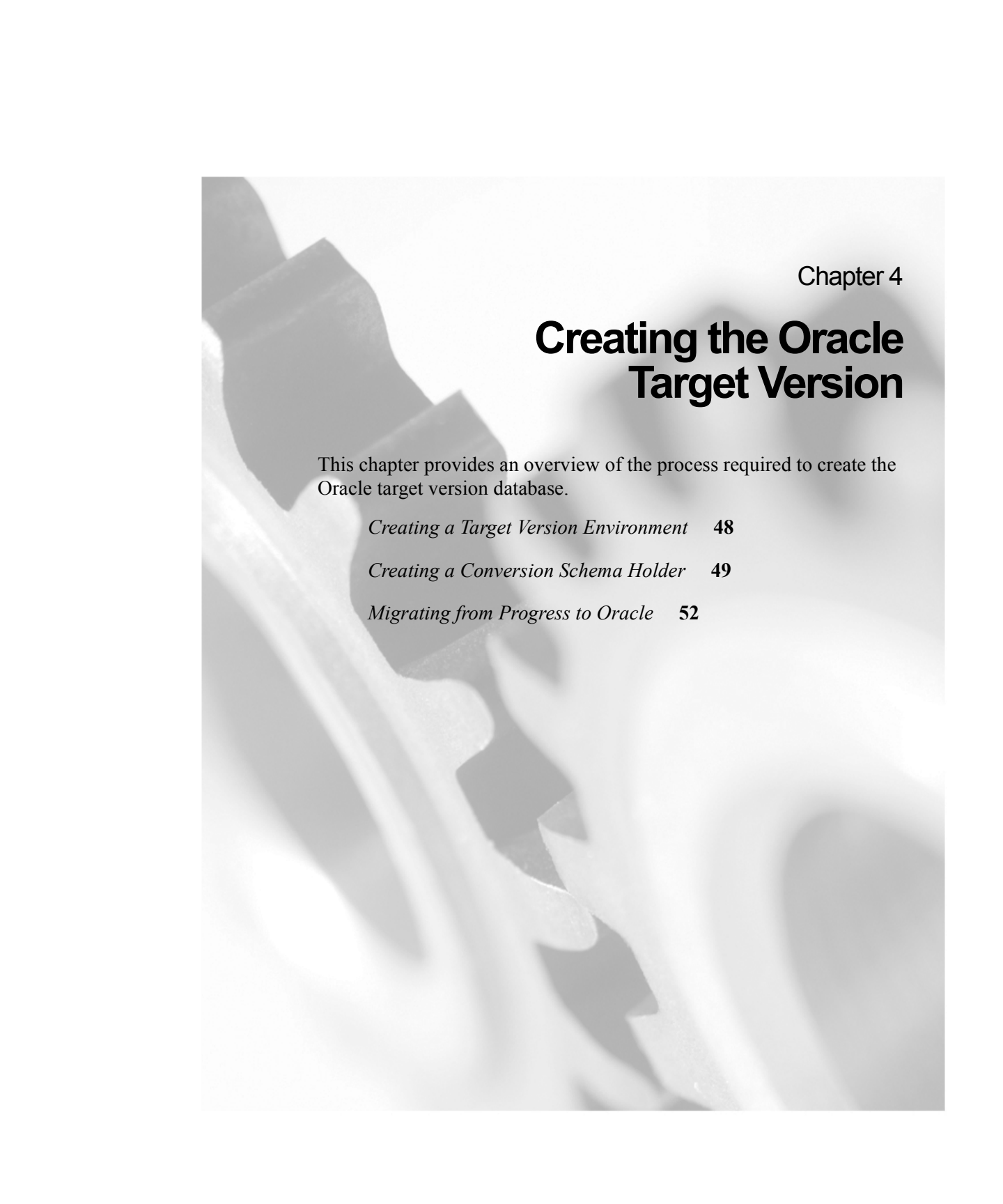
```
proutil PathToDatabase/DatabaseName -C conv89
```

Example To migrate production, gui, and cfg source version databases to Progress Version 9, run the `conv89` utility for each database:

```
proutil mfgprod.db -C conv89
```

```
proutil gui.db -C conv89
```

```
proutil cfg.db -C conv89
```


The background of the page is a grayscale image of several interlocking gears. The gears are of different sizes and are positioned in a way that they appear to be meshing together. The lighting is soft, creating a sense of depth and texture. The gears are the primary visual element, filling the entire background.

Chapter 4

Creating the Oracle Target Version

This chapter provides an overview of the process required to create the Oracle target version database.

Creating a Target Version Environment **48**

Creating a Conversion Schema Holder **49**

Migrating from Progress to Oracle **52**

Creating a Target Version Environment

This section provides guidelines on setting up the target version databases you will need for your conversion. Use these guidelines in conjunction with the instructions in the *MFG/PRO eB2 Installation Guide: Oracle Database* to install and configure the target version MFG/PRO environment.

Important You may need to perform an operating system upgrade before you perform these steps.

- 1 Install the target version Progress software.
- 2 Install the target version Oracle software.
- 3 Install and configure the database server. Note the following differences between configuring an initial installation and configuring a target version environment for a conversion.
 - When assigning tablespace sizes for the Oracle database, consider the size of the tables in your source version instance.
 - Build the target version Oracle database, but *do not* load the default system data or build indexes.
 - If applicable, load the service pack media before you use the MFG/PRO conversion utility, MFG/CONV. The service pack may contain updated programs for MFG/CONV.
- 4 Install and configure at least one character client.
 - Configure a database set containing the target version schema holder and database and generate a client startup script for this database set.
- 5 Record the locations of your target version schema holder and database as well as the directory in which you installed the target version database server files. The instructions in this chapter refer to this directory as the target version installation directory (*TVInstallDir*). The installation guide refers to the same directory as *MFGPROInstallDir*.

Creating a Conversion Schema Holder

To convert the source version database, you create a target version schema holder and load your source version schema into it. This allows MFG/CONV to manipulate the source schema to target specifications.

Preliminary Requirements

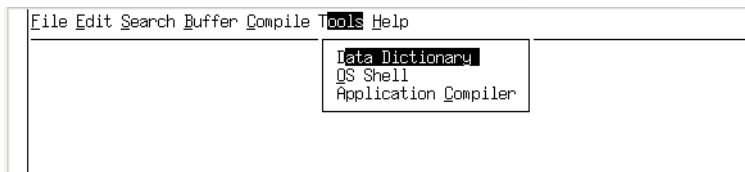
The following steps assume that:

- You have installed Progress Version 9.1D+. The software must include at least one Progress 4GL license.
- No other users are logged onto the source version instance.
- Your environment variables are set as follows:
 - DLC is set to the target version Progress directory.
 - ORACLE_HOME is set to the target Oracle directory (8.1.7).

Dump Source Schema

- 1 Log in as mfg (or the owner of the source schema holder).
- 2 Move to the /db directory under the source version installation directory.
- 3 Connect to the source version schema holder:


```
$DLC/bin/_progres -1 SourceSchemaHolder
```
- 4 The Progress Editor starts. Access the menus (F3 or Esc-M) and select Tools|Data Dictionary.



- 5 In the Data Dictionary, select Database|Select Working Database. The schema holder is the current working database. The source Oracle database is the one required for the schema dump. Select it and choose OK.

Database Schema Admin DataServer Utilities PRO/SQL Tools				
Select Working Database				
Logical DBName	Physical DBName	DB Type	Schema Holder	Con
david85hold	david85hold	PROGRESS	david85hold	yes
david85	?	ORACLE	david85hold	no

- 6 When the Connect Database screen appears, enter the user ID `gad` and the password `gad`. Choose OK.

Database Schema Admin DataServer Utilities PRO/SQL Tools	
Connect Database	
Physical Name:	< Files... >
Logical Name:	david85
Database Type:	ORACLE [X]Multiple Users
User ID:	gad
Password:	
Trigger Location:	< Files... >
Parameter File:	< Files... >
Other CONNECT Statement Parameters:	
OK Cancel	

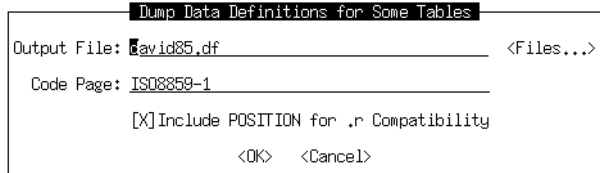
Select Working Database	Data Dictionary
Database: david85 (oracle)	Table:

- 7 When you confirm the connection, you return to the Data Dictionary. Select Admin|Dump Data and Definitions; from the submenu, select Data Definitions.
- 8 A list of MFG/PRO tables displays. Select all tables by pressing and holding Enter until it reaches the bottom of the list.

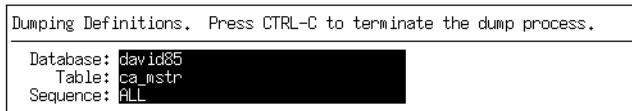
Database Schema Admin DataServer Utilities PRO/SQL Tools	
Select tables with the [RETURN] key. Press [PF1] when done. Press [ESC-O]/[ESC-S] to select/de by pattern. Press the [F7] key to show/hide hidden files.	
* wod_det * wo_mstr * wr_route * xd_mstr * xf_mstr * xmi_mstr * xm_mstr * xpi_mstr * xp_mstr * utd_det	

Data Definitions (.df file)	Data Dictionary
Database: david85 (ORACLE)	Table:

- 9 Press F1 or Ctrl-X to initiate the dump. Specify the output file location in the dialog that displays.



- 10 Choose OK. An output screen displays.



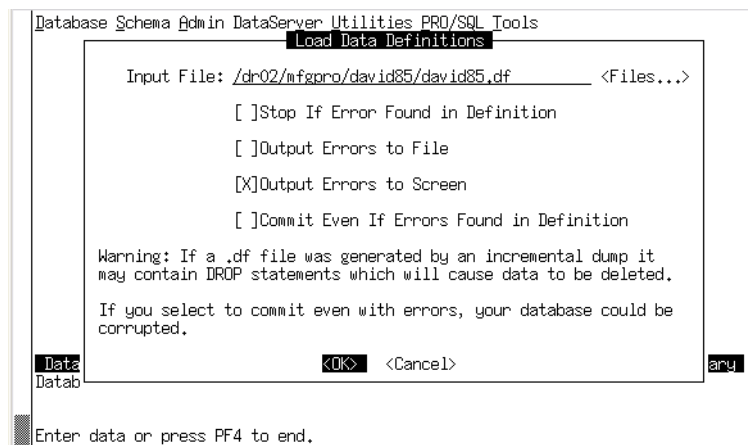
- 11 When the dump is completed, choose OK. Then exit the Data Dictionary and the Progress Editor.

Create the Conversion Schema Holder

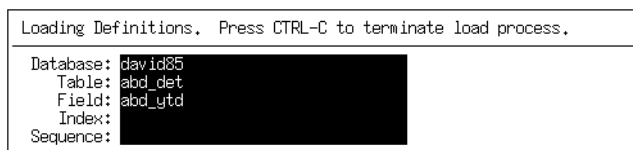
- 1 Log in as mfg (or the owner of the source schema holder).
- 2 Move to the `TVInstallDir/db` directory.
- 3 Create a target version Progress schema holder:

```
$DLC/bin/procoppy $DLC/empty TargetSchemaHolder
```
- 4 Connect to the target schema holder in the Progress data dictionary:

```
$DLC/bin/_progres -1 TargetSchemaHolder
```
- 5 From the Data Dictionary, select Admin|Load Data and Definitions and from the submenu, select Data Definitions.
- 6 In the dialog that displays, enter the full path to the source schema file created in the previous section.



- 7 Choose OK to start the load. The load processing screen displays.



- 8 When the load is complete, choose OK. Exit from the Data Dictionary and the Progress Editor.

Migrating from Progress to Oracle

If you are converting from a Progress database to an Oracle database, follow the instructions for your Progress database under “Migrating the Source Version Databases” on page 41.

Dumping Source Data

This chapter covers the steps to dump source version data from either a Progress or Oracle database.

European Accounting Steps **54**

Setting Up MFG/CONV **54**

Dumping Data **62**

Additional MFG/CONV Menu Options **67**

Next Steps **67**

European Accounting Steps

European Accounting (EA) requires that you copy the EA conversion routine source code files into the *TVInstallDir/conv* directory.

◆ Special EA dumps are described in “Source Database Setup” on page 56.

If EA is implemented as part of a standard *qaddb* (as for an Oracle implementation), then no additional steps are required. If EA was implemented as a separate database (as for Progress), then an additional step is required during the data dumps.

Setting Up MFG/CONV

In this section, you launch MFG/CONV and answer several prompts. You then run the source version conversion programs and dump your source version data.

◆ Menu options not covered in this section are described in “Additional MFG/CONV Menu Options” on page 67.

MFG/CONV is launched from within MFG/UTIL. The first time through, it steps you through environment setup screens for the source and target databases. If you exit and restart, you must access these functions from the menus. Menu locations are listed in the appropriate steps.

Setting Environment Values

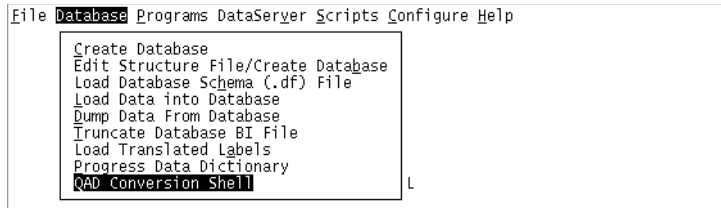
Use the following instructions to answer the MFG/CONV conversion environment prompts:

- Make sure the *ORACLE_SID* and *ORACLE_HOME* environment variables are set to your source database values.
 - Make sure the *PATH* variable contains the Progress 9.1 installation and bin directories, not the source Progress directories.
- 1 Log on as *mfg*.
 - 2 Change directories to *TVInstallDir* and start MFG/UTIL:

```
cd TVInstallDir
./mfgutil
```

In Windows, launch MFG/UTIL from the Start|Programs menu.

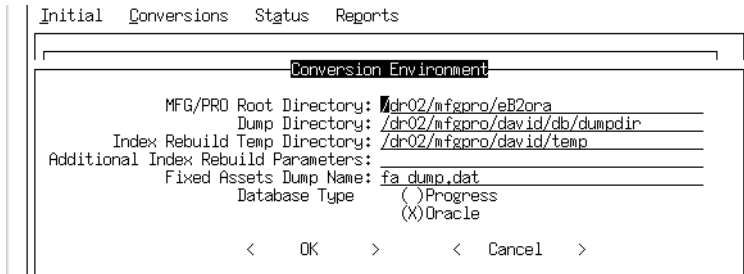
- 3 In MFG/UTIL, select Database and choose QAD Conversion Shell.



Conversion Environment Setup

- 4 The Conversion Environment screen displays (Initial|Set Up Environment from the MFG|CONV menu). Use the screen example and the field descriptions to complete the dialog.

Tip
The screens in this chapter reflect an Oracle conversion.



MFG/PRO Root Directory. This is the target version install directory.

Dump Directory. Specify the location where you want the source version data files to be dumped.

Index Rebuild Temp Directory. Progress only. Enter the path and name of the directory to use for the index rebuild temporary files. If you leave this prompt blank, these files are created in the directory where you launched MFG/UTIL.

Note The directory you specify must have sufficient space to accommodate the index rebuild temporary files. During a database index rebuild, at least 75% of the source version production database size must be available for temporary files.

Additional Index Rebuild Parameters. Progress only. Use this prompt to enter additional Progress index rebuild parameters. For more information, see the *Progress System Administration Guide*.

Fixed Assets Dump Name. If the source version has the Fixed Assets module implemented, provide a file name for the dump. Use the default `fa_dump.dat` or enter a new file name. Record the file name for future use if you do not use the default. Do not enter the full path.

Database Type. Select Progress or Oracle.

Source Database Setup

Most conversions follow steps 5 through 9 in this section to dump their standard production database. However, if you have implemented European Accounting in a Progress environment as a separate database, you will need to complete steps 5 through 9 and the subsequent dumps (up to “Dumping Custom Online Help, Menus, and Messages” on page 66) for the European Accounting database, and then return to this section and do the same steps for the standard production database.

- 5 Choose OK to continue to the Source Database Information screen (Initial|Source Database Setup on the MFG/CONV menus). Use the screen and field descriptions to complete this dialog.

```

Source Database Information
-----
Database Name: david85hold
Database Directory: /dr02/mfgpro/david85
Database Host:
Database Service Name:
Oracle Instance Name: david85
Oracle User Name: qad
Oracle Password: qad
Oracle Extra Parameters: -c 500
-----
< OK > < Cancel >

```

Database Name. Enter the name of your production database (Progress) or conversion schema holder database (Oracle); for example, `mfgprod`. The European Accounting database is called `qadepm` or `largo` by default. Do not include the `.db` extension.

Database Directory. Enter the path to your source database directory; for example, `/qad/mfgpro85/db`.

Database Host. To perform a background dump of your source version data, enter the host name of the machine where the source version schema holder database is located.

See “Dumping Data” on page 62 for details on background dumps.

Note If you are not going to perform a background dump—or for Oracle conversions, if you are connecting through the SQL*Net Listener or shared memory—leave this prompt blank.

Database Service Name. To perform a background dump of your source version data, enter the service name of your source version schema holder database. (See note for previous entry.)

Oracle Instance Name. Oracle only: Enter the source version instance name.

Oracle User Name. Oracle only: Enter the source version user name. Usually this is qad. If you are connecting to a remote host, the user name is qad@ORACLE_SID.

Oracle Password. Oracle only: Enter the source version password. Usually this is qad.

Oracle Extra Parameters. Oracle only: Enter any startup parameters for the Oracle schema holder in addition to those already defined in the standard source version startup scripts.

See the *Progress Oracle DataServer Guide* for details.

6 Choose OK.

- a On Progress, the Source Database Information screen for the Administration database opens. Complete the same prompts listed in step 5 on page 56.

Operations Planning Database Setup

- b If you are converting from a 7.4 database, the Ops Planning Database Information screen displays (7.4 Ops Planning DB Setup on the MFG|CONV Initial menu). Leave the prompts blank if you do not have Operations Planning implemented. Otherwise, enter the source Operations Planning database name, directory, host, and service.

```

Ops Planning Database Information
< Database >
Database Name: _____
Database Directory: _____
Database Host: _____
Database Service Name: _____
  
```

Target Database Setup

- 7 Choose OK. (This could be from the Admin setup, the Ops Planning setup, or from the Oracle Source Database setup screens.) The Target Database Information screen displays (Initial|Target qaddb Setup menu). Use the screen and field descriptions to complete the dialog.

```

Target Database Information
< Database >
Database Name: davidhold
Database Directory: /dr02/mfgpro/david
Database Host:
Database Service Name:
Oracle Instance Name: david
Oracle User Name: qad
Oracle Password: qad
Oracle Extra Parameters: -c 500
  
```

Database Name. Enter the name of your target schema holder database; for example, eb2prod. Do not include the .db extension.

Database Directory. Enter the path to your target database directory; for example, /qad/mfgsvr/db.

Database Host. The host name of the machine where the target version schema holder database is located.

Note For Oracle conversions, if you are connecting through the SQL*Net Listener or shared memory, leave this prompt blank.

Database Service Name. The service name of your target version schema holder database. (See note for previous entry.)

Oracle Instance Name. Oracle only: Enter the target version instance name.

Oracle User Name. Oracle only: Enter the target version user name. Usually this is qad. If you are connecting to a remote host, the user name is qad@ORACLE_SID.

Oracle Password. Oracle only: Enter the target version password. Usually this is qad.

Oracle Extra Parameters. Oracle only: Specify any startup parameters for the Oracle schema holder in addition to those already defined in the standard target version startup scripts.

- 8 Choose OK. On Progress, the Target Database Information screen for the Administration database opens (Initial|Target admin Setup menu). Complete the same prompts listed in step 7 on page 58.

See “Dumping Data” on page 62 for details on background dumps.

- 9 On completion, choose OK. The conversion log displays. This ends the automated steps.

Conversion Specific Questions

- 1 Access the Initial menu and select Conversion Specific Questions.
- 2 The User Interface Questions screen displays. Use the list of questions and the following graphic to complete the prompts. Some prompts may not appear, depending on what source version you are converting.

Use arrow keys to select each applicable prompt.

Enter information for highlighted prompts here. Then choose Next.

Choose OK when finished.

User Interface Questions

>Enter prefix for new pre-shipper NRM sequence IDs
Enter prefix for new shipper NRM sequence IDs
Enter prefix for new master bill NRM sequence IDs
Enter prefix for new shipper document format codes
Enter new list type for existing 'carrier' addresses
Enter Currency Exchange Unrealized Gain account

Question Relates to :
Please Type Your Answer Below
P02

< Next > < Prev > < OK > < Cancel >

- 3 When you have completed the prompts, choose OK. The conversion log displays. A detailed description of the prompts follows.

Global Shipping Prompts

Enter prefix for new pre-shipper NRM sequence IDs. Specify the Number Range Management (NRM) sequence the system creates and assigns to all new pre-shippers if a default is not defined in Container/Shipper Control.

Enter prefix for new hipper NRM sequence IDs. Specify the NRM sequence the system creates and assigns to all new shippers if a default is not defined in Container/Shipper Control.

Enter prefix for new master bill of lading NRM sequence IDs. Specify the NRM sequence the system creates and assigns to all new master bills of lading if a default is not defined in Container/Shipper Control.

Enter prefix for new document format codes. Specify the document format the system creates for standard and custom shipper print procedures.

Enter new list type for existing “carrier” addresses. Global Shipping creates a reserved *carrier* list type. If you created a user-defined list type called *carrier* prior to installing the target version, the conversion utility lets you redefine the existing *carrier* list type.

- To preserve the existing carrier list type, leave this blank or enter *carrier*. The addresses are designated as carrier addresses.
- To redefine the existing carrier list type, enter a new list type name at the prompt.
- To merge the existing carrier list type with another existing list type, enter the non-carrier list type.

Evaluated Receipts Settlement Prompts

Enable ERS for PO's? If Yes, the conversion program modifies existing purchase order records for use with the ERS feature. If No, existing purchase orders are not modified.

Service/Support Management Prompts

Service charges converted to coverage limits. The Field Service conversion maps service charge types, which are obsolete, to the new definition method used in Version 8.6. To map the service charge types automatically, answer Yes to this prompt and complete the following questions. To redefine your coverage levels manually, answer No and skip the following questions.

Primary Invoice Sort for... ..Expense Item Coverage.

Labor Coverage

Misc. Coverage

Item Coverage

Travel Coverage. Set up invoice sort codes to convert your service charge types. For details on setting up invoice sort codes, see “Field Service Reports (7.4 only)” on page 29. In these prompts, enter the invoice sort codes you want to use. Note the following:

- Expense Item Coverage relates to type E service charge.

- Labor Coverage relates to type L service charge.
- Misc. Coverage relates to type M service charge.
- Item Coverage relates to type P service charge.
- Travel Coverage relates to type T service charge.

Euro Data Conversion Prompts

Enter Currency Exchange Unrealized Gain Account

...**Cost Center.** These prompts create a default account and cost center for posting unrealized gains in currency exchanges. The account number can contain both account and sub-account elements. If you leave the account blank, the Unrealized Exch Rate Gain/Loss account defined in General Ledger Control is used as a default. No default cost center is used.

Enter Currency Exchange Unrealized Loss Account

...**Cost Center.** Specify the default account and cost center for posting unrealized losses in currency exchanges. (See notes from previous entry.)

Enter Currency Exchange Realized Gain Account

...**Cost Center.** Specify the default account and cost center for posting realized gains in currency exchanges. If you leave this prompt blank, the Exchange Gain account and cost center defined in the first bank master record matching the currency in question are used.

Enter Currency Exchange Realized Loss Account

...**Cost Center.** Specify the default account and cost center for posting realized losses in currency exchanges. (See notes from previous entry.)

Enter Currency Exchange Rounding Account

...**Cost Center.** Specify the default account and cost center for posting rounding amounts in currency exchanges. If you leave this prompt blank, no default account or cost center is assumed.

Note This account is not currently used in MFG/PRO; it is intended for future releases.

Dumping Data

▶ See “Setting Environment Values” on page 54.

Background dumps take advantage of multiprocessor database servers by letting you split the data dump into several processes that run simultaneously. Foreground dumps dump the data in a single process. Foreground dumps on large databases (20 GB +) consume roughly the same number of megabytes (20 MB) of memory.

To dump your source version data, use the instructions appropriate to the type of dump you want to run.

Foreground Dump

These steps dump the source version data as a single foreground process.

Note For Oracle conversions, if you are connecting to the database using shared memory, edit `mfgconv.ini` in a text editor. Make sure the connection string does not include `@ORACLE_SID`.

- 1 In MFG/CONV, select the Conversions menu and choose Dump Source Database Data.

When you choose Dump Source Database Data, MFG/CONV uses the Dump Files Foreground program (`svp3.p`) to dump the data from your source version database into the conversion dump directory.

- 2 During the dump, the files being dumped display in the MFG/CONV screen. When the dump finishes, the program complete message displays.

```

Initial  Conversions  Status  Reports

Dumping table: vph hist
Running svfa.p
Dumping table:
dord mstr.dbk mstr.fal mstr.cls mstr.ast mstr.abd det.dord det.accd det
Finished svfa.
Finished svp3.
Information
You must quit the Conversion Shell now
to run the Oracle dataload and index build.
OK
  
```

- 3 Choose OK. MFG/CONV exits to MFG/UTIL. Exit MFG/UTIL. See “Next Steps” on page 67 for the next step.

Background Dump

To split the dump into several background processes:

- 1 On Oracle databases, start a listener for the source version database.
- 2 On all systems, start a separate read-only client for each background dump queue.

```
ProgressInstallDir/bin/_mprosrv SchemaHolder
-RO -S ServiceName
```

The broker spawns separate `_mprosrv` processes for each queue as well as one for MFG/CONV.

- 3 Launch MFG/CONV from MFG/UTIL.
- 4 From MFG/CONV, select the Conversions menu and choose Assign Tables to Background Queues.
- 5 Use the Configure Background Dumps screen to assign the production database tables to different background dump processes. Review the following field list to help you complete this screen.

Table list. All tables in the source version database display. Select tables you want to assign to a particular dump process (queue) using the up and down arrow keys and the Spacebar.

Note If you are converting from 7.3 or 7.4, special dump programs are run against some of the tables. These tables are automatically assigned to Queue 7, which does not appear in Configure Background Dumps. These tables do not display in the table list.

Queues. When you have selected the tables you want to assign to a dump process, press Tab to access the queues list. Use the up and down arrow keys to select a queue, then press the Spacebar to assign the selected tables to the queue. The number to the left of the table name in the table list specifies the queue to which the table is assigned.

Sort by options. Specify how the tables display in the tables list.

- Select Sort By Queue to list the tables by queue.
- Select Sort By Table to list the tables alphabetically.

The `abs_mstr`, `accd_det`, and `acd_det` tables are assigned to the first queue.

Each queue represents a separate dump process.

Configure Background Dumps

<pre> 1 abs_mstr 1 accd_det 1 acd_det 2 acx_mstr 2 ac_mstr 2 adc_ctrl 6 adp_det 6 ad_mstr 6 ald_det </pre>	<pre> (X) Queue 1 () Queue 2 () Queue 3 () Queue 4 () Queue 5 () Queue 6 (X) Sort By Queue () Sort By Table </pre>
--	---

< Exit >

Press <SPACE> on row(s) in list to select table(s) for assignment.
Press <SPACE> on Queue Radio Button to assign selected tables to queue
Press <SPACE> on Sort By Radio Button to resort list.
Press Tab to move between fields.

Enter data or press F4 to end.

- 6 After assigning all database tables to queues, choose Exit.
- 7 From MFG/CONV, select the Conversions menu and choose Background Dump Source Database Data.
- 8 The files being dumped display in the MFG/CONV screen. When the dump finishes, the program complete message displays.
- 9 A log file is created in the `conv` subdirectory below `TVInstallDir` for each queue you created. Check the log files for dump errors.
- 10 From MFG/CONV, select Initial|Exit to exit MFG/CONV. Exit MFG/UTIL and return to the operating system.

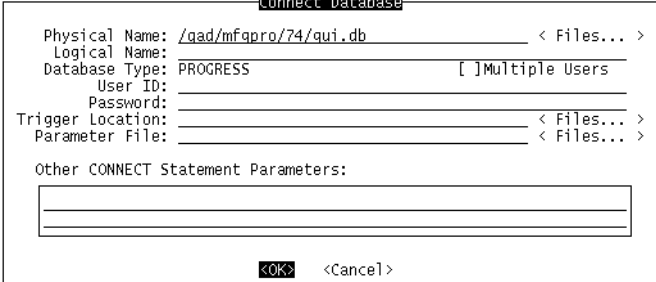
Additional Progress Database Dumps

Progress Only: MFG/PRO Progress environments can connect to multiple databases (production, administration, help, cfg, gui, Intrastat, and GL Report Writer) in a single session. The following dumps extract the required data from those side databases.

Note Not all MFG/PRO versions use all the databases listed. If your environment does not use a `gui` database, for example, you can skip that database dump.

The following steps detail the dump of the `gui` database. Complete the additional dumps listed in step 6 using the same steps.

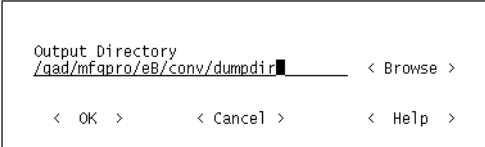
- 1 From MFG/UTIL, select Database|Dump Data From Database.
- 2 When the Connect Database screen displays, specify the path and name of your source version `gui` database in the Physical Name field. Choose OK to continue.



The **Connect Database** dialog box contains the following fields and controls:

- Physical Name:** /qad/mfgpro/74/gui.db < Files... >
- Logical Name:** _____
- Database Type:** PROGRESS [] Multiple Users
- User ID:** _____
- Password:** _____
- Trigger Location:** _____ < Files... >
- Parameter File:** _____ < Files... >
- Other CONNECT Statement Parameters:** _____
- Buttons: <OK> <Cancel>

- 3 Specify the conversion dump directory in the Output Directory field. You can use the Browse button to select this directory.



The **Output Directory** dialog box contains the following fields and controls:

- Output Directory:** /qad/mfgpro/eB/conv/dumpdir < Browse >
- Buttons: < OK > < Cancel > < Help >

- 4 The Table Selection for Dump screen displays with all of the tables in the source version database selected. Accept this default and choose OK to begin dumping data.
- 5 When the dump completes, press Spacebar to continue.
- 6 Repeat these steps for the following databases:
 - `cfg` (Configurator database)
 - `glrw` (GL Report Writer database)
 - `intra` (Intrastat database)

Dumping Custom Online Help, Menus, and Messages

If you have written custom field help or custom menus and messages in your source system, Oracle and Progress environments should complete the next two sets of steps:

- 1 Start a single-user source version MFG/PRO session.
- 2 Select Field Help Dump (36.4.18).
- 3 Enter user as the start and end range in the Text Type and To fields.
- 4 The field help dump file name defaults to `fieldhlp.fhd`. You can change this default.
- 5 Press Go to begin the dump. The dump file is created in your current working directory.
- 6 Move the file to your conversion dump directory (`./dumpdir`).
- 7 Check the log file for any errors. Resolve errors before proceeding.

Dumping Custom MFG/PRO Settings

This set of steps records additional custom settings.

- 1 Review the custom records created for browses, views, drill-downs, and the user tool bar.
- 2 Record all the menu substitutions you made; you will need to reenter them in the target version environment.
- 3 Record custom modifications, as opposed to additions, you made to the default records. Your additions to the default data can be dumped and loaded, but your modifications must be reentered.
- 4 Keep a copy of your custom modifications because they may be overwritten in future releases.

Additional MFG/CONV Menu Options

The basic conversion steps do not cover all the MFG/CONV menu items. The Reports menu is described in “Custom Menus and Messages Reports” on page 35.

Initial Menu

Start a New Log File

This option renames the current log file and starts a new one. In previous releases, MFG/CONV created a new log file every time it started. This resulted in many log files in the /conv directory. The default behavior is now to append to the existing log file. You now must create a new log file manually.

Reset Dump Records and Program History

This option resets mfgconv.ini. This file tracks which tables have been dumped and which programs have been run. If you convert a second database or start over for some reason, this option resets MFG/CONV to make that possible.

Status Menu

This displays conversion programs run as recorded in mfgconv.ini.

Conversion Program Status	
Name	Conversion Program S
>svfa.p	Finished
svp3.p	Finished

Next Steps

If you are completing a Progress conversion, go to Chapter 6, “Loading Target Data in a Progress Database,” on page 69.

For Oracle conversions, go to Chapter 7, “Loading Target Data in an Oracle Database,” on page 77.

Loading Target Data in a Progress Database

Use this chapter to convert MFG/PRO 7.3 through eB environments to MFG/PRO eB2.

Overview **70**

Loading Production Data **70**

Loading ECommerce Data **71**

Loading Administration Data **71**

Loading gui Data **72**

Loading cfg Data **73**

Loading Menu and Message Data **73**

Truncating the Before-Image File **76**

Overview

The following variables apply to the remainder of the conversion.

Table 6.1
Production Data
Load Variables

Variable	Description
<i>TVInstallDir</i>	Target version MFG/PRO server install directory
<i>\$DLC</i>	Progress install directory (target version if different)
<i>PATH</i>	Must include target Progress /bin directory, not source.
<i>dumpdir</i>	Path to the conversion dump directory

Loading Production Data

Use the following instructions to load the source version production data into your target version production database:

- 1 From MFG/UTIL, select the Database menu and choose QAD Conversion Shell.
- 2 From MFG/CONV, select the Conversions menu and choose Run the Progress Bulkload Program.
- 3 Review the bulkload log file for errors. Resolve any bulkload errors before continuing.
- 4 After the bulkload is complete, choose Run the Progress Index Rebuild from the Conversions menu.

▶ See “Additional Index Rebuild Parameters” on page 55.

Warning If your source version database is larger than 3 GB, you may encounter system errors. For instructions on how to avoid these errors, see the section “Rebuilding Indexes” in the *Progress System Administration Guide*. Specifically, see the topic “Overcoming SRT Size Limitations.” You can add Progress parameters to the index rebuild using the additional index rebuild parameters prompt in the MFG/CONV environment prompts.

- 5 Review the index rebuild log for errors. Resolve any index rebuild errors before continuing.

Loading ECommerce Data

QAD introduced the ECommerce module for enhanced electronic data interchange (EDI) functionality in MFG/PRO 9.0. If you have this module implemented in your source version, complete the following steps. If you do not have the ECommerce module implemented in your source version, you can skip this section.

In MFG/PRO 9.0, the database elements for the ECommerce module were located in the main production database. In MFG/PRO eB2, these elements are located in the administration (admin) support database. Complete the following instructions to load your source version ECommerce data into the target version admin database.

The steps in this section use the variables in Table 6.1 on page 70.

- 1 Change directories to the `conv` subdirectory below the target version installation directory:

```
cd TVInstallDir/conv
```

- 2 Run the ECommerce data load program (`ld91ecg.p`) using the following command:

```
$DLC/bin/pro AdminDB -p ld91ecg.p -param /dumpdir  
-yy 1920
```

Loading Administration Data

In this section, you load MFG/PRO system data into your administration (admin) database.

Important No matter what source version you are converting, you must complete this data load.

If you had the ECommerce module implemented in your source version, this section assumes you completed the instructions in “Loading ECommerce Data” on page 71. In this case, you can expect to receive duplicate record errors when you load the QAD-supplied admin data for

the ECommerce database elements. You can safely ignore these errors. The data you loaded from your source version database will take precedence over the default data.

- 1 Change directories to the `conv` subdirectory below the target version installation directory:

```
cd TVInstallDir/conv
```

- 2 Run the admin data load program (`ld91adm.p`) using the following command:

```
$DLC/bin/pro AdminDB -p ld91adm.p  
-param /TVInstallDir/admin -yy 1920
```

- 3 Check any Progress error files (extension `.e`) that were created in the `admin` subdirectory for data conflicts.

▶ See Chapter 11, “Resolving Conversion Errors,” on page 195.

Loading gui Data

In this section, you load the data you dumped from the source version gui database into the target version administration (`admin`) database.

If you did not dump source version gui data, you can skip this section.

- 1 Change directories to the `conv` subdirectory below the target version installation directory:

```
cd TVInstallDir/conv
```

- 2 Run the gui load program (`ld91gui.p`) using the following command:

```
$DLC/bin/pro AdminDB -p ld91gui.p -param /dumpdir  
-yy 1920
```

- 3 Check any Progress error files (extension `.e`) that were created in the conversion dump directory for data conflicts.

▶ See Chapter 11, “Resolving Conversion Errors,” on page 195.

Loading cfg Data

In this section, you load the custom data you dumped from the source version configurator (cfg) database into the target version administration (admin) database.

If you did not dump source version cfg data, you can skip this section.

- 1 Change directories to the `conv` subdirectory below the target version installation directory:

```
cd TVInstallDir/conv
```

- 2 Run the `cfg` load program (`ld91cfg.p`) using the following command:

```
$DLC/bin/pro AdminDB -p ld91cfg.p -param /dumpdir  
-yy 1920
```

- 3 Check any Progress error files (extension `.e`) that were created in the `gui` dump directory for data conflicts.

♦ See Chapter 11, “Resolving Conversion Errors,” on page 195.

Loading Menu and Message Data

Use the following instructions to load the default MFG/PRO menu and message data into your target version production and administration databases.

Important No matter what source version you are converting, you must complete this data load.

Load Language-Independent Data

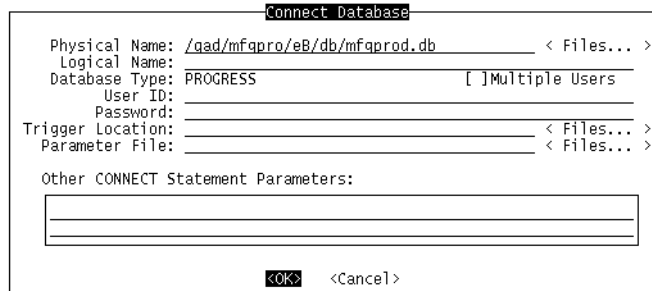
Use the following instructions to load language-independent system data:

- 1 From the target version installation directory, launch MFG/UTIL:

```
cd TVInstallDir  
./mfgutil
```

- 2 From MFG/UTIL, select the Database menu and choose Load Data into Database.

- 3 In the Connect Database screen, specify the path and name of your target version production database in the Physical Name field. Leave all of the other fields blank and choose OK.



The image shows a 'Connect Database' dialog box with the following fields and options:

- Physical Name: /qad/mfqpro/eB/db/mfqprod.db < Files... >
- Logical Name: (empty)
- Database Type: PROGRESS [] Multiple Users
- User ID: (empty)
- Password: (empty)
- Trigger Location: (empty) < Files... >
- Parameter File: (empty) < Files... >
- Other CONNECT Statement Parameters: (empty text area)
- Buttons: <OK> <Cancel>

- 4 In the Input Directory screen, specify the mfg subdirectory below your target version installation directory.
- 5 When the Table Selection for Load screen displays, select the following tables. Choose OK to begin loading.

Table	Description
flh_mstr	Field Help Program Master
hlp_mstr	Help Master
lng_mstr	Language Master
mnd_det	Menu Detail

- 6 When the load completes, press Spacebar to continue.

Load Language-Specific Data

Use the following instructions to load language-specific system data.

If your target version MFG/PRO environment has more than one language, repeat the following steps for each of the languages you are implementing.

Load Language-Specific Production Data

- 1 From MFG/UTIL, select the Database menu and choose Load Data into Database.
- 2 In the Connect Database screen, specify the path and name of your target version production database in the Physical Name field. Leave all of the other fields blank and choose OK.

Connect Database

Physical Name: /qad/mfqpro/eB/db/mfqprod.db < Files... >
 Logical Name: _____
 Database Type: PROGRESS [] Multiple Users
 User ID: _____
 Password: _____
 Trigger Location: _____ < Files... >
 Parameter File: _____ < Files... >

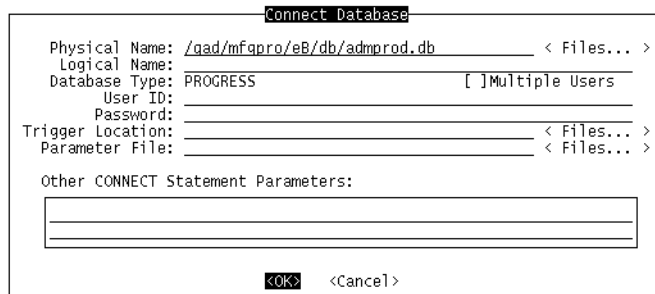
Other CONNECT Statement Parameters:

<OK> <Cancel>

- 3 In the Input Directory screen, specify the mfg subdirectory below the language-code directory for the language you are implementing. The language-code directory is located below your target version installation directory.
 For example, if your target version environment is US-English, specify *TVInstallDir/us/mfg*.
- 4 When the Table Selection for Load screen displays, all of the tables in the production database with corresponding data files (extension .d) in the language-specific mfg subdirectory are selected. Choose OK to begin loading data.
- 5 When the load completes, press the Spacebar to continue.

Load Language-Specific Administration Data

- 1 From MFG/UTIL, select the Database menu and choose Load Data into Database.
- 2 In the Connect Database screen, specify the path and name of your target version admin database in the Physical Name field. Leave all of the other fields blank and choose OK.



The image shows a 'Connect Database' dialog box with the following fields and options:

- Physical Name: /qad/mfgpro/eB/db/admprod.db < Files... >
- Logical Name: _____
- Database Type: PROGRESS [] Multiple Users
- User ID: _____
- Password: _____
- Trigger Location: _____ < Files... >
- Parameter File: _____ < Files... >
- Other CONNECT Statement Parameters: _____

At the bottom are buttons for <OK> and <Cancel>.

- 3 In the Input Directory screen, specify the admin subdirectory below the language-code directory for the language you are implementing. The language-code directory is located below your target version installation directory.
For example, if your target version environment is US-English, specify *TVInstallDir/us/admin*.
- 4 When the Table Selection for Load screen displays, all of the tables in the admin database with corresponding data files (extension .d) in the language-specific admin subdirectory are selected. Choose OK to being loading data.
- 5 When the load completes, press Spacebar to continue.

Truncating the Before-Image File

Truncating the before-image file ensures all data in the database is synchronized.

- 1 Run the following command:

```
$DLC/bin/proutil /TVInstallDir/db/mfgprod -C truncate bi
-G 0
```

Loading Target Data in an Oracle Database

Use this chapter to convert MFG/PRO 7.3 through eB Oracle or Progress databases to an MFG/PRO eB2 Oracle database environment.

Overview **78**

Loading Production Data **78**

Building Oracle Indexes **79**

Loading ECommerce Data **79**

Loading Administration Data **80**

Loading Menu and Message Data **80**

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Loading CFG Data **85**

Truncating the Before-Image File **85**

Overview

The remaining sections focus solely on the target version schema holder and database. Set the following variables to apply for the remainder of the conversion.

Table 7.1
Production Data
Load Variables

Variable	Description
<i>TVInstallDir</i>	Target version MFG/PRO server install directory
<i>\$DLC</i>	Progress install directory (target version if different)
<i>SchemaHolder</i>	Path and name of target version production schema holder
<i>ORACLE_HOME</i>	Oracle install directory (target version if different)
<i>ORACLE_SID</i>	System identifier for your target version Oracle database
<i>LIBPATH</i>	Must include target Oracle libraries
<i>PATH</i>	Must include target ORACLE_HOME, not source
<i>dumpdir</i>	The path to the conversion dump directory

Loading Production Data

Use the following instructions to load source version production data to the target version Oracle database.

- 1 Log on as mfg.
- 2 Change to the `conv` subdirectory below *TVInstallDir*:

```
cd TVInstallDir/conv/
```

- 3 Run the production data load program `ld91qad.p`:

```
$DLC/bin/pro /TVInstallDir/db/SchemaHolder -RO -db  
ORACLE_SID -dt oracle -U qad -P qad -p ld91qad.p -param  
/dumpdir -yy 1920
```

Note If the executable is not `_progres`, then run `_proora` here.

- 4 Check any error files (extension `.e`) created in the conversion dump directory for data conflicts.

► For information on resolving data conflicts, see Chapter 11, “Resolving Conversion Errors,” on page 195.

Building Oracle Indexes

Run the target version SQL scripts that build the Oracle indexes:

- 1 Log on as a member of the Oracle database administration group, which does not usually include `root`.
Note If you created the user `mfg` as a member of the Oracle database administration group, log on as `mfg`.

- 2 Change directories to the location of the Oracle database.

- 3 To create production indexes, run `oraempty-idx.sql`:

```
sqlplus qad/qad < oraempty-idx.sql
```

Resolve any errors that occurred.

- 4 To create administration indexes, run `oadmempty-idx.sql`:

```
sqlplus qad/qad < oadmempty-idx.sql
```

Resolve any errors.

▶ See Chapter 11, “Resolving Conversion Errors,” on page 195.

Loading ECommerce Data

QAD introduced the ECommerce module for enhanced electronic data interchange (EDI) functionality in MFG/PRO 9.0. If this module is implemented in your source version, complete the following steps. If you do not have the ECommerce module, skip this section.

Use the following instructions to load your source version ECommerce data into the target version Oracle database.

- 1 Change to the `conv` subdirectory below `TVInstallDir`:

```
cd TVInstallDir/conv
```

- 2 Run the ECommerce data load program `ld91ecg.p`:

```
$DLC/bin/pro /TVInstallDir/db/SchemaHolder -RO -db  
ORACLE_SID -dt oracle -U qad -P qad -p ld91ecg.p -param  
/dumpdir -yy 1920
```

◆ For information on resolving data conflicts, see Chapter 11, “Resolving Conversion Errors,” on page 195.

- 3 Check any error files in the conversion dump directory.

Loading Administration Data

Use the following instructions to load MFG/PRO system data into the administration (admin) tables in your target version Oracle database.

Important No matter what source version you are converting, you must complete this data load.

This section assumes you completed the instructions in “Loading ECommerce Data” on page 79 if they apply to your system. In this case, you will receive duplicate record errors when you load the administration data. You can safely ignore these errors; the data loaded from your source version database takes precedence over the default data.

- 1 Change to the `conv` subdirectory below `TVInstallDir`:

```
cd TVInstallDir/conv
```

- 2 Run the admin data load program `ld91adm.p`:

```
$DLC/bin/pro /TVInstallDir/db/SchemaHolder -RO -db  
ORACLE_SID -dt oracle -U qad -P qad -p ld91adm.p -param  
/TVInstallDir/admin -yy 1920
```

Resolve any errors that occurred.

◆ See Chapter 11, “Resolving Conversion Errors,” on page 195.

Loading Menu and Message Data

Use the following instructions to load the MFG/PRO eB2 menu and message system data into your target version Oracle database.

Important This data load is required for all versions.

Load Language-Independent Data

Use the following instructions to load language-independent system data.

- 1 From `TVInstallDir`, launch MFG/UTIL:

```
cd TVInstallDir  
./mfgutil
```

- 2 In MFG/UTIL, select Database|Load Data into Database.
- 3 In the Connect Database screen, specify the path and name of your target version production schema holder in the Physical Name field. Leave all other fields blank and choose OK.

Connect Database

Physical Name: ./db/oraprod.db < Files... >
 Logical Name: _____
 Database Type: PROGRESS [] Multiple Users
 User ID: _____
 Password: _____
 Trigger Location: _____ < Files... >
 Parameter File: _____ < Files... >
 Other CONNECT Statement Parameters:

 <OK> <Cancel>

- 4 When prompted to connect to the Oracle database, specify Yes.

Question

Database oraempty is a ORACLE Schema Holder.
 Do you wish to connect to the ORACLE Database?

 <Yes> <No>

- 5 In the Connect Database screen, specify qad/qad@ORACLE_SID in the User ID field. Choose OK to continue.

Connect Database

Physical Name: _____ < Files... >
 Logical Name: qaddb
 Database Type: ORACLE [] Multiple Users
 User ID: qad/qad@mfgora
 Password: _____
 Trigger Location: _____ < Files... >
 Parameter File: _____ < Files... >
 Other CONNECT Statement Parameters:

 <OK> <Cancel>

- 6 In Input Directory, specify /TVInstallDir/mfg.

Input Directory:
./mfg < Browse >

 < OK > < Cancel > < Help >

Tip

Deselect all tables first, then select those you need.

- 7 When the Table Selection for Load screen displays, select the following tables. Choose OK to begin loading.

Table	Description
flh_mstr	Field Help Program Master
hlp_mstr	Help Master
lng_mstr	Language Master
mnd_det	Menu Detail

- 8 When the load completes, press Spacebar to continue.
- 9 Resolve any errors that occur.

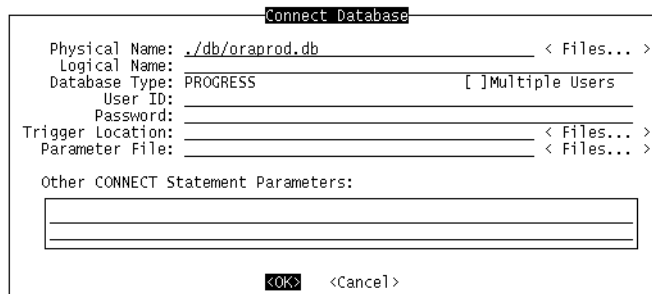
See Chapter 11, “Resolving Conversion Errors,” on page 195.

Load Language-Specific Data

If your target version MFG/PRO environment has more than one language, repeat the steps for each language you are implementing.

Load Language-Specific Production Data

- 1 In MFG/UTIL, select Database|Load Data into Database.
- 2 In the Connect Database screen, specify the path and name of your target version production schema holder in the Physical Name field. Leave all of the other fields blank and choose OK.

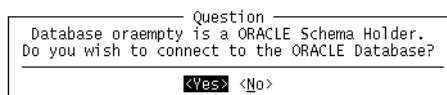


The image shows a 'Connect Database' dialog box with the following fields and options:

- Physical Name: < Files... >
- Logical Name:
- Database Type: PROGRESS [] Multiple Users
- User ID:
- Password:
- Trigger Location: < Files... >
- Parameter File: < Files... >
- Other CONNECT Statement Parameters:

At the bottom are buttons for <OK> and <Cancel>.

- 3 When prompted to connect to the Oracle database, specify Yes.



The image shows a 'Question' dialog box with the following text:

Database oraempty is a ORACLE Schema Holder.
Do you wish to connect to the ORACLE Database?

At the bottom are buttons for <Yes> and <No>.

- 4 In the Connect Database screen, specify `qadddb` in the Logical Name field and `qad/qad@ORACLE_SID` in the User ID field. Choose OK.

Connect Database

Physical Name: _____ < Files... >
 Logical Name: qadddb
 Database Type: ORACLE [] Multiple Users
 User ID: qad/qad@mfqora
 Password: _____
 Trigger Location: _____ < Files... >
 Parameter File: _____ < Files... >
 Other CONNECT Statement Parameters:

 <OK> <Cancel>

- 5 In Input Directory, specify the `mfg` directory below the language-code directory for the language you are implementing. The language-code directory is below your `TVInstallDir`. For example, if your target version is US-English, specify `TVInstallDir/us/mfg`.
- 6 When Table Selection for Load displays, all the tables in the Oracle database with corresponding data files (`.d`) in the language-specific `mfg` subdirectory are selected. Choose OK to being loading data.
- 7 When the load completes, press Spacebar to continue.
- 8 Resolve any errors that occur.

♦ See Chapter 11, “Resolving Conversion Errors,” on page 195.

Load Language-Specific Administration Data

- 1 In MFG/UTIL, select Database|Load Data into Database.
- 2 In the Connect Database screen, specify the path and name of your target version production schema holder in the Physical Name field. Leave all of the other fields blank and choose OK.

Connect Database

Physical Name: ./db/oraprod.db < Files... >
 Logical Name: _____
 Database Type: PROGRESS [] Multiple Users
 User ID: _____
 Password: _____
 Trigger Location: _____ < Files... >
 Parameter File: _____ < Files... >
 Other CONNECT Statement Parameters:

 <OK> <Cancel>

- 3 When prompted to connect to the Oracle database, specify Yes.

Question

Database oraempty is a ORACLE Schema Holder.
Do you wish to connect to the ORACLE Database?

☒ Yes ☐ No

- 4 In the Connect Database screen, specify qadddb in the Logical Name field and qad/qad@ORACLE_SID in the User ID field. Choose OK.

Connect Database

Physical Name: _____ < Files... >

Logical Name: qadddb

Database Type: ORACLE [] Multiple Users

User ID: qad/qad@ora

Password: _____

Trigger Location: _____ < Files... >

Parameter File: _____ < Files... >

Other CONNECT Statement Parameters:

<OK> <Cancel>

- 5 In Input Directory, specify the admin directory below the language-code directory for the language you are implementing. The language-code directory is located below your *TVInstallDir*. If your target version is US-English, specify *TVInstallDir/us/admin*.
- 6 When Table Selection for Load displays, all tables in the Oracle database with corresponding data files (. d) in the language-specific admin subdirectory are selected. Choose OK to being loading data.
- 7 When the load completes, press the Spacebar to continue.
- 8 Resolve any errors that occur.

► See Chapter 11, “Resolving Conversion Errors,” on page 195.

Loading GUI Data

Use the following instructions to load your source version gui data into the administration (admin) tables in your target version Oracle database.

Important You can expect to encounter duplicate record errors during this load where source and target gui records are identical.

- 1 Change to the *conv* directory below *TVInstallDir*:

```
cd TVInstallDir/conv
```

- 2 Run the EC data load program `ld91gui.p`:

```
$DLC/bin/pro /TVInstallDir/db/SchemaHolder -RO -db
ORACLE_SID -dt oracle -U qad -P qad -p ld91gui.p -param
/dumpdir -yy 1920
```

- 3 Resolve any errors that occur.

▶ See Chapter 11, “Resolving Conversion Errors,” on page 195.

Loading CFG Data

Use the following instructions to load your source version cfg data into the administration (admin) tables in your target version Oracle database.

If you are converting a pre-MFG/PRO 8.5 source version database, you can skip this section.

Important You can expect to encounter duplicate record errors during this load where source and target cfg records are identical.

- 1 Run the cfg data load program `ld91cfg.p` from `/conv`:

```
$DLC/bin/pro /TVInstallDir/db/SchemaHolder -RO -db
ORACLE_SID -dt oracle -U qad -P qad -p ld91cfg.p -param
/dumpdir -yy 1920
```

- 2 Resolve any errors that occur.

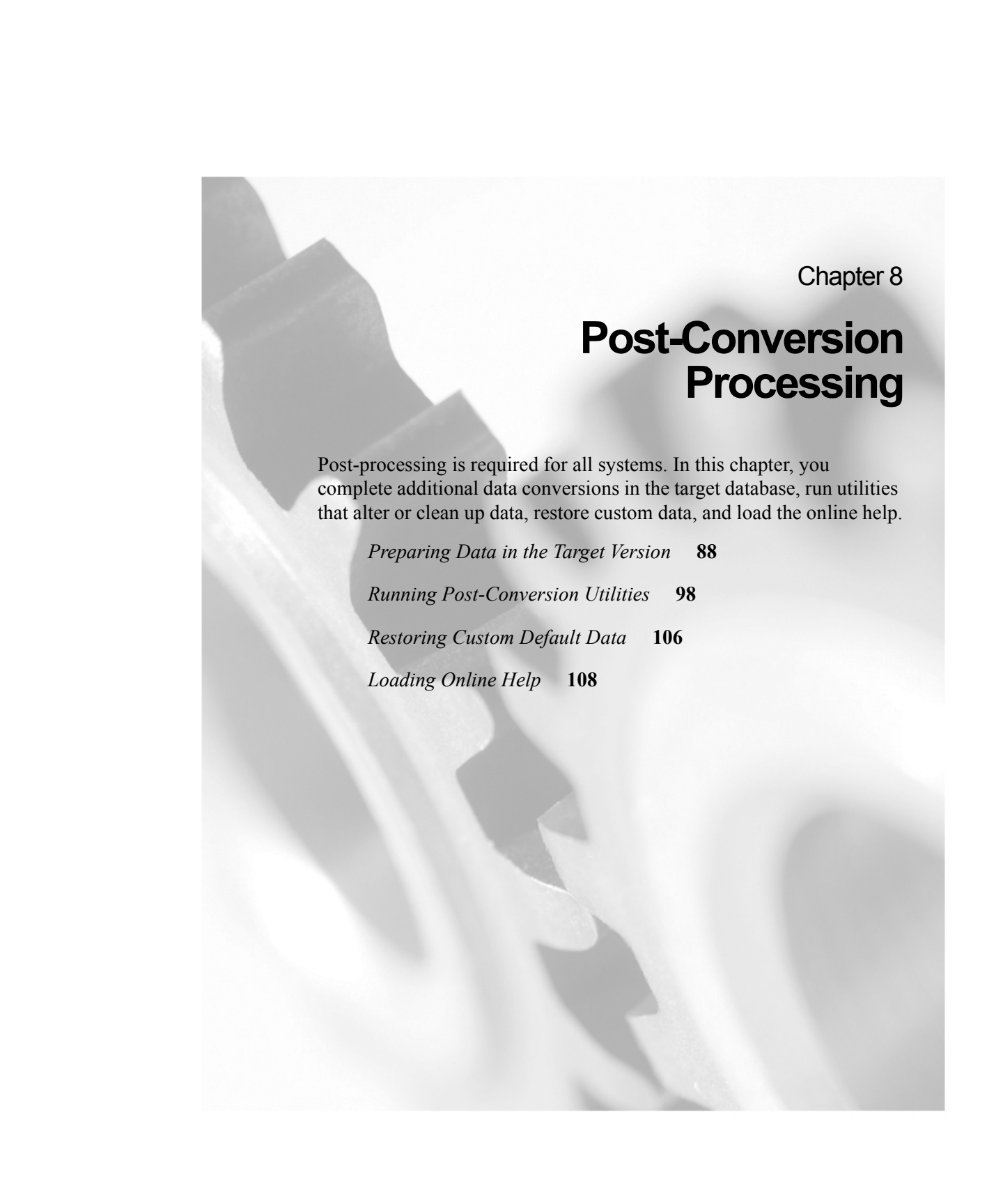
▶ See Chapter 11, “Resolving Conversion Errors,” on page 195.

Truncating the Before-Image File

Truncating the before-image file ensures all data in the database is synchronized.

- 1 Run the following command:

```
$DLC/bin/proutil /TVInstallDir/db/SchemaHolder -C
truncate bi -G 0
```


The background of the page features a grayscale image of several interlocking gears. The gears are of different sizes and are positioned in a way that creates a sense of depth and mechanical complexity. The lighting is soft, highlighting the teeth of the gears and casting gentle shadows.

Chapter 8

Post-Conversion Processing

Post-processing is required for all systems. In this chapter, you complete additional data conversions in the target database, run utilities that alter or clean up data, restore custom data, and load the online help.

Preparing Data in the Target Version **88**

Running Post-Conversion Utilities **98**

Restoring Custom Default Data **106**

Loading Online Help **108**

Preparing Data in the Target Version

Depending on which MFG/PRO features you plan to implement, complete the appropriate steps in this section. You must make these preparations in order for the target version programs to run correctly.

▶ See “Creating a Target Version Environment” on page 48.

Perform all data preparation in a target version MFG/PRO session. To launch a target version session, complete the following steps.

Preliminary Setup

- Modify the `.profile` for user `mfg` to:
 - Set the `DLC` variable to the Progress 9.1 installation directory.
 - Set `ORACLE_HOME` and `ORACLE_SID` to the eB2 database for Oracle conversions.
- Log in to MFG/PRO eB2 as `mfg`.
- Start the target version Oracle instance and mount the Oracle database. Verify that the Oracle listener is active.
- Launch a client session using the target version client startup script:

```
client.Production
```

Co-products/By-products Preparation

Complete these steps if you plan to implement Co-products/By-products.

Note You must run this conversion before processing any work orders.

- 1 Create the Mix Variance accounts used by the Co-products/By-products function. Create the appropriate accounting information using the standard General Ledger setup functions.
- 2 Update System/Account Control (36.1) with the new Mix Variance account information.
- 3 If a product line requires a Mix Variance account different from the one set in System/Account Control, update just those product lines where the Mix Variance account differs from the system default.

SSM Preparation

Complete these steps if you plan to implement SSM:

- 1 In MFG/PRO 7.3 and 7.4, coverage levels were set by service charge types. This is obsolete in SSM. Instead, you have two alternatives:
 - Redefine your coverage levels after conversion using the new features of SSM.
 - Set up codes in the target version that the conversion program can use to map your service charge types into new SSM definitions.

Set up at least three invoice sort codes using Invoice Sort Code Maintenance (11.21.5). Create at least one code of each type: Labor, Expenses, and Items. Set up more codes if you choose.

Service Charge Type	Invoice Sort Name	Invoice Sort Type
Items	Items	I
Labor	Labor	L
Expenses	Expenses	E
Travel	Travel Expenses	E
Miscellaneous Items	Miscellaneous Items	I

For information on codes and service limits, see *User Guide Volume 8: Service/Support Management*.

- Note** Travel expenses may be included in the Expenses invoice sort, and Miscellaneous Items may be included in the Items invoice sort.
- 2 Five new service accounts were added to the accounts associated with product lines. If you want the conversion to supply account numbers and cost centers for these accounts for existing product lines, define default service accounts in System/Account Control (36.1).
 - 3 Consider the setting you want for the new PO Required field.

The PO Required field indicates that this customer or end user must supply a purchase order number. End users inherit the value of this field from the customer they are related to.

If you want the SSM conversion program to set this value to something other than No for end users, modify the value for their customer in Customer Maintenance (2.1.1).

Currency Conversion

If you are converting from MFG/PRO 7.3 or 7.4, perform one of the following procedures before processing transactions in the target version.

Without Tax Management or GL Report Writer

Perform the following procedure if you are converting from Version 7.3 or 7.4 and do not use Global Tax Management or the GL Report Writer:

- 1 Open Rounding Method Maintenance (36.2.9) and verify that rounding methods 0, 1, and 2 exist. Record the rounding description for each rounding method.
- 2 Open Currency Maintenance (26.1). For each currency, assign the appropriate rounding method in the Rounding Method field. Use the method that matches the rounding factor in your source version.

Example If the rounding factor you used was set to 2 in your source version, set the rounding method to 2 (round to hundredths).

If your rounding factor was blank in your source version, use the default rounding method of 2 (round to hundredths).

▶ See *User Guide Volume 9: Manager Functions*.

Important The following may cause an imbalance to GL accounts due to the rounding differences:

- Changing the rounding unit
- Changing the rounding threshold for a rounding method
- Changing the rounding method assigned to a currency

History, purchase, sales, account receivable, and accounts payable records as well as GL transactions were calculated using the rounding method in your source version. All future transactions are calculated using the rounding method you specify.

With Tax Management or GL Report Writer

Perform the following procedure if you are converting from Version 7.4 and use Global Tax Management or the GL Report Writer.

To complete these steps you should have run Rounding Method Report (2.13.1.19) in your source version environment:

▶ See “Currency Conversion (7.4 only)” on page 29.

- 1 Open Rounding Method Maintenance (36.2.9) and verify that rounding methods 0, 1, and 2 exist. Use your source version Rounding Method Report to define any additional rounding methods you had in your source version. Record the rounding description for each rounding method.

Warning The rounding methods you apply affect transactions throughout the system. If you modified the default rounding methods in your source version for tax purposes, be aware that all transactions use these methods.

- 2 Open Currency Maintenance (26.1). For each currency, assign the appropriate rounding method in the Rounding Method field. Use the method that matches the rounding factor in your source version.

Example If the rounding factor you used was set to 2 in your source version, set the rounding method to 2 (round to hundredths).

If your rounding factor was blank in the source version, use the default rounding method of 2 (round to hundredths).

Important The following may cause an imbalance to GL accounts due to the rounding differences:

▶ See *User Guide Volume 9: Manager Functions*.

- Changing the rounding unit
- Changing the rounding threshold for a rounding method
- Changing the rounding method assigned to a currency

History, purchase, sales, account receivable, and accounts payable records as well as GL transactions were calculated using the rounding method in your source version. All future transactions are calculated using the rounding method you specify.

Global Shipping Preparation

Complete these steps if you plan to implement Global Shipping:

▶ See *User Guide Volume 9: Manager Functions*.

- 1 Each pre-shipper, shipper, and master bill of lading that cannot be renumbered must have a valid NRM sequence. To be considered valid, a shipping document number must match the format of an NRM sequence of the appropriate dataset—as though the NRM sequence was used initially to issue the number. Create as many NRM sequences as necessary to account for all existing pre-shipper, shipper, and master bill of lading numbers that cannot be renumbered.

Note Shipping documents with numbers that do not match a valid NRM sequence are renumbered by the conversion utility.

- 2 The conversion creates company address records for all shipping sites without corresponding address records. All fields in the new address records are copied from the default company address specified in Sales Order Control (7.1.24). To use different company addresses, either create new address records prior to running the conversion or edit the address records after the conversion.

Flow Scheduling Preparation

▶ See “MRP to Repetitive Approval” on page 99, for additional details.

If you have set up generalized codes for the Purchase/Manufacture field, you must add W (flow) and (L) line manufactured as valid codes for field `pt_pm_code` using Generalized Codes Maintenance (36.2.13). You can modify Purchase/Manufacture codes for existing items one at a time using item maintenance functions (1.4.1, 1.4.7, and 1.4.17), or use a batch load file to update some or all of them automatically.

European Accounting Preparation

The EA conversion routine can, depending on what is set up in the source database, create address master records (`ad_mstr`) with address codes prefixed BK and then a six-digit sequence number. Use Address Code Change (2.11) to update records after performing the conversion.

The conversion may also (depending on the source data) create inventory movement code master records with a transaction type of UNKNOWN. Correct these to a valid current MFG/PRO transaction type after conversion.

Running Target Version Conversions

The target version data conversion includes many programs that you can run independently of each other.

- 1 Change to *TVInstallDir* and start MFG/UTIL:

```
cd TVInstallDir
./mfgutil
```

- 2 In MFG/UTIL, select Database|QAD Conversion Shell.

- 3 From MFG/CONV, select Conversions|Target Programs List.

- 4 A list of optional target version conversion programs displays. The programs in this list are based on your source version.

Use the Spacebar to select the optional target version conversion programs you want to run based on the MFG/PRO features you are implementing. Each of the conversions, required or optional, is listed by version in the tables at the end of this set of steps. In addition, the conversions are described in Chapter 1, “Planning a Conversion,” on page 5.

- 5 After you select the optional target version conversion programs you want to run, choose Run Selected in the Target Program List screen.

A Question screen displays listing the required target version conversion programs for your conversion. These programs are based on your source version database.

- 6 Choose Yes in the Question screen to run both the target version conversion programs required for your conversion and the optional programs you selected.

- 7 When the conversion programs complete, exit MFG/CONV.

Conversions from Versions 7.3 or 7.4

For conversions from Versions 7.3 or 7.4, Table 8.1 lists the target version conversion programs in the order in which they are run.

Table 8.1
Target Conversion
Programs for 7.3/
7.4

Program	Title	Feature	Req?
tvssaddet.p	Service contract details	SSM	Yes
tvssarmst.p	Service contract serial number masters	SSM	Yes
tvcmcd85.p	Corporate commodity codes update 1	Commodity Codes	Yes
tvcomcd.p	Corporate commodity codes update 2	Commodity Codes	Yes
tvtp6.p	Menu update to qad_wkfl		Yes
tvtp8.p	Multi-language updates	Multi-language	Yes
tvmea.p	Multi-entity accounting	Financials	Yes
tveas.p	Extended account structures	Financials	Yes
tvcuex.p	Pre-Euro data conversion	Euro	Yes
tvtri.p	Euro data conversion	Euro	Yes
tvmrp.p	MRP-to-Repetitive updates	MRP	Yes
tvvphvpo.p	Voucher history conversion	Financials	Yes
tvtp2.p	Fix RCPT STAT Work Orders Note: Some errors may be generated if you have qad_wkfl records that are already converted to the Advanced Repetitive format. Ignore these errors.	Compliance	No
tvtp3.p	Mix variance on product lines and work orders	Manufacturing	No
tvtp4.p	Price list conversion	Price Lists	No
tvtp5.p	Price list history conversion	Price Lists	No
tvtp7.p	Bank detail conversion	Financials	No
tvtp9.p	Field Service conversion	SSM	No
tvers.p	Evaluated receipts settlement	ERS	No
tv86gs1.p	Global shipping conversion	Global Shipping	No
tvpc0.p	PCC conversion	Product Change Control	No
tvecg.p	EDI ECommerce Conversion	EDI ECommerce	No
tvgl091.p	Globalization conversion	Enhanced Financials	No
tvgtm.p	GTM conversion	Tax Compliance	No
tvssm2.p	Service contract conversion	SSM	Yes

Program	Title	Feature	Req?
tvmp1.p	MRP Detail conversion	MRP	Yes
tvls91.p	Linked-site costing	Costing	Yes
tvusr92.p	User master conversion	Admin	Yes
tvea.p	European Accounting	European financials	No
tvconsign.p	SO master conversion	Consignment	Yes

Conversions from Version 8.5

For conversions from Version 8.5, Table 8.2 lists the target version conversion programs in the order in which they are run.

Program	Title	Feature	Req?
tvssaddet.p	Service contract details	SSM	Yes
tvssarmst.p	Service contract serial number masters	SSM	Yes
tvcmcd85.p	Corporate commodity codes update 1	Commodity Codes	Yes
tvcomcd.p	Corporate commodity codes update 2	Commodity Codes	Yes
tvmea.p	Multi-entity accounting	Financials	Yes
tveas.p	Extended account structures	Financials	Yes
tvcuex.p	Pre-Euro data conversion	Euro	Yes
tvtri.p	Euro data conversion	Euro	Yes
tvmp.p	MRP-to-Repetitive updates	MRP	Yes
tvvphpvo.p	Voucher history conversion	Financials	Yes
tvcupcnv.p	Cumulative shipping reset	Release Management	Yes
tv86gs1.p	Global shipping conversion	Global Shipping	No
tvpc0.p	PCC Conversion	Product Change Control	No
tvecg.p	EDI ECommerce conversion	EDI ECommerce	No
tvgl91.p	Globalization conversion	Enhanced Financials	No
tvgtm.p	GTM conversion	Tax Compliance	No
tvssm2.p	Service contract conversion	SSM	Yes
tvmp1.p	MRP Detail conversion	MRP	Yes
tvls91.p	Linked site costing	Costing	Yes
tvusr92.p	User master conversion	Admin	Yes
tvea.p	European Accounting	European Financials	No
tvconsign.p	SO master conversion	Consignment	Yes

Table 8.2
Target Conversion
Programs for 8.5

Conversions from Version 8.6

For conversions from Version 8.6, Table 8.3 lists the target version conversion programs in the order in which they are run.

Table 8.3
Target Conversion
Programs for 8.6

Program	Title	Feature	Req?
tv saddet.p	Service contract details	SSM	Yes
tv sarmst.p	Service contract serial number masters	SSM	Yes
tv comcd.p	Corporate commodity codes update 2	Commodity Codes	Yes
tv mea.p	Multi-entity accounting	Financials	Yes
tv eas.p	Extended account structures	Financials	Yes
tv cuex.p	Pre-Euro data conversion	Euro	Yes
tv tri.p	Euro data conversion	Euro	Yes
tv mrp.p	MRP-to-Repetitive updates	MRP	Yes
tv phpvo.p	Voucher history conversion	Financials	Yes
tv cupcnv.p	Cumulative shipping reset	Release Management	Yes
tv site.p	Supplier performance	PRO/PLUS	No
tv ecg.p	EDI ECommerce Conversion	EDI ECommerce	No
tv glo91.p	Globalization Conversion	Enhanced Financials	No
tv gtm.p	GTM Conversion	Tax Compliance	No
tv ssm2.p	Service contract conversion	SSM	Yes
tv mrp1.p	MRP Detail conversion	MRP	Yes
tv lsc91.p	Linked site costing	Costing	Yes
tv usr92.p	User master conversion	Admin	Yes
tv ea.p	European Accounting	European financials	No
tv consign.p	SO master conversion	Consignment	Yes

Conversions from Version 8.6E

For conversions from Version 8.6E, Table 8.4 lists the target version conversion programs in the order in which they are run.

Table 8.4
Target Conversion
Programs for 8.6E

Program	Title	Feature	Req?
tv saddet.p	Service contract details	SSM	Yes
tv sarmst.p	Service contract serial number masters	SSM	Yes
tv mea.p	Multi-entity accounting	Financials	Yes

Program	Title	Feature	Req?
tveas.p	Extended account structures	Financials	Yes
tvmrp.p	MRP-to-Repetitive updates	MRP	Yes
tvvphpvo.p	Voucher history conversion	Financials	Yes
tvcupcnv.p	Cumulative shipping reset	Release Management	Yes
tvecg.p	EDI ECommerce conversion	EDI ECommerce	No
tv glo91.p	Globalization conversion	Enhanced Financials	No
tvssm2.p	Service contract conversion	SSM	Yes
tvmrp1.p	MRP Detail conversion	MRP	Yes
tvlsc91.p	Linked site costing	Costing	Yes
tvusr92.p	User master conversion	Admin	Yes
tvecg92.p	ECommerce turnaround conversion	EDI ECommerce	Yes
tvea.p	European Accounting	European financials	No
tvconsign.p	SO master conversion	Consignment	Yes

Conversions from Version 9.0

For conversions from Version 9.0, Table 8.5 lists the target version conversion programs in the order in which they are run.

Program	Title	Feature	Req?
tv saddet.p	Service contract details	SSM	Yes
tv sarmst.p	Service contract serial number masters	SSM	Yes
tv mea.p	Multi-entity accounting	Financials	Yes
tveas.p	Extended account structures	Financials	Yes
tvmrp.p	MRP-to-Repetitive updates	MRP	Yes
tvvphpvo.p	Voucher history conversion	Financials	Yes
tvcupcnv.p	Cumulative shipping reset	Release Management	Yes
tvecg.p	EDI ECommerce conversion	EDI ECommerce	No
tv glo91.p	Globalization conversion	Enhanced Financials	No
tvssm2.p	Service contract conversion	SSM	Yes
tvmrp1.p	MRP Detail conversion	MRP	Yes
tvlsc91.p	Linked site costing	Costing	Yes
tvusr92.p	User master conversion	Admin	Yes
tvecg92.p	ECommerce turnaround conversion	EDI ECommerce	Yes

Table 8.5
Target Conversion
Programs for 9.0

Program	Title	Feature	Req?
tvecg92v.p	ECommerce transformation conversion	EDI ECommerce	Yes
tvecg92e.p	ECommerce cross reference conversion	EDI ECommerce	Yes
tvea.p	European Accounting	European Financials	No
tvconsign.p	SO master conversion	Consignment	Yes

Conversions from Version eB

For conversions from Version eB, Table 8.6 lists the target version conversion programs in the order in which they are run.

Table 8.6
Target Conversion
Programs for eB

Program	Title	Feature	Req?
tvssaddet.p	Service contract details	SSM	Yes
tvssarmst.p	Service contract serial number masters	SSM	Yes
tvssm2.p	Service contract conversion	SSM	Yes
tvmp1.p	MRP Detail conversion	MRP	Yes
tvls91.p	Linked site costing	Costing	Yes
tvmea.p	Multi-entity accounting	Financials	Yes
tvvphpvo.p	Voucher history conversion	Financials	Yes
tvusr92.p	User master conversion	Admin	Yes
tvecg92.p	ECommerce turnaround conversion	EDI ECommerce	Yes
tvecg92v.p	ECommerce transformation conversion	EDI ECommerce	Yes
tvecg92e.p	ECommerce cross-reference conversion	EDI ECommerce	Yes
tvkb2.p	Kanban 2 conversion	Kanban	Yes
tvea.p	European Accounting	European financials	No
tvconsign.p	SO master conversion	Consignment	Yes

Running Post-Conversion Utilities

- 1 Start a target version MFG/PRO session.
- 2 Run the database sequence initialization program, `utsequp.p`. This program initializes sequences used in MFG/PRO, including those that existed in the source version and any introduced in the target version. Type `utsequp.p` at any menu-level prompt and press Go.

- 3 Run the same reports you ran against the source version database and compare them. There should be no data conflicts.
- 4 Perform a full system backup.

For a list of data verification reports, see “Running Data Verification Programs” on page 32.

MRP to Repetitive Approval

To implement the MRP to Repetitive Approval functionality, complete the following steps:

- 1 If you set up generalized codes for the Pur/Mfg field, you must add L (line manufactured) as a valid item code for that field in Generalized Code Maintenance (36.2.13). You may also want to set up generalized codes for the primary and secondary run sequence fields.
- 2 There are two options for converting existing item Pur/Mfg codes to L (line manufactured). Existing item codes can be changed individually from manufactured, purchased, or any other value to the new line manufactured code using Item Master Maintenance (1.4.1). Optionally, you can use the following instructions to create a CIM file to change any or all of your existing item codes programatically:

- a Create a list of items and their corresponding item numbers that you want to designate with the line manufactured (L) code.
- b For each item number, use a text editor to create a CIM file. To update item codes, use either Item Planning Maintenance (1.4.7, ppptmt02.p) or, for site-specific items, Item-Site Planning Maintenance (1.4.17, pppsm02.p).

For more information, see the CIM interface chapter in *User Guide Volume 9: Manager Functions*.

In the following example for Item Planning Maintenance (ppptmt.p), item number 10-10000 is entered, hyphens are used to navigate to the Pur/Mfg field, and an L is entered for that item.

```
@@batchload ppptmt.p
"10-10000"
----- "L"
@@end
```

- c When you complete the CIM file, save it in the MFG/PRO client working directory.
- d Perform a CIM data load using this file.

Work Center Category Conversion (7.4 only)

If you are converting from 7.3L or 7.4F or before, run `utscconv.p` to consolidate the Labor Burden and Machine Burden work center cost categories to Burden. Run the program from the menu line in MFG/PRO eB2.

Forecast Simulation Conversion (7.4 to eB, Oracle only)

Run the Simulation Criteria Correction Utility (22.7.25.1), `uxffscfx.p`, to support a new selection criteria default format for the Forecast Simulation module in eB2. This program can be run more than once without harm to the data.

ISO 8601 Utilities

If you are converting from MFG/PRO 8.6D or above, skip this section.

The International Standards Organization (ISO) defines the first week of a new calendar year as the first Thursday in January (ISO 8501, paragraph 3.17). Prior to MFG/PRO 8.6D, MFG/PRO considered the first Wednesday in January as defining the first week of the year.

Consequently, you must run the ISO 8601 Forecast Conversion (22.26) utility (`utfc8601.p`) and the ISO 8601 Ops Planning Conversion (33.26) utility (`utop8601.p`) to comply with ISO 8601.

Complete the following steps to realign the quantities within the Forecasting/Master Scheduling and Operations Planning modules. As a result of running the utility, the following years will have different start dates: 1981, 1987, 1998, 2004, 2009, 2015, 2026, 2032, 2037, and 2043.

Note These utilities can be run only once. If your data has already been converted, the utilities do not reconvert it.

- 1 Run the `utfc8601.p` utility. This remaps all existing quantities in the Forecasting/Master Scheduling module to correlate with the week for which they were calculated prior to the conversion. At any menu-level prompt, enter `utfc8601.p` and press Go.

This utility lets you apply a percentage of the forecast for the last week in a year previous to an affected year to the first week of the new year. For example, you can apply 50% of the forecast for the last week of 2003 to the first week of 2004.

- 2 Run the `utop8601.p` utility. This remaps all existing quantities in the Operations Planning module to correlate with the week for which they were calculated prior to the conversion. At any menu-level prompt, enter `utop8601.p` and press Go.

This utility lets you apply a percentage of the forecast for the last week in a year previous to an affected year to the first week of the new year. For example, you can apply 50% of the forecast for the last week of 2003 to the first week of 2004.

Global Shipping Post-Conversion

- 1 Determine if any custom shipper print programs are in use. Custom shipper programs have the form `rcrp13NN.p`, where `NN` is any two-character form code string, except `01` (`rcrp1301.p` is the pre-8.6 standard print program for form code 01). A document format for each custom shipper print program is created during the conversion.
- 2 If any custom shipper print programs exist, determine which of the existing shippers and pre-shippers would normally be printed with a custom program. Using the Shipper Document Format Mass Change Utility (2.18.25), assign document formats to existing shippers as necessary. The conversion assigns the standard document form code 01 to all shippers. The mass change utility is needed only for those shippers requiring a custom print program.
- 3 The conversion utility creates company address records for all shipping sites without corresponding address records. All fields in the new address records were copied from the default company address specified in Sales Order Control (7.1.24). If you want to use

information other than the default company address and you did not create new address records prior to running the conversion, edit the address records now.

SSM Post-Conversion

▶ See “Field Service Reports (7.4 only)” on page 29.

Use the following instructions to correct errors reported in the source version reports for the Field Service functionality (`fscon1` and `fscon3`).

- 1 If `fscon1.log` shows an overlap condition (coverage overlaps coverage provided by another contract line), sign on to your target version system and either alter contract line coverage dates or delete one of the line items to eliminate the overlap.

Note Overlapping coverage is prevented to ensure clarity regarding the contract terms and conditions related to a call line item. If two contracts overlap, the second (the one with the higher contract number) will never be found in the coverage search routine executed as part of Call Maintenance.

- 2 If `fscon1.log` shows contract lines with missing lot/serial numbers, and the contract line should provide coverage for specific items, sign on to your target version system and enter the appropriate lot/serial number or numbers in Contract Maintenance.

- 3 Fixing discrepancies reported on `fscon3.log` may require you to perform several steps in your target version environment. Complete the instructions that apply to your situation.
 - Use Installed Base Item Maintenance (`fsisbmt.p`) to specify the appropriate lot/serial number for the item in the installed base. The lot/serial number should be specified in the New Serial field.
 - If the item is referred to by one or more calls, use Call Maintenance (`fscaamt.p`) to modify the lot/serial number.
 - If an item is referred to by multiple service quotes/contracts, not intended to be blanket contracts, use Service Quote/Contract Maintenance (`fsqomt.p` or `fssamt.p`) to change the lot/serial number.

Running Utilities

Use the following instructions to run the MFG/PRO SSM utilities.

- 1 If you chose to convert service charge types, review the resulting service type coverage.
- 2 If you use engineer scheduling, execute the Rebuild Engineer Schedules utility (11.25.6) to recalculate engineer schedules.
- 3 If you maintain an installed base, execute the Installed Config Table Rebuild utility (11.3.23) to rebuild installed base parent/child relationship information correctly.
- 4 From the following table, determine which utilities you need to run and execute them by choosing the menu number or typing the program name at any menu prompt:

Utility	Menu	Description
uxengad.p	11.13.25	Initialize Engineer Addresses
uxsadrpl.p	11.5.13.25.3	Initialize List Prices
uxeusort.p	11.25.11	Update End User Sort Name
uxfsrts1.p	11.25.12	Update Ship Type for RTS
uxrmafix.p	11.25.13	RMA Service Contract Utility
uxrmdat.p	11.25.10	RMA Ship Date Correction

▶ See *User Guide Volume 8: Service/Support Management* for information on the conversion utilities used to implement the time zone feature.

- 5 If converting SSM from MFG/PRO 8.5, run these utilities as well:

Utility	Menu	Description
uxfs8601.p	36.27.3	Service GTM Conversion: This converts variables in the Billing Detail and Billing History data used to support GTM and Canadian taxes into database fields. Run this utility in update mode no more than once.
uxfsusr.p	11.25.14	Load User Preferences: Run only if you previously defined service user preferences in Service/Support User Preferences (11.21.23) or User Maintenance (36.3.18). In Version 8.5, service preferences were stored in the usr_mstr. In Version 8.6, they are stored in a new table reserved for SSM (fusr_mstr). This utility moves preferences from one table to the other.

Utility	Menu	Description
uxusertz.p	11.21.22.25	Initialize User TZ from Engineer: Only required if you used the MTZ option in Version 8.5. In 8.5, users had to be set up as engineers to define a time preference. In 8.6, time zone has been added to Service/Support User Preferences (11.21.23). This utility searches engineer records and defines corresponding user preferences for them.
uxj1b6.p	11.25.16	J1B6 Utility: This utility must be run after installing a release containing patch J1B6 regardless of whether you are going to activate MTZ. It initializes two new date/time fields for every call record, deletes engineer schedules with an unavailable status, and deletes engineer call tracking records, which are no longer used for calculating availability.

Additional SSM Post-Conversion Notes

On-call scheduling did not work correctly prior to Version 8.5; there is no way to correctly convert any engineer schedules that were marked as on-call before. To use the new on-call scheduling feature in SSM, see *User Guide Volume 8: Service/Support Management*.

As of Version 8.5, RMA issue lines are priced exactly like sales order lines. The sales order pricing conversion will convert price lists from the old price list structure to the new sales order pricing format. Pricing on existing RMA lines should be unaffected unless you specify Yes to the Reprice field in RMA Maintenance.

Sales Order Price Lists Post-Conversion

If you ran the conversion program `tvvp4.p` (Price List Conversion), you must run the Analysis Code Detail Build (1.8.19) to process the analysis codes created by `tvvp4.p`. The Analysis Code Detail Build generates the link between the analysis codes and the actual customers.

Product Change Control (PCC) Post-Conversion

After running the PCC conversion, open the following PCC programs to verify that the enable field is set to Yes:

- Enable PCC Routing Maintenance (14.22)
- Enable PCC Item Spec Maintenance (19.1.22)
- Enable PCC Structure Maintenance (13.13.22)
- Enable PCC Formula Maintenance (15.22)

Euro Data Post-Conversion

- 1 Default account and cost center information may not be applicable to all currencies, so run Currency Maintenance (26.1) to customize exchange gain, loss, and rounding accounts and cost centers.
- 2 For MFG/PRO source versions 7.3 or 7.4, check to ensure the proper rounding method is used for each currency. The default method rounds two digits to the right of the decimal point for all currencies.
- 3 To implement euro functionality, use EMU Currency Maintenance (26.19) to define the relationship between the union currency, the euro, and each member currency.

Note If the Euro Toolkit was implemented in your source version, complete step 3 to verify your data.

Corporate Commodity Codes Post-Conversion

Run Commodity Code Maintenance (1.4.19) and verify your corporate commodity codes and part numbers using your source version commodity code sample.

Operations Planning Data Post-Conversion

If you are converting data from an earlier version of the Operations Planning module, you must run the programs listed below.

- Recalculate Summary Records (33.25.1)
- Production Line Update (33.25.3)

Supplier Performance Post-Conversion

- 1 Run Supplier Performance Data Report (5.15.14) and verify your target version data against your source version report.
- 2 Run Summary Data Report (5.15.20) and verify your target version data against your source version report.

8.5D Source Database Conversions

Run the following utilities related to Distribution and Manufacturing programming patches (ECOs). If you converted from an 8.5E or higher source version database, do not run them again.

ECO	Menu	Label	Program
G2G2	36.25.64	Fix commission from qad_wkfl	uxarcomm.p
G2G1	16.25.15	WO Routing Actual Setup Utility	uxwooput.p

7.3 Source Database Conversions

Run the Populate vpo_det utility for 7.4 (28.25.4 or uxvpodet.p). This utility populates vpo_det so that purchase orders appear correctly on Voucher Inquiry (28.2).

Restoring Custom Default Data

▶ See “Preserving Custom System Data” on page 35.

After you have completed the conversion, follow these steps to restore your custom changes to the MFG/PRO default data.

Custom Menus and Messages

You must reenter your custom menu and message information into the target version. To help identify what your custom changes were, you should have printed the following reports from MFG/CONV:

- svmndrep (Menu data)
- svmsgrep (Message data)
- svlndrep (Language detail)
- svlngrep (Language master)

MFG/PRO Custom Data

If you have created custom browses in the source database, each is linked to a browse program in MFG/PRO. To relink your custom browses where the browses have been changed or replaced, complete the following steps.

- 1 Open Browse Maintenance (36.20.13) from either a character or Windows client session. For each of your custom browses:
 - a Select a custom browse name. Press Go to open Browse Data.
 - b Select the Power Browse or Look-up Browse option. A power browse includes all of the browse features, and a look-up browse includes a subset of the browse features.
 - c Choose OK to store your changes. For each custom browse, MFG/PRO creates a source code program, which is compiled in a later step. The naming convention for the source code program is: `xxbrnnn.p` -or- `xxlunnn.p`, where:
 - `xx` = First two characters of the browse name
 - `br` = Indicates a power browse
 - `lu` = Indicates a look-up browse
 - `nnn` = system-assigned number
 - d Exit Browse Maintenance.
- 2 Open Drill Down/Lookup Maintenance (36.20.1). For each custom drill-down record that references a browse (check the Procedure to Execute field), change the old browse program name to the new browse name using Chapter 12, "Modified Browse Program Names," on page 215.
- 3 Exit Drill Down/Lookup Maintenance.
- 4 Open Menu Substitution Maintenance (36.20.6). Reenter your source version custom menu substitutions.
- 5 If you have any other modifications, as opposed to additions, you must reenter them. Keep a copy of these modifications because they may be overwritten in future releases.
- 6 Exit the MFG/PRO session.

◆ For information on compiling with MFG/UTIL, see the installation guide for your database.

- 7 Compile each browse program using MFG/UTIL.
 - a Change to *TVInstallDir* and start MFG/UTIL


```
cd TVInstallDir
./mfgutil
```
 - b In MFG/UTIL, select Programs|Compile Procedures.
 - c Complete the dialog box, and choose Compile.

Loading Online Help

Complete the following instructions to load the MFG/PRO online help.

Default Target Version Help

Complete the following instructions to load the target MFG/PRO field and procedure help:

- 1 Start a target version session and select Field Help Load (36.4.19).
- 2 In the Language field, enter the language code.
- 3 Skip to the Field Help Load File field. Enter the MFG/PRO language directory followed by the help file `fieldhlp.fhd`. For example, for US-English, you would enter: *TVInstallDir/us/fieldhlp.fhd*.

Note If you enter an uninstalled language code, the following message displays: Field Help file not found. Continue with English? Respond with Yes to load the default English field help file. Respond with No to return to the Language field and enter a language code. If you input an invalid language code a second time, the default field help data file is loaded.
- 4 Accept the default value in the following field:


```
Skip loading help with lower status: yes
```
- 5 Press Go to begin the load process. As the load proceeds, the number of records read and loaded displays on the screen.

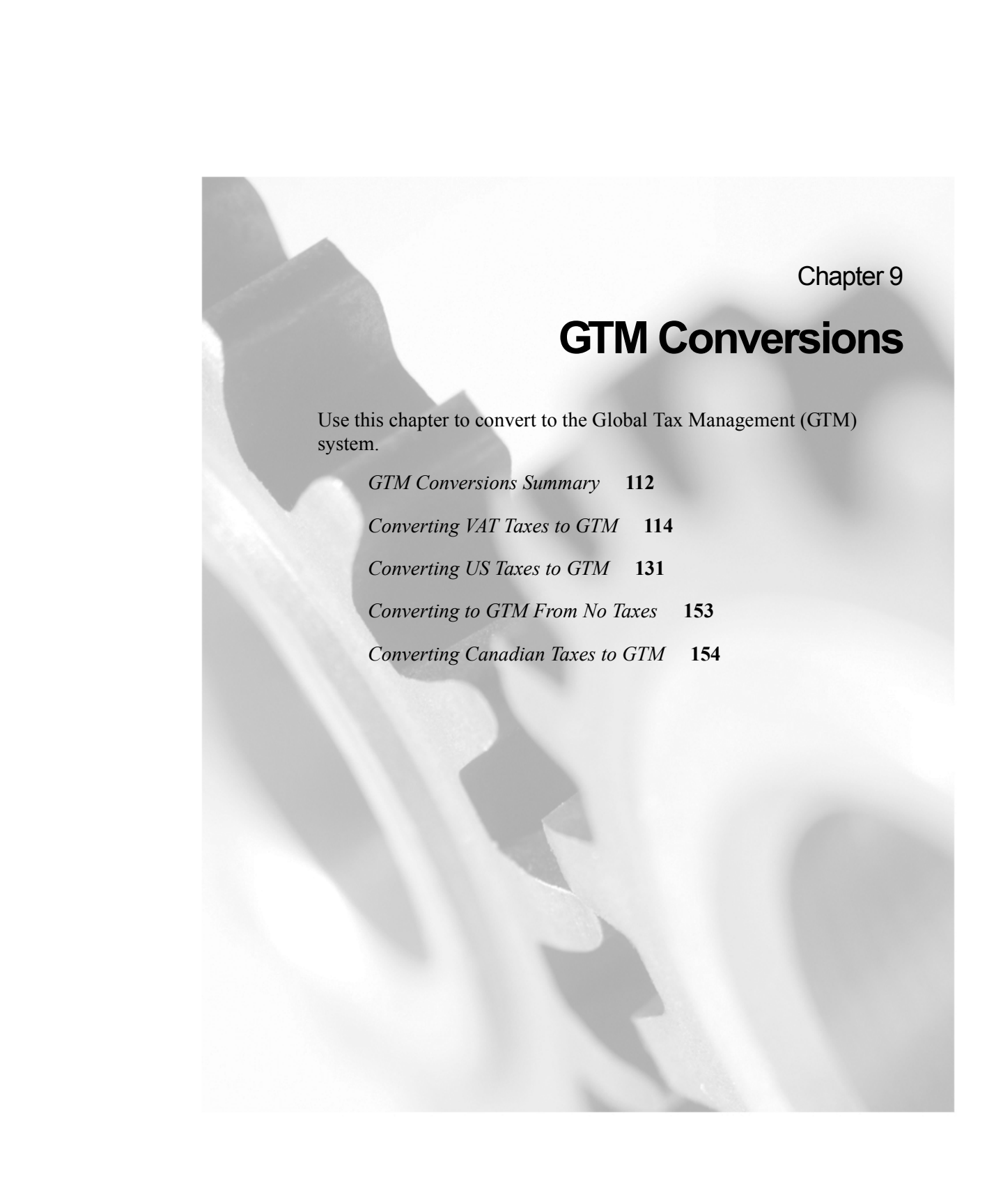
- 6 To implement multiple languages, repeat the preceding steps for each language. In step 3, specify the `fieldhlp.fhd` help file, below the two-letter language code subdirectory, below *TVInstallDir*.

For example, to implement French, you would load the *TVInstallDir/fr/fieldhlp.fhd* help file.

Custom Source Version Help

To load the custom online help you dumped from your source version database in “Preserving Custom System Data” on page 35:

- 1 Start a target version session and select Field Help Load (36.4.19).
- 2 Enter the language code in the Language field.
- 3 Enter `user` as the beginning and ending range in the Text Type and To fields.
- 4 Enter the field help dump file name you specified in “Dumping Custom Online Help, Menus, and Messages” on page 66.
- 5 Press Go to begin the load.

The background of the page features a grayscale image of several interlocking gears. The gears are of different sizes and are positioned in a way that creates a sense of depth and mechanical complexity. The lighting is soft, highlighting the teeth of the gears and creating subtle shadows.

Chapter 9

GTM Conversions

Use this chapter to convert to the Global Tax Management (GTM) system.

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Converting VAT Taxes to GTM **114**

Converting US Taxes to GTM **131**

Converting to GTM From No Taxes **153**

Converting Canadian Taxes to GTM **154**

GTM Conversions Summary

Prior to MFG/PRO eB, MFG/PRO supported four tax processing systems:

- Value-added tax (VAT)
- United States (US) taxes
- Canadian taxes
- Global Tax Management (GTM)

▶ See “Converting to GTM From No Taxes” on page 153.

Note Some companies may not have implemented any tax system, either because they were using an external tax package or had some other alternate method for tracking taxes. In this case, some preparation is still required to convert to GTM and continue without a tax system.

Of the four systems, GTM offers the most precise calculations and the greatest flexibility for calculating taxes for multiple countries. Therefore, MFG/PRO no longer supports regional tax system.

QAD supplies programs with GTM to automate most conversion tasks (Table 9.1). These programs generate GTM codes and update existing MFG/PRO records. They also create records required for tax reporting.

Table 9.1
GTM Conversion
Programs

Menu Number	Program
2.13.22.1	VAT to GTM–Setup
2.13.22.2	VAT to GTM–Masters
2.13.22.3	VAT to GTM–Transactions
2.13.22.5	USA to GTM–Setup
2.13.22.6	USA to GTM–Masters
2.13.22.7	USA to GTM–Transactions
2.13.22.9	CAN to GTM–Setup
2.13.22.10	CAN to GTM–Masters
2.13.22.11	CAN to GTM–Transactions

Pre-conversion Planning

To save time and reduce the likelihood of errors, address the following issues before you start the GTM conversion process:

- **Timing**

Perform the conversion any time in transaction processing. You do not have to close open transactions or post transactions to the general ledger beforehand. However, for a clearer division of reporting, consider converting at the beginning of a new financial period.

To prevent record-contention conflicts, run the conversion programs only when no other users are on the system.

- **Records to Convert**

Determine the range of records to convert. Master records such as customers and items are converted first, followed by transaction records. Records must be converted in the order in which their selection options display on the conversion screen. Finally, transactions that are prerequisites for other transactions must be converted first. For example, purchase order receipts must be converted before their respective vouchers.

The conversion programs select records by number, not creation date or effective date. To convert records for a specific date range, specify the first record number for the starting date and/or the last record number for the ending date.

The conversion programs do not perform cross-checks on your selection of records to convert. For example, for accounts payable, they do not verify that selected payment records are the ones associated with the selected voucher records.

- **Code Naming Conventions**

Each conversion has default naming conventions for GTM tax classes, tax zones, and tax environments. Review these and decide if they are what you want.

- **Integration of GTM Enhancements**

The objective of the conversion is to move your existing tax processing configuration into GTM. You must complete the conversion before you can incorporate new GTM features. There are two reasons for this. First, your current configuration does not have

Tip

Practice running the conversion on a copy of your live database. You can identify problems in existing records, as well as familiarize yourself with the conversion process.

the data to support these features. Second, some of the conversion subprograms expect to encounter specific data values. They will not run correctly if you change these values prematurely.

- Custom Programming

For some situations, custom programming is required. An example of such a situation is the need to merge two VAT class codes to one GTM tax class code without using GTM tax usage codes.

Post-Conversion Procedures

Once you complete the conversion, you still have to exercise some controls to ensure a clean division for pre- and post-GTM reporting:

- Handling of Closed Transactions

Closed transactions that were not included in the conversion should never be reversed or deleted once you start using GTM.

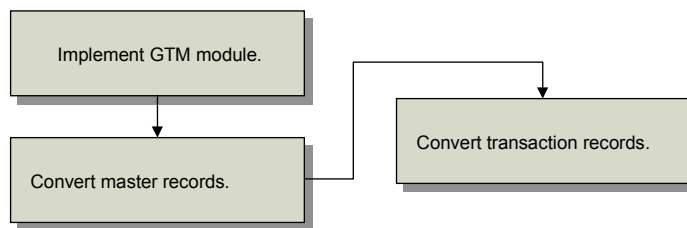
- Effective Date for Tax Reports

Tax reports should be printed with a post-conversion tax date, to exclude transactions you did not bring into GTM.

Converting VAT Taxes to GTM

This section describes converting to GTM from MFG/PRO's VAT system.

Fig. 9.1
VAT to GTM
Conversion Process



The VAT to GTM conversion translates VAT data to GTM equivalents and updates existing MFG/PRO records. Figure 9.1 summarizes the conversion work flow, which revolves around three sets of activities.

Implementing GTM. Implementing GTM for VAT, you make planning decisions and then run a setup program. How this program works depends on whether a country is a member of the European Community. ▶ See page 115.

Converting Master Records. Run a program that populates database tables for customer and supplier addresses, items, product lines, and other master records with GTM data values. ▶ See page 121.

Converting Transaction Records. Run a second program that populates transaction records. All transactions subject to tax are affected, including sales, purchasing, accounts payable, accounts receivable, and service/support management. ▶ See page 125.

Important After each of these activities, review the corresponding reports and audit trails. Mistakes can be pervasive and costly.

Table 9.2 lists the MFG/PRO programs used during the conversion.

Activity	MFG/PRO Programs
Implementing GTM	Country Code Maintenance (2.14.1)
	VAT to GTM–Setup (2.13.22.1)
Converting master records	VAT to GTM–Masters (2.13.22.2)
Converting transaction records	VAT to GTM–Transactions (2.13.22.3)

Table 9.2
MFG/PRO
Programs Used to
Convert VAT to
GTM

Implementing GTM

An automated setup program can create most of the codes you need to implement GTM, based on how your VAT taxes are defined. Before executing this program, you should understand the options it provides and the default logic it uses.

Country Codes and Tax Environments

The first step in implementing VAT taxes in GTM is to ensure that all countries are defined in Country Code Maintenance (2.14.1). Countries that are part of the European Community must have the EC field set to Yes. This is important because two options are available during the automated setup:

- 1 You can create tax zones and tax environments with countries summing into one of two predefined tax zones: a union and non-union zone. To do this, you must specify a code representing the union. By default, this is EU. The system then creates two tax zones—EU and NON-EU. These zones correspond to special country code values of ~1 (EU) and ~0 (NON-EU).

This approach results in a minimum number of tax environments:

- One environment for each country defined in the country master.
 - IN-EU for transactions within the union but outside the borders of one country.
 - FROM-EU for transactions between a member of the union and a nonmember.
 - TO-EU for transactions from a nonmember to a member of the union.
 - NON-EU for transactions between two countries that are both nonmembers of the union.
- 2 You can create tax zones and environments based on each defined country without summing into a union. This option results in the maximum number of tax environments—one for each combination of ship-from and ship-to countries. If, for example, you do business with 10 countries, 100 tax environments are created.

If you choose this option, you do not need to specify a union code, and the setup program does not create the EU and NON-EU zones or the ~1 and ~0 countries.

Defining Custom Tax Class and Usage Codes

By default, the conversion setup generates tax classes that correspond to your VAT classes, without associated GTM tax usage codes. You can override this by creating your own map for the setup program and specifying it in the Class File field. The same class file is also referenced in the programs that convert master data and transaction records.

Class file for custom Tax Class and Tax Usage codes

txvatcnv.p b+ 2.13.22.1 VAT to GTM - Setup 05/09/00

Delete Previous GTM: <u>no</u>		
Convert VAT Masters: <u>no</u>		
Country Code: _____		
Union Code: <u>EU</u> (blank to use country code combinations)		
Last Tax Code: <u>EU000000</u>		
Generated Separator: <u>=</u>		
Class File: _____		
Display Status: <u>no</u>		
From union country	To same union country	Taxable: <u>yes</u>
	To different union country	Taxable: <u>no</u>
	To non-union country	Taxable: <u>no</u>
From non-union country	To same non-union country	Taxable: <u>no</u>
	To different non-union country	Taxable: <u>no</u>
	To union country	Taxable: <u>no</u>
		Output:
		Batch ID:

Fig. 9.2
Class File in VAT to GTM-Setup (2.13.22.1)

You should create a class file if:

- Your company plans to change tax class codes during the conversion.
- Within a tax class, a company can be taxed based on its nature of operation or the way it intends to use an item. In GTM, these conditions are identified by tax usage codes.

The class file is an ASCII file with text strings in the following format:

```
"Current VAT Class" "GTM Tax Class" "GTM AP Tax Usage"  
"GTM AR Tax Usage"
```

GTM tax classes are a maximum of three characters, and tax usage codes are eight characters. An unused optional value is represented by a null string (either "" or "").

The class file can have any name or extension. However, code values in .csv files must be separated by commas instead of blank characters. The file must be located in the home directory for the Progress session.

The class file accommodates companies that use different tax class and/or tax usage codes for AP and AR processing. If you use one set of codes for both kinds of tax processing, simply specify the same usage code for both.

Tip
A .csv file is a Windows comma-separated value file format for saving values recorded in a spreadsheet.

Example Your current VAT classes are 1 and 2. You want to map VAT class 1 to GTM tax class A, tax usage code FOOD, and VAT class 2 to GTM tax class B, tax usage DRUG.

```
"1"  "A"  "FOOD" "FOOD"
"2"  "B"  "DRUG" "DRUG"
```

AP and AR usage codes are applied differently during the conversion to master records and transactions.

Table 9.3
AP and AR Usage
Codes

Usage Code	Applied to...
AP Usage Codes	The master conversion applies AP usage codes to supplier records. The transaction conversion uses them to update purchasing and accounts payable records.
AR Usage Codes	The master conversion applies AR usage codes to customers, warranty types, and contract types. The transaction conversion uses them to update sales, accounts receivable, and service/support management transactions.

Processing Logic

VAT to GTM—Setup creates records as described in Table 9.4.

Table 9.4
New GTM Records

Type of Record	Explanation
Tax zones	Based on the value of Union Code, setup builds the tax zone hierarchy for EU and non-EU countries in your current system or tax zones for all countries.
Tax types	Setup creates a tax type of VAT and NON-TAX.
Tax environments	Based on the value of Union Code, setup either generates sums-into tax environments or environments for all ship-to/ship-from country combinations.
Tax rates	Based on VAT rates, setup generates tax rates for the tax jurisdictions and percentages used in your current system, as well as a nontaxable tax rate.
Tax classes	By default, setup generates tax classes based on your current VAT classes and a NOT-TAX class for nontaxable transactions. To create different classes, define a class file (see “Defining Custom Tax Class and Usage Codes” on page 117).
Tax usages	By default, setup does not generate tax usages. However, you can create these with a class file.

Type of Record	Explanation
Country code	The setup generates a record for the default country code you specify when you run the setup. If you enter a union code, setup creates ~1 and ~0 country codes.
Company addresses and address list types	In GTM, company sites require a corresponding company address record because taxes are calculated by address, not site. The setup verifies that each company site has an address record and creates any missing ones, along with any needed address list type records. The setup also creates a ~taxes address record to provide a default tax address whenever a transaction is missing a company site code.

GTM Control Settings

Setup defines Global Tax Management Control (2.13.24) as described in Table 9.5.

Field	Explanation
Country Code	Value specified in VAT to GTM–Setup
Tax Method	01
Tax-By-Line	No
Accrue Tax at Receipt	No
Discount Tax at Invoice	Same setting as in VAT Control (2.15.2.24)
Discount Tax at Payment	Same setting as in VAT Control (2.15.2.24)
Last Tax Code	Value specified in VAT to GTM–Setup

Table 9.5
Updates to GTM
Control Settings

VAT to GTM–Setup

Based on your implementation decisions, use VAT to GTM–Setup (2.13.22.1) to set up GTM for VAT tax processing.

Fig. 9.3
VAT to GTM–
Setup (2.13.22.1)

txvatcnv.p b+ 2.13.22.1 VAT to GTM - Setup 05/09/00

Delete Previous GTM: no
Convert VAT Masters: no

Country Code: _____
Union Code: EU (blank to use country code combinations)
Last Tax Code: EU000000
Generated Separator: =
Class File: _____
Display Status: no

From union country

To same union country
To different union country
To non-union country

Taxable: yes
Taxable: no
Taxable: no

From non-union country

To same non-union country
To different non-union country
To union country

Taxable: no
Taxable: no
Taxable: no

Output:
Batch ID:

Delete Previous GTM. This option determines whether the setup deletes previously created GTM records from the database. If you select this option, the setup deletes tax zones, tax types, tax environments, transaction tax details, and other GTM records.

- Enter No if you have not yet converted your database to GTM.
- Enter Yes to clean up the database if it contains GTM records from unsuccessful conversion or installation attempts.

Convert VAT Masters. This option determines whether setup generates GTM records based on country codes and VAT classes.

- Enter Yes to create GTM records corresponding to VAT classes.
- Enter No if you only want to delete previous GTM records and do not want the setup program to generate new GTM records.

Country Code. Enter the default country code for the GTM control program.

Union Code. Enter a three-character code (default is EU) representing the European Union if you want countries to sum into a union and non-union zone. Leave blank if you want tax environments to be created for each combination of ship-to and ship-from countries.

Last Tax Code. Enter a value to update the corresponding field in the Global Tax Management Control. In GTM, tax codes identify individual tax rates. Codes are generated sequentially based on the value of Last Tax Code in the GTM control program.

The default Last Tax Code is the union code followed by zeros. For example, for union code EU, the default Last Tax Code is EU000000. This value is recommended if you specified a value in Union Code.

If you are not summing into a union code, enter the default country code followed by zeros.

Generated Separator. Enter a character to be used as a separator in system-generated tax zones and environments. Using a separator can improve the readability of the component elements of these codes.

The default separator is the dash (–), but you can enter any character. A sample GTM code that uses the dash separator is PAR–FR for Paris, France. If you do not want to use separators, enter blank. However, you cannot use blank as a separator character.

Class File. To provide custom mapping of VAT classes to GTM classes and usage codes, specify an ASCII file with conversion information.

Display Status. This setting determines whether the system displays status messages online during the conversion. These messages list database tables and their indexes as they are converted. If you select this option, messages display on the screen and the printed report.

Taxable. Enter the appropriate values for the six possible combinations of transactions between EC countries and non-EC countries. Yes indicates the transaction is taxable.

Tip

The system-generated nontaxable tax type is NON-TAX, regardless of the separator you specify.

◆ See “Defining Custom Tax Class and Usage Codes” on page 117.

Converting Master Records

Once you finish implementing VAT processing in GTM, the next activity is to update tax settings in the following master records:

- Suppliers
- Customers
- Product lines
- Items
- Trailer codes
- Service categories
- Service agreement terms

GTM has additional fields and may require new values for existing fields.

VAT to GTM—Masters

To convert master records, run VAT to GTM—Masters (2.13.22.2).

Fig. 9.4
VAT to GTM—
Masters (2.13.22.2)

txvatmst.p b+ 2.13.22.2 VAT to GTM - Masters 05/09/00

	All	From:	To:
Suppliers:	no	_____	_____
Customers:	no	_____	_____
Countries For Addresses:	no	_____	_____
Zones For Addresses:	no	_____	_____
Product Lines:	no	_____	_____
Items:	no	_____	_____
Trailer Codes:	no	_____	_____
Service Categories:	no	_____	_____
Service Agreement Terms:	no	_____	_____
Class File:	_____		
Display Status:	no		Output: Batch ID:

In addition to updating the tax settings in the master records, this program assigns tax zone codes to supplier, customer, and company address records. For verification of changes, the program generates an audit trail.

For each type of record, you can convert all records, a range of records, or individual records. The program converts records in the same order as the options on the screen. For separate audit trails, run the report separately for each type of record.

See page 117.

If you created a class file during the setup step, specify its name in the Class File field. Display status, output, and Batch ID are the same as in the setup program.

Master Conversion Audit Trail

The master conversion prints a report of changed records. The format varies depending on the records included in the conversion. For each group of converted records, the report shows the record number and name followed by the before and after tax information, such as country code, tax zone code, taxable status, whether tax is included in item amounts, tax class, and tax usage.

Groups of converted records are printed in the same order as the screen selection criteria, and each group is separated by a page break. Warning and error messages identify potential conversion problems.

If you specified a class file, the report prints the VAT class and the corresponding GTM tax class and tax usage if any.

Figure 9.5 and Figure 9.6 show representative audit trail formats.

Processing: Customers						
Address Name			Taxable	Tax	In	TxC TaxUsage

10000001 Consolidated Industries Ltd.	Before	No	No	E		1-P-MFG
	After	No	No	E		1-P-MFG
10000002 Office Automation B.V.	Before	Yes	No	H		1-P-MFG
	After	Yes	No	H		1-P-MFG
10000003 MMB Verkehrssysteme GmbH	Before	Yes	No	G		1-P-MFG
	After	Yes	No	G		1-P-MFG

Fig. 9.5
Customer Audit Trail

Processing: Countries For Addresses				
Address Name		Ctry	Country	

10000001 Consolidated Industries Ltd.	Before		United Kingdom	
	After	UK	United Kingdom	
10000002 Office Automation B.V.	Before		Netherlands	
	After	NL	Netherlands	
10000003 MMB Verkehrssysteme GmbH	Before		Germany	
	After	D	Germany	

Fig. 9.6
Countries for
Addresses Audit Trail

Troubleshooting the Master Conversion

The error messages in the audit trail identify conditions you should analyze and address before you convert transactions. Table 9.6 lists some common problems along with explanations. Before you make corrections, restore the database from backup.

Warning Do not proceed to the transaction conversion until the master conversion audit trail is free of errors.

Error	Explanation
Tax class cannot be converted.	Class file does not contain VAT class that matches the one in the master record.
Blank tax class not allowed.	VAT class is blank in the class file.
Tax class cannot exceed 3 characters (xxx).	VAT class in the class file is longer than three characters. Message shows the first three characters.
Tax class does not exist (x).	VAT class in the class file not in the VAT master.
Tax class is not unique (x).	VAT class occurs in multiple places in the class file.

Table 9.6
Troubleshooting
the Master
Conversion

Error	Explanation
Tax class does not exist (xxx).	GTM tax class in the class file does not exist in the GTM tax class master.
Tax usage cannot exceed 8 characters (xxxxxxx).	GTM tax usage in the class file is longer than eight characters. Message shows the first eight characters.
Tax usage does not exist (xxxxxxx).	GTM tax usage in the class file does not exist in the GTM tax usage master.
Tax class/tax usage combination is not unique (xxx xxxxxxx).	GTM tax class and tax usage combination occurs in multiple places in the class file.

Note *x*, *xxx*, and *xxxxxxx* are placeholders for the actual codes displayed in the error message.

How the Conversion Changes Master Records

The following is provided to assist developers and others who require technical information on how the master conversion updates the database.

The menu-level program for VAT to GTM–Masters is `txvatmst.p`. This program calls subprograms that set the GTM tax values in the individual database tables. These programs can either set the existing VAT class value or retrieve an alternate value from a class file.

Table 9.7 lists the affected database tables and summarizes the changes.

Table 9.7
Changes to Master
Records

Table	Summary of Changes
ad_mstr	In supplier records, <code>txvatvd.p</code> sets <code>ad_taxable</code> from <code>vd_taxable</code> . It also sets <code>ad_taxc</code> and <code>ad_tax_usage</code> from <code>ad_taxc</code> or from the class file with AP usage if any. In customer records, <code>txvatcm.p</code> sets <code>ad_taxable</code> from <code>cm_taxable</code> and <code>ad_tax_in</code> from <code>cm_tax_in</code> . It also sets <code>cm_taxc</code> , <code>ad_taxc</code> , and <code>ad_tax_usage</code> from <code>cm_taxc</code> and from the class file with AR tax usage if any. In all address records, <code>txvatct.p</code> sets <code>ad_ctry</code> from <code>ad_country</code> and vice versa. <code>txvatzn.p</code> calls <code>txtxzget.p</code> to set <code>ad_tax_zone</code> .
fsc_mstr	<code>txvatfsc.p</code> sets <code>fsc_taxc</code> from <code>fsc_taxc</code> or from the AR tax usage if any.
pl_mstr	<code>txvatpl.p</code> sets <code>pl_taxc</code> from <code>pl_taxc</code> or from the class file if any.
pt_mstr	<code>txvatpt.p</code> sets <code>pt_taxc</code> from <code>pt_taxc</code> or from the class file if any.
sv_mstr	<code>txvatsv.p</code> sets <code>sv_taxc</code> from <code>sv_taxc</code> or from the class file with AR tax usage if any.
trl_mstr	<code>txvattrl.p</code> sets <code>trl_taxc</code> from <code>trl_taxc</code> or from the class file if any.

Converting Transaction Records

Once you finish converting master records, you can convert the following transaction records.

- Purchase orders and receipts
- Accounts payable vouchers and payments
- Service contracts, calls, and return material authorizations
- Sales quotes and orders
- Accounts receivable memos, invoices, and payments

In GTM, every transaction subject to tax has a transaction tax detail record. This record stores the information used to calculate tax. It also separates the tax into component elements such as recoverable and non-recoverable amounts.

VAT to GTM—Transactions

To convert existing transaction records so they are accessible in GTM, run VAT to GTM—Transactions (2.13.22.3).

txvattn.p b+ 2.13.22.3 VAT to GTM - Transactions 05/09/00

	All	From:	To:
Purchasing:	<u>no</u>	_____	_____
AP Vouchers:	<u>no</u>	_____	_____
AP Payments:	<u>no</u>	_____	_____
Service Contracts:	<u>no</u>	_____	_____
Service Calls:	<u>no</u>	_____	_____
RMA Orders:	<u>no</u>	_____	_____
Sales Quotes:	<u>no</u>	_____	_____
Sales Orders:	<u>no</u>	_____	_____
AR Memos:	<u>no</u>	_____	_____
AR Invoices:	<u>no</u>	_____	_____
AR Payments:	<u>no</u>	_____	_____
Class File:	_____		
Display Status:	<u>no</u>		Output: Batch ID:

Fig. 9.7
VAT to GTM—
Transactions
(2.13.22.3)

In addition to updating transactions, this program generates an audit trail for verification of changes.

You can convert all records, a range of records, or individual records. The program converts records in the same order they display on the screen.

Note In some cases, the record sequence is important. Purchasing transactions must be converted before accounts payable vouchers and vouchers before payments. Accounts receivable memos and invoices must be converted before payments.

See page 117.

If you created a class file during the setup step, specify its name in the Class File field. Display status, output, and Batch ID are the same as in the setup program.

Transaction Audit Trail

The transaction conversion prints a report of changed records. The format varies depending on the records included in the conversion. For each group of converted records, the report shows the transaction number and name followed by the before and after tax information for each line item, such as taxable status, tax environment, tax class, and tax usage. Groups of converted records are printed in the same order as the screen selection criteria, and each group is separated by a page break.

Warning and error messages identify potential conversion problems. Messages that appear at the end of a transaction apply to the entire transaction; those that appear between the Before and After line apply only to that line. If you specified a class file, the report prints the VAT class and the corresponding GTM tax class and tax usage if any.

Figure 9.8 and Figure 9.9 show representative audit trail formats.

Fig. 9.8
Purchasing Audit Trail

Processing: Purchasing							
Order	Receiver	Ln	Tax	TxC	TaxUsage	Tax Env	prh_tax_at
-----	-----	---	---	---	-----	-----	-----
01104533		Before	No				
		After	No	E		BE-NE	
		1 Before	Yes	e			
		After	Yes	E		BE-NE	
	RC1290	1 Before		e			E
		After		E		BE-NE	Yes

Processing: Service Calls							
Call ID	Call/SR	Line	Record	Tax	TxC	TaxUsage	Tax Env

CA127			Call	Before	No	0	
				After	No	0	1-P-MFG GER-NE
	CA127	1	Item	Before	No	0	
				After	No	0	1-P-MFG GER-NE
	CA127	1	Billing	Before	No	0	
				After	No	0	1-P-MFG GER-NE

Fig. 9.9
Service Calls Audit Trail

Troubleshooting Transaction Conversion

The warning and error messages in the audit trail identify conditions you should analyze and address before you resume live GTM processing. Table 9.8 lists some common problems along with explanations. Before you make corrections, restore the database from backup.

Warning Do not resume live processing until the transaction conversion audit trail is free of errors.

In addition to examining the audit trail, you should review the Tax Detail by Transaction Report (2.13.15.3). This report shows the tax environments, tax types, and tax amounts for the converted records. Verify that tax calculations are what you expect.

Note Converted transactions may have minor differences in before/after tax amounts. These can occur because GTM uses a different calculation algorithm or rounding method than your current system. To synchronize the general ledger with the converted transactions, record adjusting entries.

Error	Explanation
Detail tax environment must match header.	In accounts payable vouchers and accounts receivable debit/credit memos, the tax environment must be the same in both the header and detail lines.

Table 9.8
Troubleshooting the Transaction Conversion

Warning Do not correct transaction records programmatically. This approach often causes additional problems.

To eliminate ambiguity, the audit trail shows before and after values for purchasing, accounts payable, and accounts receivable records by their Progress database field name, not their screen label. For example, the audit trail displays voucher line types in the vod_type column.

Use Table 9.9 to Table 9.13 to interpret audit trails for the transaction conversion. These tables summarize before and after tax values.

Note In these tables, quotation marks indicate an untranslatable value.

Table 9.9
VAT to GTM,
Purchasing
Transactions

Status	Tax System	pod_taxable	prh_tax_at
Taxable	VAT	Yes	VAT class
	GTM	Yes	“Yes”
Nontaxable	VAT	No	“0” ^a
	GTM	No	Blank

a. First VAT class with a zero percentage.

Table 9.10
VAT to GTM, AP
Voucher Receiver
Lines

Status	Amt	Tax System	Tax	TxC	vod_type	vod_tax	vod_tax_at
Taxable	Item	VAT	No	VAT class	“R”	Blank	VAT class
		GTM	Yes	Tax class	“R”	Blank	“Yes”
	Tax	VAT	No	Blank	Blank	VAT class	Blank
		GTM	No	Blank	“T”	“t”	“No”
Nontaxable	Item	VAT	No	VAT class	“R”	Blank	VAT class
		GTM	No	Tax class	“R”	Blank	Blank
	Tax ^a	VAT	No	Blank	Blank	VAT class	Blank
		GTM	—	—	—	—	—

a. The conversion deletes VAT tax lines resulting from nontaxable amounts.

Table 9.11
VAT to GTM, AP
Voucher Memo
Lines

Status	Amt	Tax System	Tax	TxC	vod_type	vod_tax	vod_tax_at
Taxable	Item	VAT	No	Blank	Blank	Blank	VAT class
		GTM	Yes	Tax class	Blank	Blank	“Yes”
	Tax	VAT	No	Blank	Blank	VAT class	Blank
		GTM	No	Blank	“T”	“t”	“No”
Nontaxable	Item	VAT	No	Blank	Blank	Blank	“0” ^a
		GTM	No	Tax class	Blank	Blank	“No”
	Tax	VAT	No	Blank	Blank	VAT class	Blank
		GTM	—	—	—	—	—

a. The conversion deletes VAT tax lines resulting from nontaxable amounts.

Status	Amt	Tax System	TxC	ard_tax	ard_tax_at
Taxable	Item	VAT	Blank	VAT class	Blank
		GTM	Tax class	Blank	Tax class
	Tax	VAT	Blank	Blank	VAT class
		GTM	Blank	"t"	"No"
Nontaxable	Item	VAT	Blank	Blank	"0" ^a
		GTM	Tax class	Blank	Tax class
	Tax ^b	VAT	Blank	"0"	Blank
		GTM	—	—	—

Table 9.12
VAT to GTM, AR
Invoices

- a. First VAT class with a zero percentage.
b. The conversion deletes VAT tax lines resulting from nontaxable amounts.

Status	Amt	Tax System	TxC	ard_tax	ard_tax_at
Taxable	Item	VAT	Blank	Blank	VAT class
		GTM	Tax class	Blank	"Yes"
	Tax	VAT	Blank	VAT class	Blank
		GTM	Blank	"t"	"No"
Nontaxable	Item	VAT	Blank	Blank	"0"
		GTM	Tax class	Blank	"No"
	Tax ^a	VAT	Blank	"0" ^b	Blank
		GTM	—	—	—

Table 9.13
VAT to GTM, AR
DR/CR Memos

- a. The conversion deletes VAT tax lines resulting from nontaxable amounts.
b. First VAT class with a zero percentage.

How the Conversion Changes Transaction Records

The following information is provided to assist developers and others who require technical information on how the transaction conversion updates the database.

The menu-level program for VAT to GTM—Transactions is `txvattrn.p`. This program calls subprograms that set the GTM tax values in the individual database records. For all transactions, the conversion also generates corresponding tax detail records in the `tx2d_det` database table.

When setting the GTM tax class value, these programs can either set the existing VAT class value or retrieve an alternate value from a class file.

Table 9.14 lists the affected database tables and summarizes the changes.

Table 9.14
Changes to
Transaction
Records

Tables	Summary of Changes
ard_det	For debit/credit memos, txvatarm.p sets ard_tax, ard_tax_at, ard_taxc, and ard_tax_usage from the class file with AR usage if any. For invoices, txvatari.p sets ard_taxc and ard_tax_usage from the class file with AR tax usage if any, and ard_tax and ard_tax_at. Duplicate records for unique keys are merged into one record.
ar_mstr	For debit/credit memos, txvatarm.p sets ar_tax_env.
ca_mstr	txvatca.p sets ca_taxc and ca_tax_usage from ca_taxc or from the class file with AR tax usage if any. It also sets ca_tax_env using txtxeget.p.
idh_hist	txvatari.p sets idh_taxc and idh_tax_usage from idh_taxc or from the class file with AR tax usage if any. It also sets idh_tax_env using txtxeget.p.
ih_hist	txvatari.p sets ih_taxc and ih_tax_usage from ih_taxc or from the class file, with AR tax usage if any. It also sets ih_tax_env using txtxeget.p.
itm_det	If itm_prefix is CA and itm_type is any value except INV, txvatca.p sets itm_taxc and itm_tax_usage from itm_taxc or from the class file with AR usage if any. It also sets itm_tax_env using txtxeget.p.
pod_det	For inventory items, txvatpo.p sets pod_taxc and pod_tax_usage from pod_taxc or from the class file, with AP tax usage if any. For memo items, txvatpo.p sets pod_taxc from po_taxc and pod_tax_usage from po_tax_usage.
po_mstr	txvatpo.p sets po_tax_pct[1], po_tax_pct[2], and po_tax_pct[3] to 0. It sets po_tax_usage from ad_tax_usage and po_taxc from ad_taxc. It also sets po_tax_env using txtxeget.p.
prh_hist	For inventory items, txvatpo.p sets prh_taxc and prh_tax_usage from prh_taxc or from the class file, with AP tax usage if any. For memo items, txvatpo.p sets prh_taxc from pod_taxc and prh_tax_usage from pod_tax_usage. For all items, txvatpo.p also sets prh_tax_at from pod_taxable.
qod_det	txvatqo.p sets qod_taxc and qod_tax_usage from qod_taxc or from the class file with AR usage if any. If qo_taxable and qod_taxable are No and the quote is for an inventory item, txvatqo.p sets qod_taxc from pt_taxc. It also sets qod_tax_env.

Tables	Summary of Changes
qo_mstr	txvatqo.p sets qo_tax_pct[1], qo_tax_pct[2], and qo_tax_pct[3] to 0. txvatqo.p also sets qo_taxc and qo_tax_usage from qo_taxc or from the class file with AR usage if any. It also sets qo_tax_env.
rma_mstr	txvatrma.p sets rma_taxc from rma_taxc or from the class file with AR usage if any.
sad_det	txvatsc.p sets sad_taxc and sad_tax_usage from sad_taxc or from the class file with AR usage if any. txvatsc.p sets sad_tax_env from sa_site and sa_taxc using txtxeget.p.

Converting US Taxes to GTM

This section describes converting to GTM from MFG/PRO US taxes.

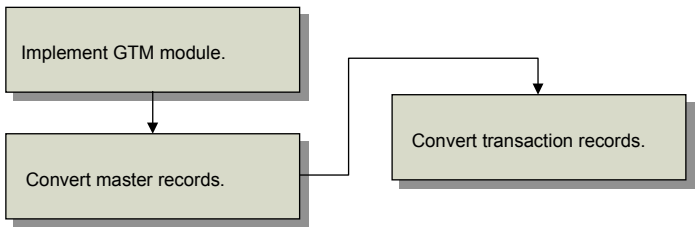


Fig. 9.10
USA to GTM
Conversion Process

The USA to GTM conversion process translates United States tax data to GTM equivalents and updates existing MFG/PRO records. Figure 9.10 summarizes the conversion work flow:

Implementing GTM. Run a setup program to implement GTM for US tax processing.

◆ See page 132.

Converting Master Records. Run a second program to populate database tables for customer and supplier addresses, items, product lines, and other master records with GTM data values.

◆ See page 143.

Converting Transaction Records. Run a third program to populate transaction records. All transactions subject to tax are affected, including sales, purchasing, accounts payable, accounts receivable, and service/support management.

◆ See page 146.

Note After each of these activities, review the corresponding reports and audit trails. Mistakes can be pervasive and costly.

Table 9.15 lists the MFG/PRO programs used during the conversion.

Table 9.15
MFG/PRO
Programs Used to
Convert US Taxes
to GTM

Activity	MFG/PRO Programs
Implementing GTM	USA to GTM–Setup (2.13.22.5)
Converting master records	USA to GTM–Masters (2.13.22.6)
Converting transaction records	USA to GTM–Transactions (2.13.22.7)

Implementing GTM

An automated setup program creates the codes you need to implement GTM, based on how your US taxes are currently defined. Before executing this program, you should understand the options it provides and the default logic it uses

Code Generation Rules

GTM codes for tax types, tax zones, and tax environments consist of text strings that uniquely identify the state, county, and city of a tax jurisdiction. Manual setup of these codes would be a tedious process, since there are thousands of them.

Fig. 9.11
Code Generation
Rules in USA to
GTM–Setup
(2.13.22.5)

txusacnv.p b+2.13.22.5 USA to GTM - Setup05/09/00

Delete Previous GTM: no
Convert Tax Masters: no

Country Code: usa
Last Tax Code: usa000000
Generated Separator: -
Class File: _____

State File: _____
County File: _____
City File: _____
Display Status: no

Maximum Sum

Code Generation Rules

One Word	Word 1	Word 2
Sep/NoSep	Sep/NoSep	Sep/NoSep
2	2	2
4	5	2
6	8	3
12	15	4

Output:
Batch ID:

Used to generate codes for Tax Types, Tax Zones, and Tax Environments

Therefore, by default, USA to GTM–Setup creates codes based on a set of rules. These rules systematically select characters from the state code, county name, and city name in the tax master.

To determine if the generated codes are appropriate for your company, run the setup and review the audit trail. If you need a different coding scheme, read the rest of this section and settings for the code generation rules as necessary. Then, rerun the setup with Delete Previous GTM set to Yes and Convert Tax Masters set to Yes.

Table 9.16 lists the default generated code formats for US taxes.

Code	Format	Explanation
Tax zones and tax environments	<i>SS-CCCC-cccccc</i>	<i>SS</i> is the 2-character state code, <i>CCCC</i> is the 4-character county name, and <i>cccccc</i> is the 6-character city name. Each text string is separated by a dash (–).
Tax Types	<i>SS-CCCC-cccccc-#</i>	This format is the same as the previous one, except that tax types have an extra digit (#) to identify whether the tax type applies to the state (1), county (2), or city (3).

Table 9.16
Default Generated Code Formats in USA to GTM–Setup (2.13.22.5)

The rules that determine the characters to select depend on two factors:

- Whether the US code or name used to generate the text string consists of one word or multiple words (text separated by blank spaces).
- Whether separator characters are used.

Table 9.17 lists the default number of characters for each text string under the different conditions. However, you can change the number of characters and use a different separator or no separator, as long as the total number of generated characters—including the separator and any ending integers—is 16 or less.

Code	One Word		Multiple Words			
			Word 1		Word 2	
	Sep	No Sep	Sep	No Sep	Sep	No Sep
State	2	2	2	2	0	0
County	4	5	2	3	2	2
City	6	8	3	4	3	4
Maximum Total Characters, With Separator						12
Maximum Total Characters, Without Separator						15

Table 9.17
Code Generation Rules in USA to GTM–Setup (2.13.22.5)

Tip
To override duplicate strings such as AR for the states Arkansas and Arizona, see “Defining Custom Codes for States, Counties, and Cities” on page 135.

Example If the original state code for Arkansas is ARKA, the generated text string is AR regardless of whether separators are used. For the county of Orange, the generated text string is Oran if separators are used and Orang if they are not. For the city of North Hollywood, the generated text string is NorHol if separators are used and NorthHoll if they are not.

The setup retains the capitalization from the original US code or name. If the original code or name contains punctuation such as a period, the code generation rules treat it the same as any other non-blank character.

Defining Custom Tax Exemption Codes

By default, the conversion generates corresponding GTM tax classes for your current tax exemption codes. For example, for tax exemption 1, the conversion generates GTM tax class 1. You can override this by creating your own map for the setup program and specifying it in the Class File field. The same class file is also referenced in the programs that convert master data and transaction records.

Fig. 9.12
Class File in USA
to GTM-Setup
(2.13.22.5)

txusacnv.p b+ 2.13.22.5 USA to GTM - Setup 05/09/00

Class file for custom tax exemption codes

Delete Previous GTM: no
Convert Tax Masters: no

Country Code: usa
Last Tax Code: usa00000
Generated Separator: =
Class File:

State File:
County File:
City File:
Display Status: no Maximum Sum

Code Generation Rules

One Word	Word 1	Word 2
Sep/NoSep	Sep/NoSep	Sep/NoSep
2	2	0
4	5	2
6	8	3

Output: Batch ID:

You should create a class file if:

- Your company plans to change its tax exemption codes during the GTM conversion.
- You want to convert exemption codes to tax usages instead of tax classes.

The class file is an ASCII file with text strings in the following format:

"Current Tax Exemption Code" "GTM Tax Class" "GTM Tax Usage"

GTM tax classes can have a maximum of three characters and tax usage codes eight characters. An unused optional value is represented by a null string (either “ ” or “”).

The file name can have any name or extension. However, code values in .csv files must be separated by commas instead of blank characters. The file must be located in the home directory for the Progress session.

Example Your current exemption codes are 1 and 2. You want to map these to GTM tax classes 01 and 02.

```
"1" "01" " "
"2" "02" " "
```

Tip
A .csv file is a Windows comma-delimited file format that saves values recorded in a spreadsheet.

Defining Custom Codes for States, Counties, and Cities

The generated codes for tax zones, tax environments, and tax types consist of text strings that identify the state, county, and city. By default, the code generation rules define the structure of these text strings. However, if you need a different naming convention, you can create geographic files for state codes, county names, and/or city names.

See “Updates to Company Addresses” on page 140.

In addition to supporting alternate naming conventions, such files can resolve code generation conflicts. For example, for state codes ARIZ and ARKA, the generated GTM code is AR. A state file is necessary to provide unique values.

Note You only need to define codes for conditions not supported by the code generation rules.

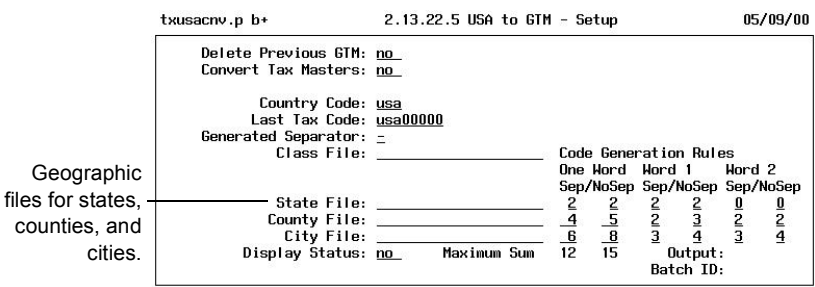


Fig. 9.13
State, County, and City Files in USA to GTM-Setup (2.13.22.5)

Create a separate file for each kind of text string and reference the file in USA to GTM–Setup as shown in Figure 9.13. A geographic file is the same as a class file, except that the file is formatted as follows:

```
"Current Code or Name" "GTM Text String"
```

Example To create unique codes for Arizona and Arkansas, create a state file with these lines:

```
"ARIZ" "AZ"
"ARKA" "AR"
```

Processing Logic

USA to GTM–Setup creates records as described in Table 9.18.

Table 9.18
New GTM Records

Type of Record	Explanation
Tax zones	Based on code generation rules or a class file, setup builds the tax zone hierarchy for the country and all state/county/city combinations in your current system.
Tax types	Based on code generation rules or a class file, setup generates tax types for all state/county/city combinations in your current system.
Tax environments	Based on code generation rules or a class file, setup generates tax environments for all ship-to tax zones. In the US, the tax environment's ship-from tax zone is the default country code, and the customer or supplier tax class is blank.
Tax rates	Based on code generation rules or a class file, setup generates tax rates for the tax jurisdictions and percentages in the tax master.
Tax classes	By default, setup generates corresponding tax classes for existing US tax exemption codes. However, if you reference a class file, the mappings in the class file determine the actual exemption codes.
Tax usages	By default, the setup does not generate tax usages. However, you have the option to do so in the class file.
Rounding method	The setup enters the rounding method specified in System/Account Control (36.1) as the GTM rounding method in Global Tax Management Control (2.13.24).

Type of Record	Explanation
Country code	The setup generates a record for the default country code you specify when you run the setup. This country code is the top-level zone in the tax zone hierarchy.
Company addresses and address list types	In GTM, company sites require a corresponding company address record because taxes are calculated by address, not site. The setup verifies that each company site has an address record and creates any missing ones, along with any needed address list type records. The setup also creates a ~taxes address record to provide a default tax address whenever a transaction is missing a company site code.

GTM Control Settings

The setup resets Global Tax Management Control (2.13.24) as described in Table 9.19.

Field	Explanation
Country Code	As specified during the setup
Tax Method	01
Tax-By-Line	No
Accrue Tax at Receipt	Yes
Discount Tax at Invoice	No
Discount Tax at Payment	No
Last Tax Code	As specified during the setup
Rounding Method	Value specified in System/Account Control (36.1)

Table 9.19
Updates to GTM
Control Settings

USA to GTM–Setup

Based on your implementation decisions, use USA to GTM–Setup (2.13.22.5) to set up GTM for US tax processing.

Fig. 9.14
USA to GTM–
Setup (2.13.22.5)

txusacnv.p b+ 2.13.22.5 USA to GTM - Setup 05/09/00

Delete Previous GTM: no
Convert Tax Masters: no

Country Code: usa
Last Tax Code: usa00000
Generated Separator: =
Class File: _____

State File: _____
County File: _____
City File: _____
Display Status: no

Code Generation Rules
One Word Word 1 Word 2
Sep/NoSep Sep/NoSep Sep/NoSep
2 2 2 2 0 0
4 5 2 3 2 2
6 8 3 4 3 4
Maximum Sum 12 15 Output:
Batch ID:

Warning As noted previously, the purpose of the conversion is to replicate your existing tax processing setup in GTM. Do not attempt to implement new GTM functionality until after the entire conversion is complete. Do not change settings in the new GTM records or in Global Tax Management Control (2.13.24). If you do, conversions may fail.

Delete Previous GTM. This option determines whether the setup deletes previously created GTM records from the database. If you select this option, the setup deletes tax zones, tax types, tax environments, transaction tax details, and other GTM records from the database.

- Enter No if you have not yet converted your database to GTM.
- Enter Yes to clean up the database if it contains GTM records from unsuccessful conversion or installation attempts.

Convert Tax Masters. This option determines whether the setup generates the GTM master records from USA tax master records.

- Enter Yes to create corresponding GTM records for the USA tax master: tax classes, tax types, tax zones, tax environments, tax rates, and so on. The audit trail shows the USA tax master records and the new tax zone codes.
- Enter No if you only want to delete previous GTM records and do not want the setup program to generate new GTM records.

Country Code. This country code is the top-level tax zone in the tax zone hierarchy. All other tax zones sum into this one.

If Global Tax Management Control (2.13.24) already has a country code, it displays here. Otherwise, the setup sets the default country code to USA. If you override the value here, the setup assigns it to the control program.

Last Tax Code. Enter a value to update the corresponding field in Global Tax Management Control. In GTM, tax codes identify individual tax rates. Codes are generated sequentially based on the value of Last Tax Code in the GTM control program.

The default Last Tax Code is an 8-character value that consists of the GTM country code and a right-justified integer with placeholder zeros. For example, for country code USA, the default Last Tax Code is USA00000. The system assigns the number USA00001 to the first tax rate record created in GTM and increments this number for subsequent rates.

If you want tax codes to have a different format, enter a different prefix. Codes display alphanumerically in screens and reports. Tax codes that are totally numeric are left-justified and have no placeholder zeros. For example, codes 1 through 30 display in a report column as follows:

```
1
...
19
2
20
...
30
```

Generated Separator. Enter a character to be used as a separator in system-generated tax zone, type, and environment codes. Using a separator improves readability of the elements of these codes.

The default separator is the dash (–), but you can enter any character. A sample GTM code that uses the dash separator is CA–SBa–SBa for Santa Barbara, California. If you do not want to use separators, enter blank. However, you cannot use blank as a separator character.

Class File. To provide custom mapping of US tax exemption codes to GTM classes and usage codes, specify an ASCII file with conversion information.

▶ See page 134.

- See page 135. *State, County, City File.* To override default code generation rules, specify specific values for geographic locations in an ASCII file.
- See page 132. *Code Generation Rules.* Enter appropriate values for your organization.
Display Status. This setting determines whether the system displays status messages online during the conversion. These messages list database tables and their indexes as they are converted. If you select this option, messages display on the screen and the printed report.

Updates to Company Addresses

In GTM, company sites require a corresponding company address record because taxes are calculated by address, not site. The setup creates any missing company address records for company sites. However, the setup does not populate these new address records with the city, county, state, and country. You must supply this information manually in Company Address Maintenance (2.12).

Also set up tax zone codes to support these new addresses if the setup did not already generate codes for these tax jurisdictions. Do this in Tax Zone Maintenance (2.13.3.13). Then, assign the tax zone to the address.

Setup Audit Trail

USA to GTM–Setup prints an audit trail of updated tax master records. For each record, the report shows the state/county/city combination, tax effective date, the tax rates for the effective date, and the taxable status of trailer charges. It also shows the corresponding generated tax zone and its sums-into tax zone.

Figure 9.15 shows the audit trail format.

Fig. 9.15
Setup Audit Trail

Processing: Create GTM from tax masters									
State	County	City	Effective	Tax	Tax	Tax	Tax Trl	Tax Zone	Sums-Into Tax Zone
FL	ORANGE	KISSIMMEE	08/07/97	8.00%	2.00%	6.00%	NO	FL-ORAN-KISSIM	USA
FL	ORANGE	ORLANDO	10/17/92	7.00%	0.00%	9.00%	NO	FL-ORAN-ORLAND	USA

Troubleshooting GTM Setup

After you run USA to GTM–Setup, verify that the GTM setup is correct before you continue with the conversion. The problems listed in Table 9.20 can cause errors or unexpected values. Before you proceed to the master conversion, review the audit trail, the GTM reports for the new records, and Global Tax Management Control settings. Correct any problems before continuing.

Subsequent setups do not automatically overwrite records created by previous ones. To set up new records, you must first delete the old ones. If you rerun the setup, you must remove the records created by the earlier setup attempt by setting Delete Previous GTM to Yes and Convert Tax Masters to Yes.

Note If you must rerun the setup after you have run any of the other conversion programs, restore the database first. Then, rerun the setup and any other conversion programs you ran previously. This is necessary to perpetuate changes to master data, transactions, and tax details.

Error	Explanation
Tax system must be USA.	The USA to GTM setup can be run only on a US tax system.
Must delete previous GTM when converting.	When you set Convert Tax Masters to Yes, you must also set Delete Previous GTM to Yes.
Tax-trailers has changed, cannot convert prior to this date.	The setup can convert only the current tax environment, not previous variations. If the taxable status of trailer charge codes was changed in the span of time included in the conversion, the setup creates tax environments only for current conditions.

Table 9.20
Troubleshooting
the GTM Setup

Warning Do not correct records programmatically. This approach often causes additional problems.

How the Setup Changes GTM Records

The following information is provided to assist developers and others who require technical information on how the setup updates the database.

The menu-level program for USA to GTM–Setup is `txusacnv.p`. This program calls subprograms (primarily `txusatax.p`) that set the GTM tax values in the individual database records. Table 9.21 lists the affected database tables and summarizes the changes.

Table 9.21
Changes to GTM
Records

Tables	Summary of Changes
ad_mstr	<code>txusatax.p</code> creates one ~taxes record for the database. It also scans <code>si_mstr</code> and creates an address record for any company site that does not already have one.
code_mstr	For the nine US exemption codes in <code>tax_mstr</code> , <code>txusatax.p</code> creates corresponding tax classes. If a class file is referenced, it creates the specified tax classes. For each of the three rates that <code>tax_mstr</code> stores for US tax jurisdictions, <code>txusatax.p</code> creates a tax type. For non-taxable transactions, it also creates a default NON-TAX tax type. Finally, for each ship-to tax zone, <code>txusatax.p</code> creates a tax environment and assigns it the tax types associated with the tax zone.
ctry_mstr	<code>txusatax.p</code> creates a record for the default country code specified in the selection data.
ls_mstr	<code>txusatax.p</code> creates <code>ls_mstr</code> record for each new <code>ad_mstr</code> record, if any.
tx2_mstr	For each of the three rates that <code>tax_mstr</code> stores for US tax jurisdictions, <code>txusatax.p</code> creates a tax rate. It also runs <code>txtx2_nt.i</code> to create a non-taxable tax rate and <code>txtxmeth.i</code> to create tax method 01.
txc_ctrl	<code>txusatax.p</code> sets <code>txc_ctry_code</code> and <code>txc_tax_code</code> from the selection data. It sets <code>txc_method</code> to 01, <code>txc_by_line</code> , <code>txc_inv_disc</code> , and <code>txc_pmt_disc</code> to No, and <code>txc_rcpt_tax_point</code> to Yes.
txe_mstr	<code>txusatax.p</code> creates tax environment zone detail records for every tax environment code it generates for the <code>code_mstr</code> .
txed_det	<code>txusatax.p</code> creates tax environment tax type detail records for every tax environment code it generates for the <code>code_mstr</code> .
txz_mstr	<code>txusatax.p</code> creates a top-level sums-into tax zone for the new <code>ctry_mstr</code> record. For each state/county/city combination in <code>tax_mstr</code> , it creates a ship-to tax zone.

Converting Master Records

Once you finish the GTM setup, the next activity is to update tax settings in the following master records:

- Suppliers
- Customers
- Product lines
- Items
- Trailer codes
- Service categories
- Service agreement terms

GTM has additional fields and may require new values for existing fields.

USA to GTM–Masters

To convert master records, run USA to GTM–Masters (2.13.22.6).

txusamst.p b+ 2.13.22.6 USA to GTM - Masters 05/09/00

	All	From:	To:
Suppliers:	<u>no</u>		
Customers:	<u>no</u>		
Countries For Addresses:	<u>no</u>		
Zones For Addresses:	<u>no</u>		
Product Lines:	<u>no</u>		
Items:	<u>no</u>		
Trailer Codes:	<u>no</u>		
Service Categories:	<u>no</u>		
Service Agreement Terms:	<u>no</u>		
Class File:			
Display Status:	<u>no</u>		
			Output: Batch ID:

Fig. 9.16
USA to GTM–
Masters (2.13.22.6)

In addition to updating the tax settings in the master records, this program assigns tax zone codes to supplier, customer, and company address records. For verification of changes, the program generates an audit trail.

Important Before you run USA to GTM–Masters, do the following.

- Run USA to GTM–Setup (2.13.22.5).
- To avoid record-contention conflicts with other users, shut down the database. Restart it with no other users on the system.

For each type of record, you can convert all records, a range of records, or individual records. This program converts records in the same order as the options on the screen. For separate audit trail reports, run the report separately for each type of record.

See “Defining Custom Tax Exemption Codes” on page 134.

If you created a class file during the setup step, specify its name in the Class File field. Display Status, Output, and Batch ID are the same as in the setup program.

Master Conversion Audit Trail

The master conversion prints a report of changed records. The format varies depending on the records included in the conversion. For each group of converted records, the report shows the record number and name followed by the before and after tax information, such as country code, tax zone code, taxable status, whether tax is included in item amounts, and tax class.

Groups of converted records are printed in the same order as the screen selection criteria, and each group is separated by a page break. Warning and error messages identify potential conversion problems.

Figure 9.17 and Figure 9.18 show representative audit trail formats.

Fig. 9.17 Customer Audit Trail

Processing: Customers					
Address	Name		Taxable	TxC	TaxUsage
-----	-----		-----	-----	-----
32174893	Consolidated Industries Inc.	Before	No	1	
		After	No	1	
32174895	Asheville Manufacturing	Before	Yes		
		After	Yes		
32174897	Hartford Electronics	Before	Yes		
		After	Yes		

Fig. 9.18 Countries for Addresses Audit Trail

Processing: Countries For Addresses					
Address	Name		Ctry	Country	
-----	-----		----	-----	
32174893	Consolidated Industries Inc.	Before		United States	
		After	USA	United States	
32174895	Asheville Manufacturing	Before		United States	
		After	USA	United States	
32174897	Hartford Electronics	Before		United States	
		After	USA	United States	

Troubleshooting the Master Conversion

The error messages in the audit trail identify conditions you should analyze and address before you convert transactions. Table 9.22 lists some common problems along with explanations. Before you make corrections, restore the database from backup.

Warning Do not proceed to the transaction conversion until the master conversion audit trail is free of errors.

Error	Explanation
Tax class cannot be converted.	Class file does not contain a tax exemption that matches the one in the master record.
Blank tax class not allowed.	Tax exemption is blank in the class file.
Tax class cannot exceed 3 characters (xxx).	Tax exemption in the class file is longer than three characters. The message shows the first three characters.
Tax class does not exist (x).	Tax exemption in the class file not in the US tax master.
Tax class is not unique (x).	Tax exemption occurs in multiple places in the class file.
Tax class does not exist (xxx).	GTM tax class in the class file does not exist in the GTM tax class master.
x, xxx, and xxxxxxxx are placeholders for the actual codes displayed in the error message.	

Table 9.22
Troubleshooting
the Master
Conversion

How the Conversion Changes Master Records

The following is provided to assist developers and others who require technical information on how the master conversion updates the database.

The menu-level program for USA to GTM—Masters, `txusamst.p`, sets the GTM tax values in the individual tables.

When setting the GTM tax class value, the programs can either set the existing tax exemption code or retrieve an alternate from a class file.

Table 9.23 lists the affected database tables and summarizes the changes.

See “Defining Custom Tax Exemption Codes” on page 134.

Tables	Summary of Changes
ad_mstr	In supplier records, <code>txusavd.p</code> sets <code>ad_taxable</code> from <code>vd_taxable</code> . It also sets <code>ad_taxc</code> and <code>ad_tax_usage</code> to blank. In customer records, <code>txusacm.p</code> sets <code>ad_taxable</code> from <code>cm_taxable</code> and <code>ad_tax_in</code> from <code>cm_tax_in</code> . It also sets <code>cm_taxc</code> , <code>ad_taxc</code> , <code>cm_taxc</code> , and <code>ad_tax_usage</code> from <code>cm_taxc</code> or from the AR class file, if any. In all address records, <code>txusact.p</code> sets <code>ad_ctry</code> from <code>ad_country</code> and visa versa. <code>txusazn.p</code> calls <code>txtxzget.p</code> to set <code>ad_tax_zone</code> .
fsc_mstr	<code>txusafsc.p</code> sets <code>fsc_taxc</code> from <code>fsc_taxc</code> or from the AR class file if any.
pl_mstr	<code>txusapl.p</code> sets <code>pl_taxc</code> from <code>pl_taxc</code> or from the class file, if any.
pt_mstr	<code>txusapt.p</code> sets <code>pt_taxc</code> from <code>pt_taxc</code> or from the class file, if any.

Table 9.23
Changes to Master
Records

Tables	Summary of Changes
sv_mstr	txusasv.p sets sv_taxc and sv_tax_usage from sv_taxc or from the AR class file, if any.
trl_mstr	txusatrl.p sets trl_taxc from trl_taxc or from the class file, if any.

Converting Transaction Records

Once you finish converting master records, you can convert the following transaction records:

- Purchase orders and receipts
- Accounts payable vouchers and payments
- Service contracts, calls, and return material authorizations
- Sales quotes and orders
- Accounts receivable memos, invoices, and payments

In GTM, every transaction subject to tax has a transaction tax detail record. This record stores the information used to calculate tax.

USA to GTM–Transactions

To convert existing transaction records, run USA to GTM–Transactions (2.13.22.7).

Fig. 9.19
USA to
GTM–Transactions
(2.13.22.7)

txusatrn.p b+ 2.13.22.7 USA to GTM - Transactions 05/09/00

	All	From:	To:
Purchasing:	<u>no</u>	_____	_____
AP Vouchers:	<u>no</u>	_____	_____
AP Payments:	<u>no</u>	_____	_____
Service Contracts:	<u>no</u>	_____	_____
Service Calls:	<u>no</u>	_____	_____
RMA Orders:	<u>no</u>	_____	_____
Sales Quotes:	<u>no</u>	_____	_____
Sales Orders:	<u>no</u>	_____	_____
AR Memos:	<u>no</u>	_____	_____
AR Invoices:	<u>no</u>	_____	_____
AR Payments:	<u>no</u>	_____	_____
Class File:	_____		
Display Status:	<u>no</u>		Output: Batch ID:

In addition to updating transactions, this program generates an audit trail for verification of changes.

Important Before you run USA to GTM–Transactions, do the following:

- Run USA to GTM–Setup (2.13.22.5) and USA to GTM–Masters (2.13.22.6).
- Avoid record-contention conflicts with other users. Shut down the database and restart it when no other users are on the system.

You can convert all records, a range of records, or individual records. The program converts records in the same order they display on the screen.

Note In some cases, the record sequence is important. Purchasing transactions must be converted before accounts payable vouchers and vouchers before payments. Accounts receivable memos and invoices must be converted before payments.

If you created a class file during the setup step, specify its name in the Class File field. Display Status, Output, and Batch ID are the same as in the setup program.

Tip

For separate audit trail reports, run the report separately for each type of record.

♦ See “Defining Custom Tax Exemption Codes” on page 134.

Transaction Audit Trail

The transaction conversion prints a report of changed records. The format varies depending on the records included in the conversion. For each group of converted records, the report shows the transaction number and name followed by the before and after tax information for each line item, such as taxable status, tax environment, and tax class. Groups of converted records are printed in the same order as the screen selection criteria, and each group is separated by a page break.

Warning and error messages identify potential conversion problems. Messages that appear at the end of a transaction apply to the entire transaction; those that appear between the Before and After line apply only to that line.

Figure 9.20 and Figure 9.21 show representative audit trail formats.

Fig. 9.20
Purchasing Audit Trail

Processing: Purchasing									
Order	Receiver	Ln		Tax	TxC	TaxUsage	Tax	Env	prh_tax_at

01104533			Before	No	1				
			After	No	1			NJ-TRENT	
		1	Before	Yes	B				
			After	Yes	B			NJ-TRENT	
	RC1290	1	Before		B				B
			After		B			NJ-TRENT	B

Fig. 9.21
Service Calls Audit Trail

Processing: Service Calls									
Call ID	Call/SR	Line	Record		Tax	TxC	TaxUsage	Tax	Env

CA127			Call	Before	No	1			
				After	No	1			
		1	Item	Before	No	1	1-P-MFG		NJ-TRENT
				After	No	1	1-P-MFG		NJ-TRENT
	CA127	1	Billing	Before	No	1			
				After	No	1	1-P-MFG		NJ-TRENT

Troubleshooting Transaction Conversion

The error messages in the audit trail identify conditions you should analyze and address before you resume live GTM processing. Table 9.24 lists some common problems along with explanations. Before you make corrections, restore the database from backup.

Table 9.24
Troubleshooting the Transaction Conversion

Error	Explanation
Detail tax environment must match header.	In accounts payable vouchers and accounts receivable debit/credit memos, the tax environment must be the same in both the header and detail lines.

Warning Do not resume live processing until the transaction conversion audit trail is free of errors. Do not correct transaction records programmatically. This approach often causes additional problems.

In addition to examining the audit trail, it is advisable to review the Tax Detail by Transaction Report (2.13.15.3). This report shows the tax environments, tax types, and tax amounts for the converted records. Verify that tax calculations are what you expect.

Converted transactions may have minor differences in before/after tax amounts. These occur because GTM uses a different calculation algorithm or rounding method than your source version. To synchronize the general ledger with the converted transactions, record adjusting entries.

To eliminate ambiguity, the audit trail shows before and after values for purchasing, accounts payable, and accounts receivable records by their Progress database field name, not their screen label. For example, the audit trail displays voucher line types in the `vod_type` column.

As you interpret the audit trail for the transaction conversion, it can be helpful to see Table 9.25 through Table 9.29. These tables summarize the nature of before/after tax values.

Note In these tables, quotation marks indicate an untranslatable value.

Status	Tax System	pod_taxable	prh_tax_at
Taxable	USA	Yes	"y"
	GTM	Yes	"Yes"
Non-taxable	USA	No	"n" or blank ^a
	GTM	No	Blank

Table 9.25
USA to GTM,
Purchasing
Transactions

a. An item is non-taxable if `pod_taxable` is n (No). If the transaction is non-taxable, the tax exemption code is optional.

Status	Amt	Tax System	Tax	TxC	vod_type	vod_tax	vod_tax_at
Taxable	Item	USA	No	Blank	"R"	Blank	"y"
		GTM	Yes	Tax class	"R"	Blank	"Yes"
	Tax	USA	No	Blank	Blank	"y"	Blank
		GTM	No	Blank	"T"	"t"	"No"
Non-taxable	Item	USA	No	Exemption code or blank ^a	"R"	Blank	Blank
		GTM	No	Tax class	"R"	Blank	Blank
	Tax ^b	USA	No	Blank	Blank	"y"	Blank
		GTM	—	—	—	—	—

Table 9.26
USA to GTM, AP
Voucher Receiver
Lines

a. An item is non-taxable if its taxable status is No. If the transaction is non-taxable, the tax exemption code is optional.

b. The conversion deletes US tax lines resulting from non-taxable amounts.

Table 9.27
USA to GTM, AP
Voucher Memo
Lines

Status	Amt	Tax System	Tax	TxC	vod_type	vod_tax	vod_tax_at
Taxable	Item	USA	No	Blank	Blank	Blank	Y
		GTM	Yes	Tax class	Blank	Blank	“Yes”
	Tax	USA	No	Blank	Blank	y	Blank
		GTM	No	Blank	“t”	“t”	“No”
Non-taxable	Item	USA	No	Blank	Blank	Blank	n or blank ^a
		GTM	No	Tax class	Blank	Blank	“No”
	Tax ^b	USA	No	Blank	Blank	y	Blank
		GTM	–	–	–	–	–

a. An item is non-taxable if its taxable status is n (No). If the transaction is non-taxable, the tax exemption code is optional.

b. The conversion deletes USA tax lines resulting from non-taxable amounts.

Table 9.28
USA to GTM, AR
Invoices

Status	Amt	Tax System	ard_tax	ard_tax_at	ard_taxc
Taxable	Item	USA	Blank	Blank	Blank
		GTM	Blank	Tax class	Tax class
	Tax	USA	Blank	Blank	Blank
		GTM	“t”	“No”	Blank
Non-taxable	Item	USA	Blank	Blank	Blank
		GTM	Blank	Tax class	Tax class
	Tax ^a	USA	–	–	–
		GTM	–	–	–

a. In the US tax system, no tax records are created for non-taxable amounts, so the conversion creates no new records for GTM.

Table 9.29
USA to GTM, AR
DR/CR Memos

Status	Amt	Tax System	ard_tax	ard_tax_at	ard_taxc
Taxable	Item	USA	Blank	“y”	Blank
		GTM	Blank	“Yes”	Tax class
	Tax	USA	“y”	Blank	Blank
		GTM	“t”	“No”	Blank
Non-taxable	Item	USA	Blank	“n”	Blank
		GTM	Blank	“No”	Tax class
	Tax ^a	USA	–	–	–
		GTM	–	–	–

a. In the US tax system, no tax records are created for non-taxable amounts, so the conversion creates no new records for GTM.

How the Conversion Changes Transaction Records

The following information is provided to assist developers and others who require technical information on how the transaction conversion updates the database.

The menu-level program for USA to GTM–Transactions is `txusatrn.p`. This program calls subprograms that set the GTM tax values in the individual database records. For all transactions, the conversion also generates corresponding tax detail records in the `tx2d_det` table.

When setting the GTM tax class value, these programs can either set the existing tax exemption code value or retrieve an alternate value from a class file.

See “Defining Custom Tax Exemption Codes” on page 134.

Table 9.30 lists the affected database tables and summarizes the changes.

Tables	Summary of Changes
<code>ard_det</code>	For debit/credit memos, <code>txusaarm.p</code> sets <code>ard_tax</code> and <code>ard_tax_at</code> .
<code>ar_mstr</code>	For debit/credit memos, <code>txusaarm.p</code> sets <code>ar_tax_env</code> using <code>txtxeget.p</code> .
<code>ca_mstr</code>	<code>txusaca.p</code> sets <code>ca_taxc</code> and <code>ca_tax_usage</code> from <code>ca_taxc</code> or from the class file, if any. It also sets <code>ca_tax_env</code> using <code>txtxeget.p</code> .
<code>idh_hist</code>	<code>txusaari.p</code> sets <code>idh_taxc</code> and <code>idh_tax_usage</code> from <code>idh_taxc</code> or from the class file, if any. It also sets <code>idh_tax_env</code> using <code>txtxeget.p</code> .
<code>ih_hist</code>	<code>txusaari.p</code> sets <code>ih_taxc</code> and <code>ih_tax_usage</code> from <code>ih_taxc</code> or from the class file, if any. It also sets <code>ih_tax_env</code> using <code>txtxeget.p</code> .
<code>itm_det</code>	If <code>itm_prefix</code> is CA and <code>itm_type</code> is any value except INV, <code>txusaca.p</code> sets <code>itm_taxc</code> and <code>itm_tax_usage</code> from <code>itm_taxc</code> or from the class file, if any. It also sets <code>itm_tax_env</code> using <code>txtxeget.p</code> .
<code>pod_det</code>	If <code>pod_taxable</code> is Yes, <code>txusapo.p</code> sets <code>pod_taxc</code> to blank and sets <code>pod_tax_env</code> using <code>txtxeget.p</code> . If <code>pod_taxable</code> is No, <code>txusapo.p</code> sets <code>pod_tax_env</code> from <code>po_tax_env</code> .
<code>po_mstr</code>	<code>txusapo.p</code> sets <code>po_tax_pct[1]</code> , <code>po_tax_pct[2]</code> , and <code>po_tax_pct[3]</code> to 0. It sets <code>po_tax_usage</code> from <code>ad_tax_usage</code> and <code>po_taxc</code> from <code>ad_taxc</code> . It also sets <code>po_tax_env</code> using <code>txtxeget.p</code> .
<code>prh_hist</code>	<code>txusapo.p</code> sets <code>prh_taxc</code> to blank if <code>prh_tax_at</code> is “y”. It also sets <code>prh_tax_env</code> from <code>pod_tax_env</code> . If <code>pod_taxable</code> is Yes, <code>txusapo.p</code> sets <code>prh_tax_at</code> to “Yes”; otherwise, to blank.
<code>qod_det</code>	<code>txusaqo.p</code> sets <code>qod_taxc</code> and <code>qod_tax_usage</code> from <code>qod_taxc</code> or from the class file, if any. It also sets <code>qod_tax_env</code> using <code>txtxeget.p</code> .

Table 9.30
Changes to
Transaction
Records

Tables	Summary of Changes
qo_mstr	txusaqo.p sets qo_tax_pct[1], qo_tax_pct[2], and qo_tax_pct[3] to 0. txusaqo.p also sets qo_taxc and qo_tax_usage from qo_taxc or from the class file, if any. It also sets qo_tax_env using txtxeget.p.
rma_mstr	txusarma.p sets rma_taxc from rma_taxc or from the class file, if any.
sad_det	txusasc.p sets sad_taxc and sad_tax_usage from sad_taxc or from the class file, if any. txusasc.p sets sad_tax_env from sa_site and sa_taxc using txtxeget.p.
sa_mstr	txusasc.p sets sa_tax_pct[1], sa_tax_pct[2], and sa_tax_pct[3] to 0. It sets sa_taxc and sa_tax_usage from sa_taxc or from the class file, if any. It also sets sa_tax_env using txtxeget.p.
sfb_det	txusaca.p sets sfb_taxc and sfb_tax_usage from sfb_taxc or from the class file, if any. txusaca.p sets sfb_tax_env using txtxeget.p.
sod_det	txusaso.p sets sod_taxc and sod_tax_usage from sod_taxc or from the class file if any. txusaso.p sets sod_tax_env using txtxeget.p.
so_mstr	txusaso.p sets so_tax_pct[1], so_tax_pct[2], and so_tax_pct[3] to 0. txusaso.p sets so_taxc and so_tax_usage from so_taxc or from the class file, if any. txusaso.p sets so_tax_env using txtxeget.p.
tx2d_det	txusapo.p creates tax details for purchase orders (GTM transaction type 20), receivers (21), reconciliations (23), and returns (25). txusaapv.p creates tax details for vouchers (22) and recurring vouchers (32). txusaapp.p creates tax details for accounts payable tax on discount at payment (29). txusaqo.p creates tax details for sales quotes (10). txusaso.p creates tax details for invoiced service calls (38), return material authorizations (36), sales orders (11), and pending invoices (13). txusaarm.p creates tax details for debit/credit memos (18). txusaari.p creates tax details for invoices (16). txusaarp.p creates tax details for accounts receivable tax on discount at payment (19). txusasc.p creates tax details for service quotes (33) and service contracts (34).
vod_det	txusaapv.p sets vod_taxable, vod_taxc, vod_tax_usage, vod_tax, vod_tax_at, vod_type, and vod_tax_env. If vod_type is "r" and vod_tax_at is "Y", vod_taxc is set to blank.
vo_mstr	For vouchers, txusaapv.p sets vo_tax_pct[1], vo_tax_pct[2], and vo_tax_pct[3] to 0. It also sets vo_taxable, vo_taxc, vo_tax_usage, and vo_tax_env.

Converting to GTM From No Taxes

If you are not using any tax method in your source database, then follow the steps in “Converting US Taxes to GTM” on page 131 to convert master records and transactions details. The modifications to the process documented in that section are as follows:

USA to GTM Setup

Under “Implementing GTM” on page 132, when you run USA-to-GTM-Setup (2.13.22.5), use the following settings:

Field	Value
Delete Previous GTM	Yes
Convert Tax Masters	Yes
Country Code	Non-blank
Last Tax Code	USA00000
Display Status	Yes

Accept default values for all other fields.

Enter any new country codes entered in US-to-GTM Setup in Country Code Maintenance (2.14.1). In addition, create a country code called **A11** with a name of **A11**. The Name field in Country Code Maintenance must match the Country field in the address master table (`ad_mstr`).

USA to GTM Masters

Under “Converting Master Records” on page 143, run the following programs:

- Tax Zone Maintenance (2.13.3.13). Create a Tax Zone **A11** with a country code of **A11**. In addition, create tax zones for each country code. Set the option Sums-Into Tax Zone to **A11**.

- Tax Environment (2.13.5.1). Create a non-taxable environment with the following setup:

	Field	Value
	Tax Environment	non-tax
1st record:	Ship-From Zone	All
	Ship-To Zone	blank
2nd record:	Ship-From Zone	blank
	Ship-To Zone	All

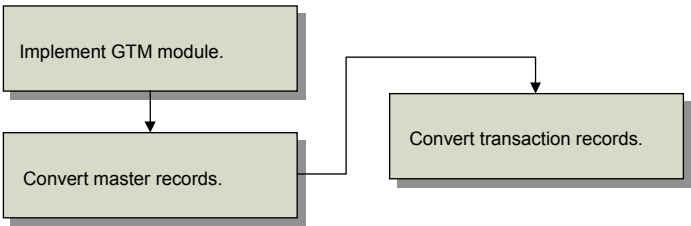
- Global Tax Management Control (2.13.24). Enter the default tax zone and tax environment. Set Tax Zone to the zone created for your country and set Tax Environment to non-tax.

Continue on with “USA to GTM–Masters” on page 143 and “USA to GTM–Transactions” on page 146.

Converting Canadian Taxes to GTM

This section describes how to convert to GTM from MFG/PRO’s Canadian tax system.

Fig. 9.22
Canadian to GTM
Conversion Process



The Canadian to GTM conversion process translates Canadian tax data to GTM equivalents and updates existing MFG/PRO records. Figure 9.22 summarizes the conversion work flow, which revolves around three sets of activities.

◆ See page 155.

Implementing GTM. You run a setup program to implement GTM for Canadian tax processing.

◆ See page 166.

Converting Master Records. You run a second program to populate database tables for customer and supplier addresses, items, product lines, and other master records with GTM data values.

Converting Transaction Records. You run a third program to populate transaction records. All transactions subject to tax are affected, including sales, purchasing, accounts payable, accounts receivable, and service/support management.

See page 170.

Note After each of these activities, it is crucial to review the corresponding reports and audit trails. Mistakes can be pervasive and costly.

Table 9.31 lists the MFG/PRO programs used during the conversion.

Activity	MFG/PRO Programs
Implementing GTM	CAN to GTM–Setup (2.13.22.9)
Converting master records	CAN to GTM–Masters (2.13.22.10)
Converting transaction records	CAN to GTM–Transactions (2.13.22.11)

Table 9.31
MFG/PRO
Programs Used to
Convert Canadian
Taxes to GTM

Implementing GTM

An automated setup program creates most of the codes you need to implement GTM, based on how your Canadian taxes are defined. Before executing this program, you should understand the options it provides and the default logic it uses.

Code Generation Rules

GTM codes for tax types, tax zones, and tax environments consist of text strings that uniquely identify the province, county, and city of a tax jurisdiction. In Canada, manual setup of these codes would be a tedious process, since there are thousands of them.

txcancnv.p b+2.13.22.9 CAN to GTM - Setup05/09/00

Delete Previous GTM: no
Convert Tax Masters: no

Country Code: usa
Last Tax Code: usa00000
Generated Separator: -
Class File:

Province File:
County File:
City File:
Display Status: no

Maximum Sum

Code Generation Rules

One	Word	Word 1	Word 2
Sep/NoSep	Sep/NoSep	Sep/NoSep	Sep/NoSep
3	3	3	0
4	4	2	2
7	9	4	5
14	16	4	3

Output:
Batch ID:

Used to generate codes for Tax Types, Tax Zones, and Tax Environments

Fig. 9.23
Code Generation
Rules in CAN to
GTM–Setup
(2.13.22.9)

Therefore, by default, CAN to GTM–Setup generates codes based on its code generation rules (Figure 9.23). These rules systematically select characters from the province code, county name, and city name in the tax master.

To determine if generated codes are suitable for your company, run the setup and review the audit trail. If you need a different coding scheme, read the rest of this section and change the settings for the code generation rules as necessary. Then, rerun the setup with Delete Previous GTM set to Yes and Convert Tax Masters set to Yes.

For Canadian taxes, the default generated code format for tax zones, tax types, and tax environments is:

PPP-CCCC-ccccccc

PPP is the 3-character province code, CCCC the 4-character county or district name, and ccccccc the 7-character city name. Each text string is separated by a dash (–).

The rules used to determine the characters to select depend on:

- Whether the Canadian code or name used to generate the text string consists of one word or multiple words (text strings separated by blank spaces).
- Whether separator characters are used.

Table 9.32 lists the default number of characters for each text string under the different conditions. However, you can change the number of characters and use a different separator or no separator, as long as the total number of generated characters—including the separator and any ending integers—is 16 or less.

Table 9.32
Code Generation
Rules in CAN to
GTM–Setup
(2.13.22.9)

Code	One Word		Multiple Words			
			Word 1		Word 2	
	Sep	No Sep	Sep	No Sep	Sep	No Sep
Province	3	3	3	3	0	0
County	4	4	2	2	2	2
City	7	9	4	5	3	4
Maximum Total Characters, With Separator						14
Maximum Total Characters, Without Separator						16

Example If the original province code for Alberta is ALBA, the generated text string is ALB regardless of whether separators are used. For the city of Southampton, the generated text string is Southam if separators are used and Southampt if they are not. For the city of Thunder Bay, the generated text string is ThunBay if separators are used and ThundBay if they are not.

Setup retains the capitalization from the original Canadian code or name. If the original code or name contains punctuation such as a period, the code generation rules treat it the same as any other non-blank character.

Defining Custom Tax Class and Tax Usage Codes

By default, the setup generates tax classes that directly correspond to your Canadian GST master records. To distinguish the two sets of codes, it appends the letter P to the GST + PST code. For example, if your current GST classes are 0, 1, and 2, the generated GTM classes are 0, 1, and 2 (for GST only) and 0P, 1P, and 2P (for GST + PST). The system does not automatically generate tax usages.

You can override this by creating your own map for the setup program and specifying it in the Class File field. The same class file is also referenced in the programs that convert master data and transaction records.

txcancnv.p b+2.13.22.9 CAN to GTM - Setup05/09/00

Delete Previous GTM: no
Convert Tax Masters: no

Country Code: usa
Last Tax Code: usa000000
Generated Separator: =

Class File:

Province File:
County File:
City File:
Display Status: noMaximum Sum1416

Code Generation Rules
One WordWord 1Word 2
Sep/NoSepSep/NoSepSep/NoSep
333300
442222
794534

Output:
Batch ID:

Class file for custom Tax Class and Tax Usage codes

Fig. 9.24
Class File in CAN to GTM-Setup (2.13.22.9)

You should create a class file if:

- Your company plans to change its tax class codes during the GTM conversion. In this situation, you must define custom codes for GST only and GST + PST.

- Within a tax class, a company can be taxed based on its nature of operation or the way it intends to use an item. In GTM, these conditions are identified by tax usage codes.

The class file is an ASCII file with text strings in the following format:

```
"Current GST Class" "GST Class" "GST Usage" "Class for GST + PST"
"Usage for GST + PST"
```

GTM tax classes can have a maximum of three characters, and tax usage codes eight characters. An unused optional value is represented by a null string (" " or "").

The class file can have any name or extension. However, code values in .csv files must be separated by commas instead of blank characters. The file must be located in the home directory for the Progress session.

Example Your current GST codes are 0, 1, and 2, and you want to change them to A, B, and C, plus add a G to indicate GST only.

```
"0" "AG" "" "A" ""
"1" "BG" "" "B" ""
"2" "CG" "" "C" ""
```

Defining Custom Codes for Provinces, Counties, and Cities

The generated codes for tax zones, tax environments, and tax types consist of text strings that identify the province, county, and city. By default, the code generation rules define the structure of these text strings. However, if you need a different naming convention, you can create geographic files for province codes, county names, and/or city names.

Tip
A .csv file is a Windows comma-separated values file format that saves values recorded in a spreadsheet.

See “Code Generation Rules” on page 155.

Fig. 9.25
Province, County, and City Files in CAN to GTM-Setup (2.13.22.9)

txcancnv.p b+ 2.13.22.9 CAN to GTM - Setup 05/09/00

Delete Previous GTM: no

Convert Tax Masters: no

Country Code: usa

Last Tax Code: usa00000

Generated Separator: -

Class File: _____

Province File: _____

County File: _____

City File: _____

Display Status: no

Code Generation Rules

One Word	Word 1	Word 2
Sep/NoSep	Sep/NoSep	Sep/NoSep
<u>3</u>	<u>3</u>	<u>0</u>
<u>4</u>	<u>2</u>	<u>2</u>
<u>7</u>	<u>4</u>	<u>4</u>

Maximum Sum 14 16

Output: Batch ID:

Create a separate file for each kind of text string and reference the file in CAN to GTM–Setup as shown in Figure 9.25. A geographic file is the same as a class file, except that the file is formatted as follows:

```
"Current Code or Name" "GTM Text String"
```

Example To map province codes for the provinces of Manitoba and Quebec, create a province file with these lines:

```
"MANI" "MB"
"QUE" "QB"
```

Tip
You only need to define codes for conditions not already supported by code generation rules.

Processing Logic

This program creates MFG/PRO records as described in Table 9.33.

Type of Record	Explanation
Tax zones	Based on code generation rules or a class file, setup builds the tax zone hierarchy for the country and all province/county/city combinations used in your current system.
Tax types	Based on code generation rules or a class file, setup generates tax types for the province/county/city combinations used in your current system.
Tax environments	Based on code generation rules or a class file, setup generates tax environments for all ship-to tax zones.
Tax rates	Based on code generation rules or a class file, setup generates tax rates for the tax jurisdictions and percentages used in your current system.
Tax classes	By default, the setup generates tax classes based on your Canadian GST master records, in which GST and PST are represented as separate codes. However, the GTM setup generates tax classes for GST only and GST + PST. It sets up PST only as GST + PST with a GST tax rate of 0%. It sets up non-taxable as GST only with GST and PST tax rates of 0%. To distinguish the generated codes, the setup appends the letter P to the GST + PST code. For example, if your current GST classes are 0, 1, and 2, the generated GTM classes are 0, 1, and 2 (for GST only) and 0P, 1P, and 2P (for GST + PST). The system does not automatically generate tax usages. You can choose to bypass the default setup behavior by defining a class file. For more information, see “Defining Custom Codes for Provinces, Counties, and Cities” on page 158.

Table 9.33
New GTM Records

Type of Record	Explanation
Tax usages	By default, setup does not generate tax usages. However, you can do this with a class file.
Country code	The setup generates a record for the default country code you specify when you run the setup. This country code is the top-level zone in the tax zone hierarchy.
Company addresses and address list types	In GTM, company sites require a corresponding company address record because taxes are calculated by address, not site. The setup verifies that each company site has an address record and creates any missing ones, along with any needed address list type records. The setup also creates a ~taxes address record to provide a default tax address whenever a transaction is missing a company site code.

GTM Control Settings

Setup defines Global Tax Management Control (2.13.24) as described in Table 9.34.

Table 9.34
Updates to GTM
Control Settings

Field	Explanation
Country Code	As specified during the setup
Tax Method	01
Tax-By-Line	No
Accrue Tax at Receipt	Yes
Discount Tax at Invoice	No
Discount Tax at Payment	No
Last Tax Code	As specified during the setup
Rounding Method	Value specified in System/Account Control (36.1)

CAN to GTM–Setup

Based on your implementation decisions, use CAN to GTM–Setup (2.13.22.9) to set up GTM for Canadian tax processing.

Fig. 9.26
CAN to GTM–
Setup (2.13.22.9)

txcancnv.p b+ 2.13.22.9 CAN to GTM - Setup 05/09/00

Delete Previous GTM: no

Convert Tax Masters: no

Country Code: usa

Last Tax Code: usa00000

Generated Separator: =

Class File: _____

Province File: _____

County File: _____

City File: _____

Display Status: no

Code Generation Rules

One Word	Word 1	Word 2
Sep/NoSep	Sep/NoSep	Sep/NoSep
3	3	0
4	4	2
7	9	5
14	16	3

Maximum Sum

Output:
Batch ID:

Warning As noted previously, the purpose of the conversion is to replicate your existing tax processing setup in GTM. Do not attempt to implement new GTM functionality until after the entire conversion is complete. Do not change settings in the new GTM records or in Global Tax Management Control (2.13.24). If you do, the master and/or transaction conversions may fail.

Delete Previous GTM. This option determines whether the setup deletes previously created GTM records from the database. If you select this option, the setup deletes tax zones, tax types, tax environments, transaction tax details, and other GTM records from the database.

- Enter No if you have not yet converted your database to GTM.
- Enter Yes to clean up the database if it contains GTM records from unsuccessful conversion or installation attempts.

Convert Tax Masters. This option determines whether the setup generates the GTM master records from the master tables for Canadian GST and PST.

- Enter Yes to create GTM records corresponding to Canadian tax masters: tax classes, tax types, tax zones, tax environments, tax rates, and so on. The audit trail shows the new GTM records.
- Enter No if you only want to delete previous GTM records and do not want the setup program to generate new GTM records.

Country Code. This country code is the top-level tax zone in the tax zone hierarchy. All other tax zones sum into this one.

If Global Tax Management Control already has a country code, it displays here. Otherwise, the setup sets the default country code to CAN. If you override the value here, the setup assigns it to the control program.

Last Tax Code. Enter a value to update the corresponding field in Global Tax Management Control. In GTM, tax codes identify individual tax rates. Codes are generated sequentially based on the value of Last Tax Code in the GTM control program.

The default Last Tax Code is an 8-character value that consists of the GTM country code and a right-justified integer with placeholder zeros. For example, for country code CAN, the default Last Tax Code is CAN00000. The system assigns the number CAN00001 to the first tax rate record created in GTM and increments this number for subsequent rates.

If you want tax codes to have a different format, enter a different prefix. Codes display alphanumerically in screens and reports. Tax codes that are totally numeric are left-justified and have no placeholder zeros. For example, codes 1 through 30 display in a report column as follows:

```
1
...
19
2
20
...
30
```

Generated Separator. Enter a character to be used as a separator in system-generated tax zones, types, and environments. Using a separator can improve the readability of the component elements of these codes.

The default separator is the dash (–), but you can enter any character. A sample GTM code that uses the dash separator is BC–Van for Vancouver, British Columbia. If you do not want to use separators in codes, enter blank. However, you cannot use blank as a separator character.

Class File. To provide custom mapping of Canadian tax classes to GTM classes and usage codes, specify an ASCII file with conversion information. [▶ See page 157.](#)

Province, County, City File. To override default code generation rules, specify specific values for geographic locations in an ASCII file. [▶ See page 158.](#)

Code Generation Rules. Enter appropriate values for your organization. [▶ See page 155.](#)

Display Status. This setting determines whether the system displays status messages online during the conversion. These messages list database tables and their indexes as they are converted. If you select this option, messages display on the screen and the printed report.

Updates to Company Addresses

In GTM, company sites require a corresponding company address record because taxes are calculated by address, not site. The setup creates any missing company address records for company sites. However, the setup does not populate these new address records with the city, county, province, and country. You must supply this information manually in Company Address Maintenance (2.12).

Also set up tax zone codes to support these new addresses if the setup did not already generate codes for these tax jurisdictions. Do this in Tax Zone Maintenance (2.13.3.13). Then, assign the tax zone to the address.

Set Up Audit Trail

CAN to GTM–Setup prints a report of updated tax master records for GST and PST rates. For GST rates, the report shows the GST class, description, starting and ending effective dates, the GST percent, and the general ledger tax accounts for accounts payable and accounts receivable. For PST, the report shows the province/county/city, tax effective date, tax rate for the effective date, whether PST is based on GST, and the generated GTM tax zone and sums-into zone.

Figure 9.27 and Figure 9.28 show the audit trail formats.

Fig. 9.27
GST Audit Trail

Processing: Create GTM GST from GST masters							
GST Class	Description	Start	Eff	End	Eff	GST Pct	AP GST Acct AR GST Acct
0	GST 0	01/01/97				0.00%	1400 2400
1	GST 1	01/01/97				5.00%	1400 2400
2	GST 2	05/29/97	12/31/99			7.00%	1400 2400
3	GST 3	07/02/97	12/31/99			10.00%	1400 2400

Fig. 9.28
PST Audit Trail

Processing: Create GTM PST from PST masters							
Province	County	City	Effective	Tax	On GST	Tax Zone	Sums-Into Tax Zone
ALB		Calgary	01/01/96	0.00%	No	ALB-Calgary	ALB
BC		Vancouver	01/01/96	7.00%	Yes	BC-Vancouv	BC
NFL		Bay Roberts	01/01/96	8.00%	No	NFL-BayRob	NFL
ONT		Bala	01/01/96	8.00%	Yes	ONT-Bala	ONT
PEI		Souris	01/01/96	10.00%	Yes	PEI-Souris	PEI

Troubleshooting GTM Setup

After you run CAN to GTM–Setup, verify that the GTM setup is correct before you continue with the conversion. The problems listed in Table 9.35 can cause errors or unexpected values. Before you proceed to the master conversion, review the audit trail, the GTM reports for the new records, and Global Tax Management Control settings. Correct any problems before going on.

Subsequent setups do not automatically overwrite records created by previous ones. To set up new records, you must first delete the old ones. If you rerun the setup, you must remove the records created by the earlier setup attempt. To do this, rerun the setup with Delete Previous GTM set to Yes and Convert Tax Masters set to Yes.

Note If you must rerun the setup after you have run any of the other conversion programs, restore the database first. Then, rerun the setup and any other conversion programs you ran previously. This is necessary to perpetuate changes to master data, transactions, and tax details.

Error	Explanation
Tax system must be Canadian.	The CAN to GTM setup can only be run on a Canadian tax system.
Must delete previous GTM when converting.	When you set Convert Tax Masters to Yes, you must also set Delete Previous GTM to Yes.
On GST has changed, cannot convert prior to this date.	The setup can convert only the current tax environment, not previous variations. If a city's GST Only status was changed in the span of time included in the conversion, the setup creates tax environments only for current conditions.

Table 9.35
Troubleshooting
the GTM Setup

Warning Do not correct records programmatically. This approach often causes additional problems.

How the Setup Changes GTM Records

The following information is provided to assist developers and others who require technical information on how the setup updates the database.

The menu-level program for CAN to GTM–Setup is `txcancnv.p`. This program calls subprograms (primarily `txcantax.p`) that set the GTM tax values in the individual database tables.

Table 9.36 lists the affected database tables and summarizes the changes.

Tables	Summary of Changes
ad_mstr	<code>txcantax.p</code> creates one ~taxes record for the database. It also scans <code>si_mstr</code> and creates an address record for any company site that does not already have one.
code_mstr	For each <code>vt_mstr</code> record, <code>txcantax.p</code> creates tax classes for GST only and GST + PST. If a class file is referenced, it creates the specified tax classes and tax usages, if any. For the GST rate in <code>vt_mstr</code> and each PST rate in <code>tax_mstr</code> , <code>txcantax.p</code> creates a tax type code. For non-taxable transactions, it also creates a default NON-TAX tax type. Finally, for each ship-to tax zone, <code>txcantax.p</code> creates a tax environment and assigns it the tax types associated with the tax zone.
ctry_mstr	<code>txcantax.p</code> creates a record for the default country code specified in the selection data.
ls_mstr	<code>txcantax.p</code> creates <code>ls_mstr</code> record for each new <code>ad_mstr</code> record, if any.

Table 9.36
Changes to GTM
Records

Tables	Summary of Changes
tx2_mstr	For each vt_mstr record, txcantax.p creates a tax rate for GST only and GST + PST. For each tax_mstr record, txcantax.p creates multiple tx2_mstr records, one for each combination of (1) GST only and GST + PST and (2) each GST class. (For example, if there are three GST classes, the setup generates six tx2_mstr records.) It also runs txtx2_nt.i to create a non-taxable tax rate and txtxmeth.i to create tax method 01.
txc_ctrl	txcantax.p sets txc_etry_code and txc_tax_code from the selection data. It sets txc_method to 01, txc_by_line to Yes, txc_inv_disc and txc_pmt_disc to No, and txc_rcpt_tax_point to Yes.
txbd_det	txcantax.p creates a tax base record for PST + GST.
txe_mstr	txcantax.p creates tax environment zone detail records for every tax environment code it generates for code_mstr.
txed_det	txcantax.p creates tax environment tax type detail records for every tax environment code it generates for code_mstr.
txz_mstr	txcantax.p creates a top-level sums-into tax zone for the new ctry_mstr record. For each province/county/city combination in tax_mstr, it creates a ship-to tax zone.

Converting Master Records

Once you finish the GTM setup, the next activity is to update tax settings in the following master records:

- Suppliers
- Trailer codes
- Customers
- Service categories
- Product lines
- Service agreement terms
- Items

GTM has additional fields and may require new values for existing fields.

CAN to GTM–Masters

Use CAN to GTM–Masters (2.13.22.10) to convert master records.

Fig. 9.29
CAN to GTM–
Masters
(2.13.22.10)

txcanmst.p b+ 2.13.22.10 CAN to GTM - Masters 05/09/00

	All	From:	To:
Suppliers:	<u>no</u>	_____	_____
Customers:	<u>no</u>	_____	_____
Countries For Addresses:	<u>no</u>	_____	_____
Zones For Addresses:	<u>no</u>	_____	_____
Product Lines:	<u>no</u>	_____	_____
Items:	<u>no</u>	_____	_____
Trailer Codes:	<u>no</u>	_____	_____
Service Categories:	<u>no</u>	_____	_____
Service Agreement Terms:	<u>no</u>	_____	_____
Class File:	_____		
Display Status:	<u>no</u>		Output: Batch ID:

In addition to updating the tax settings in the master records, this program assigns tax zone codes to supplier, customer, and company address records. For verification of changes, the program generates an audit trail.

Important Before you run CAN to GTM–Masters, do the following:

- Run CAN to GTM–Setup (2.13.22.9).
- To avoid record-contention conflicts with other users, shut down the database and restart it when no other users are on the system.

You can convert all records, a range of records, or individual records. This program converts records in the order in which their selection options display on the screen. For separate audit trail reports, run the report separately for each type of record.

If you created a class file during the setup step, specify its name in the Class File field. Display Status, Output, and Batch ID are the same as in the setup program.

See “Defining Custom Tax Class and Tax Usage Codes” on page 157.

Master Audit Trail

CAN to GTM–Master prints a report of changed records. The format varies depending on the records included in the conversion. For each group of converted records, the report shows the record number and name followed by the before and after tax information, such as country code, tax zone code, GST and PST taxable status, whether tax is included in item amounts, tax class, and tax usage.

Groups of converted records are printed in the same order as the screen selection criteria, and each group is separated by a page break. Warning and error messages identify potential conversion problems.

Figure 9.30 and Figure 9.31 show representative audit trail formats.

Fig. 9.30
Customers Audit Trail

Processing: Customers							
Address	Name		GST	PST	Tax	In	TxC TaxUsage
-----	-----		---	---	---	---	-----
10000000	Harris Steel	Before	No	No	No	0	
		After	No		No	0	
10000001	Computer Services	Before	Yes	Yes	No	1	
		After	Yes		No	1P	
10000002	Niagara Byteworks	Before	Yes	Yes	No	2	
		After	Yes		No	2P	

Fig. 9.31
Countries for
Addresses Audit Trail

Processing: Countries For Addresses					
Address	Name		Ctry	Country	
-----	-----		---	---	
10000000	Harris Steel	Before		Canada	
		After	CAN	Canada	
10000001	Computer Services	Before		Canada	
		After	CAN	Canada	
10000002	Niagara Byteworks	Before		Canada	
		After	CAN	Canada	

Troubleshooting Master Conversions

The error messages in the audit trail identify conditions you should analyze and address before you convert transactions. Table 9.37 lists some common problems along with explanations. Before you make corrections, restore the database from backup.

Warning Do not proceed to the transaction conversion until the master conversion audit trail is free of errors.

Table 9.37
Troubleshooting
the Master
Conversion

Error	Explanation
Tax class cannot be converted.	Class file does not contain a GST class that matches the one in the master record.
GST class must exist 0%.	GST class master must have at least one GST class with a zero percentage.
Blank tax class not allowed.	GST class is blank in the class file.

Error	Explanation
Tax class cannot exceed 3 characters (xxx).	GST class in the class file is longer than three characters. The message shows the first three characters.
Tax class does not exist (x).	GST class in the class file does not exist in the GST master.
Tax class is not unique (x).	GST class occurs in multiple places in the class file.
Tax class does not exist (xxx).	GTM tax class in the class file does not exist in the GTM tax class master.
Tax usage cannot exceed 8 characters (xxxxxxxx).	GTM tax usage in the class file is longer than eight characters. Message shows the first eight characters.
Tax usage does not exist (xxxxxxxx).	GTM tax usage in the class file does not exist in the GTM tax usage master.
Tax class/tax usage combination is not unique (xx xxxxxxxx).	GTM tax class and tax usage combination occurs in multiple places in the class file.
Conversion will ignore tax class (x).	Class file does not have an entry for a GST class that is in the class master.
x, xxx, and xxxxxxxx are placeholders for the actual codes displayed in the error message.	

How the Conversion Changes Master Records

The following is provided to assist developers and others who require technical information on how the master conversion updates the database.

The menu-level program for CAN to GTM–Masters, `txcanmst.p`, calls subprograms that set the GTM tax values in the individual tables.

When setting the GTM tax class value, these programs can either set the existing tax class code or retrieve an alternate value from a class file.

See
“Implementing
GTM” on
page 155.

Table 9.38 lists the affected database tables and summarizes the changes.

Table 9.38
Changes to Master
Records

Tables	Summary of Changes
ad_mstr	In supplier records, <code>txcanvd.p</code> sets <code>ad_taxable</code> from <code>vd_taxable</code>. It also sets <code>ad_taxc</code> and <code>ad_tax_usage</code> from <code>ad_taxc</code> or from the class file, if any. If <code>vd_taxable</code> is No, <code>ad_taxc</code> is GST only; otherwise, GST + PST. In customer records, <code>txcancm.p</code> sets <code>ad_taxable</code> from <code>cm_taxable</code> and <code>ad_tax_in</code> from <code>cm_tax_in</code>. It also sets <code>cm_taxc</code> and <code>ad_tax_usage</code> from <code>cm_taxc</code> or from the class file, if any. If <code>cm_pst</code> is No, the tax class is GST only; otherwise, GST + PST. In all address records, <code>txcanct.p</code> sets <code>ad_ctry</code> from <code>ad_country</code> and visa versa. <code>txcanzn.p</code> calls <code>txtxzget.p</code> to set <code>ad_tax_zone</code>.
fsc_mstr	<code>txcanfsc.p</code> sets <code>fsc_taxc</code> from <code>fsc_taxc</code> or from the class file if any. Tax class is set to GST only.
pl_mstr	<code>txcanpl.p</code> sets <code>pl_taxc</code> from <code>pl_taxc</code> or from the class file, if any. If <code>pl_pst</code> is No, the tax class is GST only; if it is Yes, to GST + PST.
pt_mstr	<code>txcanpt.p</code> sets <code>pt_taxc</code> from <code>pt_taxc</code> or from the class file, if any. Tax class is set to GST only.
sv_mstr	<code>txcansv.p</code> sets <code>sv_taxc</code> and <code>sv_tax_usage</code> from <code>sv_taxc</code> or from the class file, if any. Tax class is set to GST only.
trl_mstr	<code>txcantrl.p</code> sets <code>trl_taxc</code> from <code>trl_taxc</code> or from the class file, if any. It also sets <code>trl_taxable</code> to Yes. If <code>trl_pst</code> is No, the tax class is GST only; if it is Yes, to GST + PST.

Converting Transaction Records

Once you finish converting master records, you can convert the following transaction records:

- Purchase orders and receipts
- Accounts payable vouchers and payments
- Service contracts, calls, and return material authorizations
- Sales quotes and orders
- Accounts receivable memos, invoices, and payments

In GTM, every transaction subject to tax has a transaction tax detail record. This record stores the information used to calculate tax.

CAN to GTM–Transactions

Use CAN to GTM–Transactions (2.13.22.11) to convert existing transaction records.

txcantrn.p b+ 2.13.22.11 CAN to GTM - Transactions 05/09/00

	All	From:	To:
Purchasing:	no	_____	_____
AP Vouchers:	no	_____	_____
AP Payments:	no	_____	_____
Service Contracts:	no	_____	_____
Service Calls:	no	_____	_____
RMA Orders:	no	_____	_____
Sales Quotes:	no	_____	_____
Sales Orders:	no	_____	_____
AR Memos:	no	_____	_____
AR Invoices:	no	_____	_____
AR Payments:	no	_____	_____
Class File: _____		Output: _____	
Display Status: no		Batch ID: _____	

Fig. 9.32
CAN to GTM–
Transactions
(2.13.22.11)

In addition to updating transactions, this program generates an audit trail for verification of changes.

Important Before you run CAN to GTM–Transactions, do the following:

- Run CAN to GTM–Setup (2.13.22.9) and CAN to GTM–Masters (2.13.22.10).
- To avoid record-contention conflicts with other users, shut down the database and restart when no other users are on the system.

You can convert all records, a range of records, or individual records. This program converts records in the same order they display on the screen.

In some cases, the record sequence is important. Purchasing transactions must be converted before accounts payable vouchers and vouchers before payments. Accounts receivable memos and invoices must be converted before payments.

If you created a class file during the setup step, specify its name in the Class File field. Display status, output, and Batch ID are the same as in the setup program.

Tip
For separate audit trail reports, run the report separately for each type of record.

♦ See “Defining Custom Tax Class and Tax Usage Codes” on page 157.

Transaction Audit Trail

The transaction conversion prints a report of changed records. The format varies depending on the records included in the conversion. For each group of converted records, the report shows the transaction number and name followed by the before and after tax information for each line item, such as taxable status, tax environment, tax class, and tax usage. Groups of converted records are printed in the same order as the screen selection criteria, and each group is separated by a page break.

Warning and error messages identify potential conversion problems. Messages that appear at the end of a transaction apply to the entire transaction; those that appear between the Before and After line apply only to that line.

Figure 9.33 and Figure 9.34 show representative audit trail formats.

Fig. 9.33
Accounts Payable
Audit Trail

Processing: AP Vouchers									
Ref	Type	Supplier	Ln	GST	TxC	TaxUsage	Tax Env	vod_type	vod_tax vod_tax_at
105	VO	32487432		Before	No				
				After	Yes	0P	PEI-GG		
			1	Before	No	1		R	1
				After	Yes	1	PEI-GG	R	Yes
			2	Before	No				1
				After	No			T	t No

Fig. 9.34
Service Calls Audit
Trail

Processing: Service Calls											
Call ID	Call/SR	Cust	Cust PST	Ln	Record		GST	PST	TxC	TaxUsage	Tax Env
CA124		10000000	Yes	1	Call	Before	Yes		1		
						After	Yes		1P		NB
CA125		10000001	Yes	1	Item	Before	Yes	Yes	1		
						After	Yes		1P		NB
CA126		10000002	Yes	1	Billing	Before	Yes	Yes	1		
						After	Yes		1P		NB
				2	Billing	Before	No	Yes	0		
						After	Yes		1P		NB

Troubleshooting Transaction Conversions

The error messages in the audit trail identify conditions you should analyze and address before you resume live GTM processing. Table 9.39 lists some common problems along with explanations. Before you make corrections, restore the database from backup.

Warning Do not resume live processing until the transaction conversion audit trail is free of errors. Do not correct transaction records programmatically. This approach often causes additional problems.

In addition to examining the audit trail, it is advisable to review the Tax Detail by Transaction Report (2.13.15.3). This report shows the tax environments, tax types, and tax amounts for the converted records. Verify that tax calculations are what you expect.

Converted transactions may have minor differences in before/after tax amounts. These occur because GTM uses a different calculation algorithm or rounding method than your current system. To synchronize the general ledger with the converted transactions, record adjusting entries.

Error	Explanation
GST class must exist 0%.	The GST class master must have at least one GST class with a zero percentage.
Freight, brokerage, or duty charges cannot be converted.	There is no equivalent ability in GTM.
Detail tax environment must match header.	In accounts payable vouchers and accounts receivable debit/credit memos, the tax environment must be the same in both the header and detail lines.

Table 9.39
Troubleshooting
the Transaction
Conversion

To eliminate ambiguity, the audit trail shows before and after values for purchasing, accounts payable, and accounts receivable records by their Progress database field name, not their screen label. For example, the audit trail displays voucher line types in the `vod_type` column.

As you interpret the audit trail for the transaction conversion, it can be helpful to see Table 9.40 through Table 9.44. These tables summarize the nature of before/after tax values.

Note In these tables, quotation marks indicate an untranslatable value.

Table 9.40CAN to GTM,
Purchasing
Transactions

Status	Tax System	pod_taxable	prh_tax_at
Taxable	CAN	Yes	Tax class
	GTM	Yes	"Yes"
Non-taxable	CAN	No	"0"
	GTM	Yes	"Yes"

Table 9.41CAN to GTM, AP
Voucher Receiver
Lines

Status	Amt	Tax System	GST	TxC	vod_type	vod_tax	vod_tax_at
Taxable	Item	CAN	Yes	GST class	"R"	Blank	GST class
		GTM	Yes	Tax class	"R"	Blank	"Yes"
	Tax	CAN	No	Blank	Blank	GST class	Blank
		GTM	No	Blank	"T"	"t"	"No"
Non-taxable	Item	CAN	No	Blank	"R"	Blank	0% GST class
		GTM	Yes	Tax class	"R"	Blank	Blank
	Tax ^a	CAN	No	Blank	Blank	GST class	Blank
		GTM	—	—	—	—	—

a. The conversion deletes Canadian tax lines resulting from non-taxable amounts.

Table 9.42CAN to GTM, AP
Voucher Memo
Lines

Status	Amt	Tax System	GST	TxC	vod_type	vod_tax	vod_tax_at
Taxable	Item	CAN	Yes	Blank	Blank	Blank	GST class
		GTM	Yes	Tax class	Blank	Blank	"Yes"
	Tax	CAN	No	Blank	Blank	GST class	Blank
		GTM	No	Blank	"T"	"t"	"No"
Non-taxable	Item	CAN	No	Blank	Blank	Blank	0% GST class
		GTM	Yes	Tax class	Blank	Blank	"No"
	Tax ^a	CAN	No	Blank	Blank	GST class	Blank
		GTM	—	—	—	—	—

a. The conversion deletes Canadian tax lines resulting from non-taxable amounts.

Table 9.43CAN to GTM, AR
Invoices

Status	Amt	Tax System	ard_tax	ard_tax_at	ard_taxc
Taxable	Item	CAN	Blank	GST class	Blank
		GTM	Blank	Tax class	Tax class
	Tax	CAN	GST class or blank ^a	Blank	Blank
		GTM	“t”	“No”	Blank
Non-taxable	Item	CAN	Blank	0% GST class	Blank
		GTM	Blank	Tax class	Tax class
	Tax ^b	CAN	0% GST class	Blank	Blank
		GTM	—	—	—

a. Blank for PST.

b. The conversion deletes Canadian tax lines resulting from non-taxable amounts.

Table 9.44CAN to GTM, AR
DR/CR Memos

Status	Amt	Tax System	ard_tax	ard_tax_at	ard_taxc
Taxable	Item	CAN	Blank	GST class	Blank
		GTM	Blank	“Yes”	Tax class
	Tax	CAN	GST class ^a	Blank	Blank
		GTM	“t”	“No”	Blank
Non-taxable	Item	CAN	Blank	0% GST class	Blank
		GTM	Blank	“No”	Tax class
	Tax ^b	CAN	—	—	—
		GTM	—	—	—

a. DR/CR memos do not calculate PST.

b. The conversion deletes Canadian tax lines resulting from non-taxable amounts.

How the Conversion Changes Transaction Records

The following information is provided to assist developers and others who require technical information on how the transaction conversion updates the database.

The menu-level program for CAN to GTM–Transactions is `txcantrn.p`. This program calls subprograms that set the GTM tax values in the individual database tables. For all transactions, the conversion also generates corresponding tax detail records in `tx2d_det`.

When setting the GTM tax class value, these programs either set the existing tax class code or retrieve an alternate value from a class file.

Table 9.45 lists the affected database tables and summarizes the changes.

See “Defining Custom Tax Class and Tax Usage Codes” on page 157.

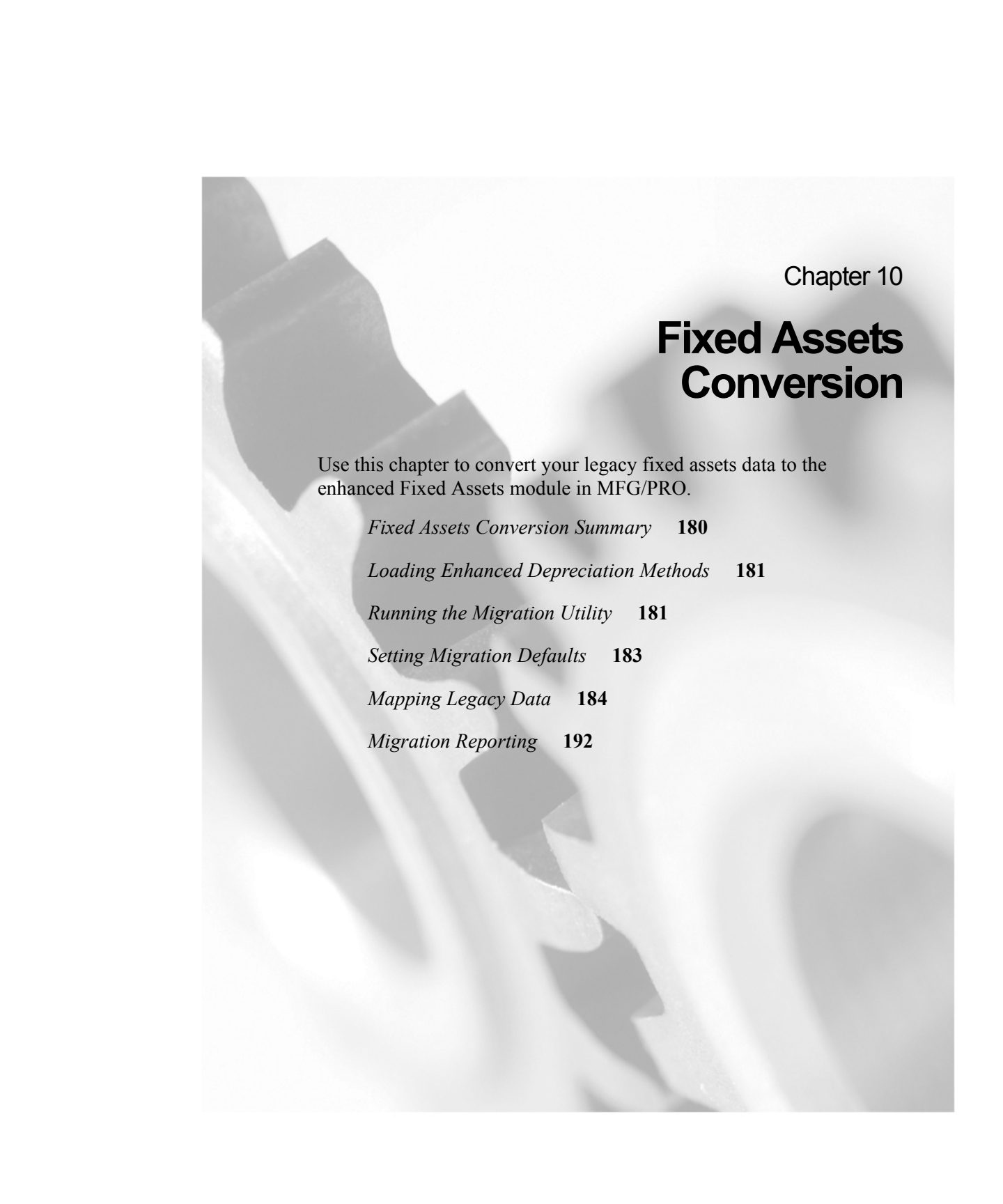
Table 9.45
Changes to
Transaction
Records

Tables	Summary of Changes
ard_det	For debit/credit memos, <code>txcanarm.p</code> sets <code>ard_tax</code> and <code>ard_tax_at</code> . It also sets <code>ard_taxc</code> (GST only), <code>ard_tax_usage</code> , and <code>ard_tax_at</code> .
ar_mstr	For debit/credit memos, <code>txcanarm.p</code> sets <code>ar_tax_env</code> .
ca_mstr	<code>txcanca.p</code> sets <code>ca_taxc</code> and <code>ca_tax_usage</code> from <code>ca_taxc</code> or from the class file, if any. If <code>cm_pst</code> is No, <code>ca_taxc</code> is GST only; otherwise, it is GST + PST. It also sets <code>ca_tax_env</code> using <code>txtxeget.p</code> .
idh_hist	<code>txcanari.p</code> sets <code>idh_taxc</code> and <code>idh_tax_usage</code> from <code>idh_taxc</code> or from the class file, if any. It sets <code>idh_taxable</code> to Yes. If <code>idh_pst</code> is No, <code>idh_taxc</code> is GST only; otherwise, it is GST + PST. It also sets <code>idh_tax_env</code> using <code>txtxeget.p</code> .
ih_hist	<code>txcanari.p</code> sets <code>ih_taxable</code> to Yes and <code>ih_pst_pct</code> to 0. It sets <code>ih_taxc</code> (GST only) and <code>ih_tax_usage</code> from <code>ih_taxc</code> or from the class file, if any. It also sets <code>ih_tax_env</code> using <code>txtxeget.p</code> .
itm_det	<code>txcanca.p</code> sets <code>itm_taxc</code> (GST + PST) and <code>itm_tax_usage</code> from <code>itm_taxc</code> or from the class file, if any. It sets <code>itm_taxable</code> to Yes. It also sets <code>itm_tax_env</code> using <code>txtxeget.p</code> .
pod_det	<code>txcanpo.p</code> sets <code>pod_taxable</code> to Yes and <code>pod_tax_env</code> using <code>txtxeget.p</code> . If <code>pod_pst</code> is No, then <code>pod_taxc</code> is 0; otherwise, <code>pod_taxc</code> is 0P.
po_mstr	<code>txcanpo.p</code> sets <code>po_tax_pct[1]</code> , <code>po_tax_pct[2]</code> , and <code>po_tax_pct[3]</code> to 0. It sets <code>po_taxable</code> to Yes. It sets <code>po_taxc</code> and <code>po_tax_usage</code> from the <code>ad_taxc</code> value for the corresponding supplier. It also sets <code>po_tax_env</code> using <code>txtxeget.p</code> .

Table 9.45 — *Changes to Transaction Records* (Page 1 of 3)

Tables	Summary of Changes
prh_hist	<code>txcanpo.p</code> sets <code>prh_taxc</code> from <code>pod_taxc</code> , <code>prh_tax_usage</code> from <code>pod_tax_usage</code> , and <code>prh_tax_env</code> from <code>pod_tax_env</code> . Since <code>po_taxable</code> is Yes, it sets <code>prh_tax_at</code> to Yes.
qod_det	<code>txcanqo.p</code> sets <code>qod_taxable</code> to Yes. It sets <code>qod_taxc</code> and <code>qod_tax_usage</code> from <code>qod_taxc</code> or from the class file, if any. It sets <code>qod_taxable</code> to Yes. If <code>qod_pst</code> is No, tax class is GST only; otherwise, it is GST + PST. It also sets <code>qod_tax_env</code> using <code>txtxeget.p</code> .
qo_mstr	<code>txcanqo.p</code> sets <code>qo_tax_pct[1]</code> , <code>qo_tax_pct[2]</code> , and <code>qo_tax_pct[3]</code> to 0. It sets <code>qo_taxable</code> to Yes and <code>qo_pst_pct</code> to 0. It sets <code>qo_taxc</code> and <code>qo_tax_usage</code> from <code>qo_taxc</code> or from the class file, if any. If <code>cm_pst</code> is No, tax class is GST only; otherwise, it is GST + PST. It also sets <code>qo_tax_env</code> using <code>txtxeget.p</code> .
rma_mstr	<code>txcanrma.p</code> sets <code>rma_taxc</code> from <code>rma_taxc</code> or from the class file, if any. It sets <code>rma_taxable</code> to Yes. If <code>cm_pst</code> is No, tax class is GST only; otherwise, it is GST + PST.
sad_det	<code>txcansc.p</code> sets <code>sad_taxc</code> and <code>sad_tax_usage</code> from <code>sad_taxc</code> or from the class file, if any. It sets <code>sad_taxable</code> to Yes. If <code>sad_pst</code> is No or <code>sa_prefix</code> is QA, tax class is GST only; otherwise, it is GST + PST. It also sets <code>sad_tax_env</code> from <code>sa_site</code> and <code>sa_taxc</code> using <code>txtxeget.p</code> .
sa_mstr	<code>txcansc.p</code> sets <code>sa_tax_pct[1]</code> , <code>sa_tax_pct[2]</code> , and <code>sa_tax_pct[3]</code> to 0. It sets <code>sa_taxable</code> to Yes and <code>sa_can_tax</code> to 0. It sets <code>sa_taxc</code> and <code>sa_tax_usage</code> from <code>sa_taxc</code> or from the class file, if any. If <code>cm_pst</code> is No, tax class is GST only; otherwise, it is GST + PST. It also sets <code>sa_tax_env</code> using <code>txtxeget.p</code> .
sfb_det	<code>txcanca.p</code> sets <code>sfb_taxc</code> from <code>itm_taxc</code> and <code>sfb_tax_usage</code> from <code>itm_tax_usage</code> . It sets <code>sfb_taxable</code> to Yes. It also sets <code>sfb_tax_env</code> using <code>txtxeget.p</code> .
sod_det	<code>txcanso.p</code> sets <code>sod_taxc</code> and <code>sod_tax_usage</code> from <code>sod_taxc</code> or from the class file if any. It sets <code>sod_taxable</code> to Yes. If <code>sod_pst</code> is No, tax class is GST only; otherwise, it is GST + PST. It also sets <code>sod_tax_env</code> using <code>txtxeget.p</code> .
so_mstr	<code>txcanso.p</code> sets <code>so_taxable</code> to Yes and <code>so_pst_pct</code> to 0. It sets <code>so_tax_pct[1]</code> , <code>so_tax_pct[2]</code> , and <code>so_tax_pct[3]</code> to 0. It sets <code>so_taxc</code> and <code>so_tax_usage</code> from <code>so_taxc</code> or from the class file, if any. If <code>cm_pst</code> is No, tax class is GST only; otherwise, it is GST + PST. It also sets <code>so_tax_env</code> using <code>txtxeget.p</code> .
Table 9.45 — <i>Changes to Transaction Records</i> (Page 2 of 3)	

Tables	Summary of Changes
tx2d_det	txcanpo.p creates tax details for purchase orders (GTM transaction type 20), receivers (21), reconciliations (23), and returns (25). txcanapv.p creates tax details for vouchers (22) and recurring vouchers (32). txcanapp.p creates tax details for accounts payable tax on discount at payment (29). txcanqo.p creates tax details for sales quotes (10). txcanso.p creates tax details for invoiced service calls (38), return material authorizations (36), sales orders (11), and pending invoices (13). txcanarm.p creates tax details for debit/credit memos (18). txcanari.p creates tax details for invoices (16). txcanarp.p creates tax details for accounts receivable tax on discount at payment (19). txcansc.p creates tax details for service quotes (33) and service contracts (34).
vod_det	txcanapv.p sets vod_taxable to Yes. It sets vod_taxc (GST only) and vod_tax_usage from vod_tax_at. It sets vod_tax, vod_tax_at, and vod_type. It also sets vod_tax_env using txtxeget.p.
vo_mstr	For vouchers, txcanapv.p sets vo_tax_pct[1], vo_tax_pct[2], and vo_tax_pct[3] to 0. It sets vo_taxable, vo_taxc, and vo_tax_usage. It also sets vo_tax_env using txtxeget.p.
Table 9.45 — <i>Changes to Transaction Records</i> (Page 3 of 3)	



Chapter 10

Fixed Assets Conversion

Use this chapter to convert your legacy fixed assets data to the enhanced Fixed Assets module in MFG/PRO.

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Loading Enhanced Depreciation Methods **181**

Running the Migration Utility **181**

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Fixed Assets Conversion Summary

During the MFG/PRO conversion, MFG/CONV dumps legacy Fixed Assets data to a file. You specify the name and location of this file in the MFG/CONV environment prompts. Use this dump file and the Fixed Assets Migration Utility (32.25.2) to migrate legacy data to the enhanced Fixed Assets module. This utility lets you perform the following functions:

- Migrate legacy data from the fixed-assets dump file to the enhanced Fixed Assets module
- Resolve any discrepancies between the legacy data model and the enhanced model

You can use the Fixed Assets Migration Report (32.25.3) to generate a report summarizing the migrated fixed-asset data. The report shows the migrated data from the legacy system and the newly mapped data for the new system.

You can choose to include books, methods, locations, classes, and exceptions in the report.

Preliminary Setup

Prior to running the fixed assets conversion, ensure the following environment variables are set.

Table 10.1
Required
Environment
Variables

Variable	Description
DLC	Progress 9.1 install directory
ORACLE_HOME	Oracle target install directory
ORACLE_SID	System identifier for your target version Oracle database
LIBPATH	Must include target Oracle libraries
PATH	Must include target directories, not source

In addition, this section assumes you are logged on as the `mfg` user.

Loading Enhanced Depreciation Methods

Six enhanced depreciation methods are required for the Fixed Assets conversion. These are loaded manually in the target database.

- 1 Launch MFG/UTIL from the target version installation directory.
- 2 Select Database|Load Data into Database.
- 3 In the Connect Database screen, specify the path and name of the target database in the Physical Name field. Leave other fields blank and choose OK.
- 4 In the Input Directory screen, enter the full path to the /mfg directory in the target installation directory:
TVInstallDir/mfg
- 5 Press Spacebar to select the `famtmsr.d` table; choose OK to load.
- 6 Choose OK after the load completes. Exit MFG/UTIL.

Running the Migration Utility

The following sections describe the Fixed Assets Migration Utility. Use this information to map the legacy data model to the enhanced model and to resolve discrepancies. When ready, use the Create button on the Fixed Assets Migration Utility screen to load the data into the enhanced Fixed Assets module.

Fixed Assets Migration Utility (32.25.2) tracks milestones of the migration process. It also lets you map the individual migration data types—methods, books, locations, and classes—in stages and then save these intermediate stages to a migration file. After you have mapped all of the legacy data to the enhanced data model, use the Create button to load the data from the migration file into the enhanced Fixed Assets module.

Important This update can only be done once.

Fig. 10.1
Fixed Assets
Migration Utility
(32.25.2)

facvmt.p b+ 32.25.2 Fixed Assets Migration Utility 06/12/00	
Input File Name:	/qad/mfopro/eB/conv/dumpdir/fa_dump.dat
Output File Name:	fa_mgrt.dat
Default Location:	Default Class:
Migrate Retired Assets:	No
Method Conversion Completed:	No
Book Conversion Completed:	No
Location Conversion Completed:	No
Class Conversion Completed:	No
Create Date:	05/15/2000

<Update> <Master> <Create> < Save > < End >

Most of the fields in the Fixed Asset Migration Utility header cannot be updated. They display current mappings set in detail menus and screens. Use the buttons at the bottom to access the detail menus and screens. These are described in the following sections.

Buttons

Update. Use this button to update the Output File Name, Default Location, Default Class, and the Migrate Retired Assets field.

Master. Use this button to access the Master Files Migration screen.

Create. Use this button to load legacy data into the enhanced Fixed Assets module after all the data has been mapped to the enhanced model. This function can only be run once.

Save. Use this button to save the completed work to the file specified in the Output File Name field.

End. Use this button to end a migration utility session. All work is saved to the file specified in the Output File Name field.

Setting Migration Defaults

Choose update to set up the default parameters for your migration.

Use the Default Location and Default Class fields to specify a legacy location and class to default for legacy assets that do not already have this information. The location and class must be part of legacy data. You can run the Fixed Assets Migration Report (32.25.3) to generate a list of your legacy classes and locations.

Set the Migrate Retired Assets field to Yes to migrate retired legacy asset data. Set the field to No to exclude retired assets from the migration.

```

facvmt.p b+      32.25.2 Fixed Assets Migration Utility      06/12/00
-----
Input File Name: /qad/mfgpro/eb/conv/dumpdir/fa_dump.dat
Output File Name: fa_mgrt.dat
Default Location:
Default Class:
Migrate Retired Assets: No

Method Conversion Completed: No
Book Conversion Completed: No
Location Conversion Completed: No
Class Conversion Completed: No
Create Date: 05/15/2000

<Update> <Master> <Create> < Save > < End >
  
```

Fig. 10.2
Fixed Assets
Migration Utility
(32.25.2)

- 1 The Input File Name field defaults to `fa_dump.dat`. Enter only the file name. If you specified a different file name in the MFG/CONV environment prompts, specify the file name for your legacy data dump file. Press Enter to continue.
- 2 Choose the Update button.
- 3 In the Output File Name field, specify the full path, including the file name, to the location where you want to store your migration file. Use this file to store your work as you map the legacy data to the new fixed assets model. The default file name is `fa_mgrt.dat`.
- 4 In the Default Location field, enter a default legacy location ID. Fixed asset location IDs refer to the accounting location of the fixed asset. This location does not have to be the physical location of the asset.

For details, see
User Guide
Volume 4B:
Financials.

▶ For details, see *User Guide Volume 4B: Financials*.

- 5 In the Default Class field, enter a default legacy class ID.
Classes group similar fixed assets together and define:
 - GL accounts
 - Depreciation books
 - Service lives for calculating depreciation
 - Depreciation methods
- 6 In the Migrate Retired Assets field, enter Yes if you want to migrate retired assets to the new system. Enter No if you do not want to migrate retired assets.

Mapping Legacy Data

▶ For information on the new fixed-assets data models, see *User Guide Volume 4B: Financials*.

To migrate legacy data to the enhanced module, the existing data models must be mapped to the new data models. Use the Master Files Migration screen to monitor the conversion of the legacy data models. Master Files Migration also provides access to the maintenance programs for each data model. These programs let you map legacy models to enhanced models.

Fig. 10.3
Master Files
Migration

facvmt.p b+ 32.25.2 Fixed Assets Migration Utility 06/12/00	
Master Files Migration	
Method Conversion Completed:	no
Book Conversion Completed:	no
Location Conversion Completed:	no
Class Conversion Completed:	no

<Method> < Book > < Loc > <Class > < End >

Access the maintenance program for each data model using the buttons at the bottom of Master Files Migration.

Buttons

- Method.** Use this button to access Method Migration.
- Book.** Use this button to access Book Migration.
- Loc.** Use this button to access Location Migration.
- Class.** Use this button to access Class Migration.
- End.** Use this button to end a Master Files Migration session and return to Fixed Asset Migration Utility.

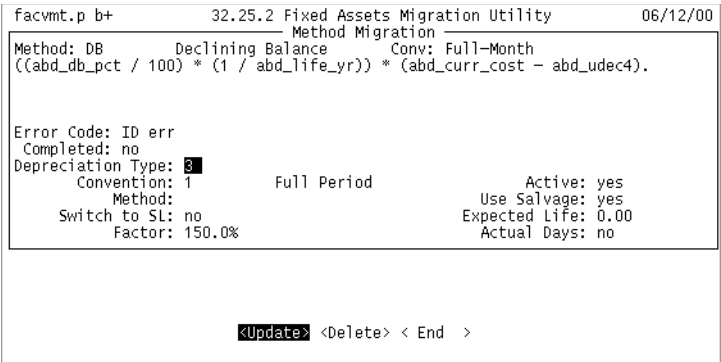
Converting Methods

Use Method Migration to convert legacy depreciation methods to the depreciation methods supplied with the enhanced Fixed Assets module.

To convert legacy methods, use the following figure and instructions.

For details, see *User Guide Volume 4B: Financials*.

Fig. 10.4
Method Migration



- 1 Use the arrow keys to scroll through the legacy methods. The legacy method, description, convention, and equation display.
- 2 If this method is not used by an asset, choose the Delete button to delete it. The system checks that the method is not used, then prompts for confirmation to delete the method.
- 3 To convert the legacy method, choose the Update button.

- 4 In the Depreciation Type field, select the enhanced depreciation method that most closely resembles the legacy method. The following depreciation methods are supplied with the enhanced module:
 - 1: Straight Line
 - 2: Units of Production
 - 3: Declining Balance
 - 4: Sum of the Years' Digits
 - 5: Flat Rate
 - 6: Custom Table
- 5 To modify the standard depreciation methods supplied with the enhanced Fixed Assets module, complete the following fields:
 - Convention • Active
 - Method ID • Use Salvage
 - Switch to SL • Expected Life
 - Factor • Actual Days

▶ For details, see
User Guide
Volume 4B:
Financials.

Note If you are using the custom-table depreciation method, you must define a custom table in Method Maintenance (32.1.1) before mapping it to a legacy method. Use the same method ID from Method Maintenance for the method in Method Migration.

- 6 If an error exists with the new method, the Error Code field displays one of the following tables:
 - ID err: An error exists with the new method ID. For example, the method ID is missing or there is a duplicate method ID.
 - type err: An error exists with the new method description. For example, the method is not supported by the enhanced module.
 - conv err: An error exists with the new convention. For example, the convention is missing or the convention is not compatible with the method.

- table err: An error exist with the new table method. The following are examples of possible errors:

The corresponding method defined in Method Maintenance is not a custom-table method.

There is a discrepancy with the estimated life.

Table detail is not defined in Method Maintenance.

- life err: An error exists with the new life. For example, the method is a custom table and the new life is zero.

7 After you correct any errors, the Completed field is updated to Yes for the converted method.

8 Repeat steps 1 through 7 for each of the legacy methods.

Converting Books

Use Book Migration to convert legacy books to books used in the enhanced Fixed Assets module. To convert legacy books, use the following figure and instructions. In the legacy system, asset cost is associated with depreciation books; therefore, if an asset contains multiple books, the asset cost comes from the posting book.

Fig. 10.5
Book Migration

facvmt.p b+ 32.25.2 Fixed Assets Migration Utility 06/12/00	
Book Migration	
Book: POST	GL BOOK, ENTITY 1000
Entity: 1000	Post: yes
Periods Per Year: 012	
Error Code: Duplicate ID	
Completed: no	
Book: POST	GL BOOK, ENTITY 1000
Sort: 1	Post: yes
Calendar:	
Total Acc Depreciation: 9,761.93	
Total Basis: 16,707.00	
Update <Delete> < End >	

- 1 Use the arrow keys to scroll through the legacy books. The legacy book ID, description, entity, and post field display.
- 2 If this book is not used by an asset, choose the Delete button to delete it. The system checks that the book is not used, then prompts for confirmation to delete the book.

Note Any legacy asset books that use a depreciation type of none are not created in the new fixed asset system.

- 3 To convert the legacy book, choose the Update button.
- 4 Complete the following fields:
 - Book
 - Post
 - Description
 - Calendar
 - Sort Code

Note You can have only one posting book in the system. If the book was not a posting book in the legacy system, you cannot change it to a posting book for the new system.

- 5 Total Accumulated Depreciation and Total Basis are automatically calculated. Total Accumulated Depreciation displays the total accumulated depreciation for the legacy book. Total Basis displays the total basis for all of the fixed assets use the legacy book.
- 6 If there are duplicate book IDs, the Error Code field displays Duplicate ID.

- 7 After you correct any errors, the Completed field is updated to Yes for the converted book.
- 8 Repeat steps 1 through 7 for each of the legacy books.

Converting Locations

Use Location Migration to convert legacy locations to locations used in the enhanced Fixed Assets module. To convert legacy locations, use the following figure and instructions.

facvmt.p b+ 32.25.2 Fixed Assets Migration Utility 06/12/00

Location Migration

Location Code: 22 ADMINISTRATION Cost Center:
 Sub-Account: Error Code: ID err Completed: no

Location: 22 ADMINISTRATION
 Entity: Sub-Account: Cost Center:
 Address:

City: State: Post:
 County: Country:
 Telephone: Fax/Telex:

< Add > <Update> <Delete> < End >

Fig. 10.6
Location Migration

- 1 Use the arrow keys to scroll through the legacy locations. The legacy location code, description, sub-account, and cost center display. For each legacy location, the location ID is automatically filled in with the legacy location ID.
- 2 If this location is not used by an asset, choose the Delete button to delete it. The system checks that the location is not used, then prompts for confirmation to delete the location.
- 3 To convert the legacy location, choose the Update button.
- 4 Complete the following fields:
 - Location ID
 - Sub-Account
 - Description
 - Cost Center
 - Entity
 - Address and Telephone information

- 5 If an error exists with the new location, the Error Code field displays one of the following codes:
 - ID err: An error exists with the new ID. For example, the location ID is used by another module and you must set up a new ID.
 - en err: An error exists with the new entity. For example, the entity code is not defined in Entity Code Maintenance (25.3.1).
 - sub err: An error exists with the new sub-account. For example, the sub-account is not defined in Sub-Account Code Maintenance (25.3.17).
 - cc err: An error exists with the new cost center. For example, the cost center is not defined in Cost Center Code Maintenance (25.3.20).
- 6 After you correct any errors, the Completed field is updated to Yes for the converted location.
- 7 Repeat steps 1 through 6 for each of the legacy locations.

Converting Classes

Use Class Migration to convert legacy classes to classes used in the enhanced Fixed Assets module and set up default GL accounts. To convert legacy classes, use the following figure and instructions.

Fig. 10.7
Class Migration

facvmt.p b+ 32.25.2 Fixed Assets Migration Utility 06/12/00	
Class Migration	
Class:	ATO AUTOMOBILES
Asset Account:	
Expense Account:	
Accumulated Expense Account:	
Error Code:	Acct err
Completed:	no
Class:	ATO
Description:	AUTOMOBILES
Depreciate Assets:	yes
< Add > <Update> < Acct > <Delete> < End >	

- 1 Use the arrow keys to scroll through the legacy classes. The legacy class ID, description, asset account, accumulated depreciation account, and depreciation expense account display. For each legacy class, the class ID and description are automatically filled in with the legacy data.
- 2 If this class is not used by an asset, choose the Delete button to delete it. The system checks that the class is not used, then prompts for confirmation to delete the class.
- 3 To convert the legacy class, choose Update and enter whether this fixed-asset class is depreciated.
- 4 Choose the Acct button to modify the default GL accounts for the fixed-asset class.

Fig. 10.8
Class Account
Default Migration

facvmt.p b+ 32.25.2 Fixed Assets Migration Utility 06/12/00		
Class Migration		
Class: ATO AUTOMOBILES		
Class Account Default Migration		
Type	Account	Description
Asset Account	1800	Fixed Assets
Accumulated Expense	1810	Less:Depreciation
Periodic Expense	5300	Depreciation Expense
Construction in Process		
Gain on Disposal	7800	Gain/Loss on Disposal
Loss on Disposal	7800	Gain/Loss on Disposal
Asset Suspense		
<Update> < End >		

- 5 For each class, you must specify a GL account for the following accounts:
 - Asset Account
 - Accumulated Expense
 - Periodic Expense
 - Construction In Process
 - Gain on Disposal
 - Loss on Disposal
 - Asset Suspense
- 6 If any fixed-asset accounts are not defined, the Error Code field displays acct err.
- 7 After you correct any errors, the Completed field is updated to Yes for the converted class.
- 8 Repeat steps 1 through 7 for each of the legacy classes.

Migration Reporting

Use Fixed Assets Migration Report (32.25.3) to generate a report that provides a summary of the migrated fixed-asset data. The report shows the migrated data from the legacy system and the newly mapped data for the new system.

You can choose to include books, methods, locations, classes, and exceptions in the report.

Fig. 10.9
Fixed Assets
Migration Report
(32.25.3)

facvrp.p b+	32.25.3 Fixed Assets Migration Report	06/12/00
Input File Name: <u>/qad/mfapro/eB/conv/dummdir/fa_dump.dat</u>		
Print Methods: <u>Yes</u>		
Print Books: <u>Yes</u>		
Print Locations: <u>Yes</u>		
Print Classes: <u>Yes</u>		
Print Exceptions: <u>Yes</u>		
		Output: Batch ID:

- 1 In the Print Books field, enter Yes to include migrated book data from the legacy system and the newly mapped book data in the report. Enter No to exclude book data.
- 2 In the Print Methods field, enter Yes to include migrated method data from the legacy system and the newly mapped method data in the report. Enter No to exclude method data.

- 3 In the Print Locations field, enter Yes to include migrated location data from the legacy system and the newly mapped location data in the report. Enter No to exclude location data.
- 4 In the Print Classes field, enter Yes to include migrated class data from the legacy system and the newly mapped class data in the report. Enter No to exclude class data.
- 5 In the Print Exceptions field, enter Yes to include exceptions for your data. Enter no to exclude the exceptions.

Resolving Conversion Errors

This chapter contains reference information to help you resolve some common conversion issues.

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Duplicate Record Errors **196**

Incompatible Progress Source Data **198**

Duplicate Unique Key Errors **204**

Oracle Describe Command Fails **212**

Progress Century Parameter **212**

Overview

Use the following sections to help resolve some of the errors you may encounter during an MFG/PRO conversion.

This section contains the following entries:

- “Duplicate Record Errors” on page 196
- “Incompatible Progress Source Data” on page 198
- “Duplicate Unique Key Errors” on page 204
- “Oracle Describe Command Fails” on page 212
- “Progress Century Parameter” on page 212

Duplicate Record Errors

During MFG/PRO data loads, MFG/UTIL sets the acceptable error percentage in the Progress data load utility to 100. When an error occurs, an error file (extension .e) is generated with the same name as the data file where the error occurred. The error file is stored in the directory from which the data is being loaded. After the error is recorded, the load continues with the next data file. This load method lets you complete a load and then resolve errors in specific data files.

Because a data file can contain multiple records, it can be difficult to locate the exact record that caused the load error. You can use the Progress Reconstruct Bad Load Records utility to isolate the records in a data file that are causing errors.

Solution

Use the following instructions to:

- Run the Reconstruct Bad Load Records utility and identify the individual records that are creating errors.
- For each record identified, modify either the record itself or the database table into which it will be loaded.
- Load the records into the database.

These steps use the variables in Table 11.1.

If you see...	It refers to...
<i>SchemaHolder</i>	The target version schema holder
<i>\$DLC</i>	The directory where the Progress software is installed

Table 11.1
Duplicate Record
Variables

- 1 Use the following command to launch the Progress Data Dictionary and connect to your target version schema holder:
`$DLC/bin/pro SchemaHolder -p dict.p`
- 2 From the Data Dictionary, select the Admin menu. Then select Load Data and Definitions and choose Reconstruct Bad Load Records.
- 3 For each of the data files where errors occurred, use the following graphic and table to complete Reconstruct Bad Load Records.

Field	Enter
Original Data File	The path and name of the data file in which the error occurred; for example, <code>mnt_det.d</code> .
Error File	The path and name of the corresponding error file; for example, <code>mnt_det.e</code> .
Output Data File	A directory location and name for the Reconstruct Bad Load Records utility's output file. This file contains only those records from the original data file that caused errors; for example, <code>error.d</code> .

- 4 For each record in `error.d`, you must determine if the record is a duplicate or if it needs to be added to the database table.
 - If the record is a duplicate of a record already in the database table, remove the record from `error.d`.
 - If the record needs to be added to the table, then you must change the values in the fields that make up the unique index so that they are in fact unique. You can change either the records in `error.d` using an editor or the rows in the table using `assign (4GL)` statements. You must determine for each record which approach is correct for your circumstance—changing the table’s contents or changing the file.
- 5 Once all the duplicates have been resolved by making their key values unique or by removing them from `error.d`, use the Progress Data Dictionary to load `error.d` into the appropriate database.
- 6 Repeat steps 2 through 5 for each of the `.e` files created during the data load process.

Incompatible Progress Source Data

When loading source version data dumped from Progress databases, you may encounter records that exceed the length of the corresponding column in the target version Oracle database.

Example Figure 11.1 indicates that errors occurred when the records in the `bt_mstr.d` data file were loaded. These errors are recorded in the `bt_mstr.e` error file.

Database Schema AAdmin DataServer Utilities PRO/SQL Tools

Loading Data. Press CTRL-C to terminate the load process.				
Table	Load file	Records Loaded	Total Errors	Expected Records
bt_mstr	dotd/mfg/bt_mstr.d	5	2	7

Database: cnv91 (ORACLE) Table: bt_mstr
 Load of database contents completed.
 Errors listed in .e files placed into same directory as .d files
 Press space bar to continue.

Fig. 11.1
Data Load Error for
bt_mstr

When `bt_mstr.e` is viewed, it contains the following error messages:

```
>> ERROR READING LINE #6 (Offset=128): Character field too long;
table: CNV91.BT_MSTR column: BT_USER1. (2728)
>> ERROR READING LINE #6 (Offset=128): A column in this row being
inserted or updated is too large (4212)
>> ERROR READING LINE #7 (Offset=243): Character field too long;
table: CNV91.BT_MSTR column: U##BT_DESC. (2728)
>> ERROR READING LINE #7 (Offset=243): A column in this row being
inserted or updated is too large (4212)
>> ERROR! Trailer indicated 7 records, but 5 records were loaded.
```

Fig. 11.2
Error Messages for
bt_mstr

In this example, the data for the `BT_USER1` and `U##BT_DESC` fields in some of the records of the `bt_mstr` data file are too long for the Oracle column into which they are being loaded.

Solution

Use the following instructions to:

- Run the Reconstruct Bad Load Records utility and identify the individual records that are creating field length errors.
- For each record identified, modify either the record itself or the database column into which it will be loaded.
- Load the modified records into the database.

Run the Reconstruct Bad Load Records Utility

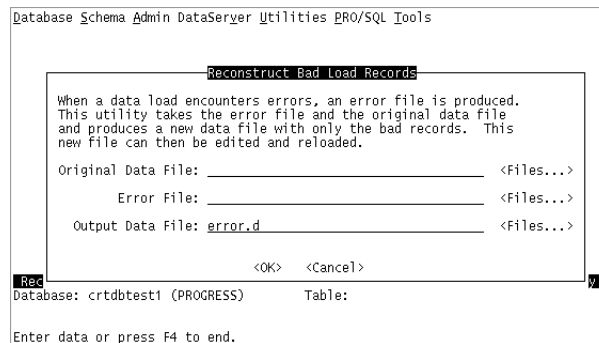
These steps use the variables in Table 11.2.

Table 11.2
Duplicate Record
Variables

If you see...	It refers to...
<i>SchemaHolder</i>	The target version schema holder
<i>\$DLC</i>	The directory in which the PROGRESS software is installed

- 1 Use the following command to launch the Progress Data Dictionary and connect to your target version schema holder.

`$DLC/bin/pro SchemaHolder -p dict.p`
- 2 From the Data Dictionary, select the Admin menu. Then select Load Data and Definitions and choose Reconstruct Bad Load Records.
- 3 For each of the data files where errors occurred, use the following graphic and table to complete Reconstruct Bad Load Records.



Database Schema Admin DataServer Utilities PRO/SQL Tools

Reconstruct Bad Load Records

When a data load encounters errors, an error file is produced. This utility takes the error file and the original data file and produces a new data file with only the bad records. This new file can then be edited and reloaded.

Original Data File: _____ <Files...>

Error File: _____ <Files...>

Output Data File: error.d _____ <Files...>

<OK> <Cancel>

Database: crtddbtest1 (PROGRESS) Table:

Enter data or press F4 to end.

Field	Enter
Original Data File	The path and name of the data file in which the error occurred; for example, <code>bt_mstr.d</code> .
Error File	The path and name of the corresponding error file; for example, <code>bt_mstr.e</code> .
Output Data File	A directory location and name for the Reconstruct Bad Load Records utility's output file. This file contains only those records from the original data file that caused errors; for example, <code>error.d</code> .

- 4 Open the Reconstruct Bad Load Records output file (`error.d`) in a text editor. When more than one error message for a record appears in the error file (`bt_mstr.e`), that record appears multiple times in `error.d`. Remove the duplicate record entries from `error.d`.

Modify the Identified Records

Use the examples in Figure 11.3 and the following instructions to help you correct the records in `error.d`:

```
"X1" "Example one" "
"X2" "Example two - This field has much more data in PROGRESS than its counterpart in ORACLE." "" ""
```

Fig. 11.3
Example `error.d`
File for `bt_mstr`

- 1 Use the `describe Table_Name` command to view a description of the table into which you want to load records. The following instructions refer to the `bt_mstr` table used in previous examples.

```
describe bt_mstr
```

Figure 11.4 is the `bt_mstr` description in the Oracle database.

```
SQL> describe bt_mstr
```

Name	Null?	Type
U##BT_BASE_TYP		VARCHAR2(30)
BT_BASE_TYP		VARCHAR2(30)
U##BT_DESC		VARCHAR2(80)
BT_DESC		VARCHAR2(80)
BT_USER1		VARCHAR2(80)
BT_USER2		VARCHAR2(80)
BT_QADC01		VARCHAR2(80)
PROGRESS_RECID		NUMBER

Fig. 11.4
Oracle Table
Description for
`bt_mstr`

Note that Progress adds shadow columns in Oracle for some of its character fields. These columns have the same name as the field preceded by `U##`. The column and its shadow always appear in pairs with identical data types. Two examples of this are:

- `U##BT_BASE_TYP` and `BT_BASE_TYP`
 - `U##BT_DESC` and `BT_DESC`
- 2 Compare the Oracle table description and records in the `error.d` file to determine how the Progress fields in the records correspond to the Oracle columns.

For example, Table 11.3 compares the Oracle table description in Figure 11.4 with the first record of the `error.d` file in Figure 11.3.

Table 11.3
Progress to Oracle
Comparison

Record Data	Oracle Column	Progress Field
X1	BT_BASE_TYP and U##BT_BASE_TYP	BT_BASE_TYP
Example one	BT_DESC and U##BT_DESC	BT_DESC
Blanks	BT_USER1	BT_USER1
Empty field	BT_USER2	BT_USER2
Empty field	BT_QADCO1	BT_QADCO1
	PROGRESS_RECID	Progress creates this entry as the last column in every Oracle table. This column is not part of the data record.

- 3** Review the messages in the error file created during the original load to determine the columns where errors occurred. Then identify the data in those fields.

For example, the first message in Figure 11.2 indicates that an error occurred loading data into the BT_USER1 column. From Table 11.3, this is the third Progress field in the bt_mstr records. To identify the data that caused this error, examine the error.d file generated by the Reconstruct Bad Load Records utility (Figure 11.3). The data for the BT_USER1 field is a long string of blank spaces.

Figure 11.5 illustrates this.

Fig. 11.5
BT_USER1 Data

"X2" "Example one" "



BT_USER1 Data

Similarly, the third message in Figure 11.2 indicates that an error occurred loading the data for U##BT_DESC. Using Table 11.3, you can see that this is a shadow column for the second Progress field in the bt_mstr records. To identify the data that caused this error, examine the error.d file generated by the Reconstruct Bad Load Records utility (Figure 11.3). The data for this field is:

Example two - This field has much more data in Progress than its counterpart in Oracle.

Figure 11.6 illustrates this.

"X2" "Example two - This field has much more data in PROGRESS than its counterpart in ORACLE." "" ""

BT_DESC Data

Fig. 11.6
BT_DESC Data

- 4 In some cases, records can be shortened or eliminated. For example, in Figure 11.5, the data for BT_USER1 exceeds the 80 character column size. However, the data is not meaningful and can be reduced to a single blank (" ") or eliminated with an empty field ("").
- 5 In some cases, records contain data that cannot be shortened or eliminated. For example, in Figure 11.6, the data for BT_DESC exceeds the 80 character column size for U##BT_DESC. Additionally, the data is meaningful and must be retained.

For these records, you can increase the size of the Oracle column or columns into which the data will be loaded.

The following instructions use the preceding examples to illustrate how to increase the size of an Oracle column:

- a Determine if the column where the error occurred has a shadow column. If so, you must increase the size of both columns.
For example, Figure 11.2 contains an error message for U##BT_DESC. This is the shadow column for BT_DESC. Therefore, increase the size of both BT_DESC and U##BT_DESC.
- b Based on the data in the record, calculate the size of the column or columns.
The data in Figure 11.6 is 87 characters; therefore, you must increase the column size for both BT_DESC and U##BT_DESC to at least 87 in order to load this data.
- c Launch SQL*Plus. Connect as the owner of the database tables.
- d Use the `alter` command to change one or more column widths.
In the following command, the size of both the BT_DESC and U##BT_DESC columns is increased to 87:

```
alter table bt_mstr modify (u##bt_desc varchar2(87),
    bt_desc varchar2(87));
```

Load the Records into the Database

Once you have either modified the record or the Oracle database, use MFG/UTIL to load the records in the `error.d` file into the target version Oracle database. For instructions on loading data through MFG/UTIL, see “Loading Production Data” on page 78.

Duplicate Unique Key Errors

Occasionally, errors occur when a unique index conflicts with records that have duplicate keys. It is possible to get these errors when converting an Oracle source version database, but they are much more prevalent when converting source version Progress databases to Oracle. This is because Progress and Oracle databases treat null values differently.

During a conversion, there are two different scenarios where duplicate key errors occur:

- When data is loaded into an Oracle database before the indices are built. In this case, duplicate unique keys in the data cause the index build statements to fail when the indices are built.
- When data is loaded into an Oracle database after the indices are built. In this case, duplicate unique keys cause the data load to fail.

Solution

Use the following instructions to resolve duplicate unique key errors that occur before or after the Oracle indices are built.

Scenario 1

The first way that the duplicate unique key error can occur is when the data has been loaded successfully into tables without indices. This occurs during the conversion when the source version production data is loaded into the target version Oracle database before the Oracle indices are built.

When the indices are created and duplicate keys exist in the data, the create unique index statement fails with the following Oracle message:

```
ORA-01452: cannot CREATE UNIQUE INDEX; duplicate keys found.
```

- 1 Examine the log file for the create unique index statements that failed to determine the columns that make up the unique key. Figure 11.7 illustrates this.

```
CREATE UNIQUE INDEX cal_det##cal_det on cal_det (U##cal_site,  
U##cal_wkctr, U##cal_mch, U##cal_ref, cal_start)
```

Fig. 11.7
Create Index Log
File

- 2 Use the describe *Table_Name* command to view a description of the table where the duplicate keys occurred:

```
describe cal_det
```

Figure 11.8 describes the `cal_det` table in the Oracle database.

SQL> describe cal_det		
Name	Null?	Type
U##CAL_REF		VARCHAR2(80)
CAL_REF		VARCHAR2(80)
U##CAL_WKCTR		VARCHAR2(80)
CAL_WKCTR		VARCHAR2(80)
U##CAL_MCH		VARCHAR2(80)
CAL_MCH		VARCHAR2(80)
CAL_START		DATE
CAL_END		DATE
CAL_HOURS		NUMBER(38,10)
CAL_USER1		VARCHAR2(80)
CAL_USER2		VARCHAR2(80)
CAL_SHIFT1		NUMBER(38,10)
CAL_SHIFT2		NUMBER(38,10)
CAL_SHIFT3		NUMBER(38,10)
CAL_SHIFT4		NUMBER(38,10)
U##CAL_SITE		VARCHAR2(80)
CAL_SITE		VARCHAR2(80)
CAL_QADC01		VARCHAR2(80)
PROGRESS_RECID		NUMBER

Fig. 11.8
Oracle Table
Description for
`cal_det`

Note that the four character fields in the create index statement—`U##cal_det`, `U##cal_wkctr`, `U##cal_mch`, and `U##cal_ref`—have the same type, `VARCHAR(80)`.

- 3 Launch SQL*Plus and connect as the owner of the database tables.
- 4 Use the log file to create a SQL statement that queries for duplicate keys in the table. These are indicated by the following syntax:

```
having count(*) > 1
```

If they exist, use shadow columns (columns prefixed by `u##`) in your SQL query. These columns are always used in the Oracle indexes.

The example in Figure 11.9 is the SQL query statement and output for duplicate keys in `cal_det`.

Fig. 11.9
Duplicate Key
Query for
`cal_det`

```
SQL> set linesize 120
SQL>
SQL> set null ?
SQL>
SQL> column u##cal_site format a20
SQL> column u##cal_wkctr format a20
SQL> column u##cal_mch format a20
SQL> column u##cal_ref format a20
SQL>
SQL> select U##cal_site, U##cal_wkctr, U##cal_mch, U##cal_ref, cal_start, count
2   from cal_det
3   group by U##cal_site, U##cal_wkctr, U##cal_mch, U##cal_ref, cal_start
4   having count(*)>1;
```

U##CAL_SITE	U##CAL_WKCTR	U##CAL_MCH	U##CAL_REF	CAL_START	CAL_START	COUNT(*)
7001000						2

While the `linesize` and `format` values will vary in individual queries, you should always include `set null ?` because null values are the most common cause of duplicate key errors.

Figure 11.9 shows one set of duplicate keys and this set contains two rows. The key for that set has a value of 7001000 for `u##cal_site` and blanks for the other three character columns. The issue is that the date field `cal_start` contains nulls in both records. Progress databases allow multiple null records in key fields, but Oracle databases do not.

- 5 Determine if the data in the records is different by displaying the data in the other fields in the record. Use the index key information from step 4 to isolate the records.

In Figure 11.10, the duplicate records are isolated using the information from Figure 11.9. The other fields in these records are then examined to determine if the records are indeed unique.

```
SQL> select cal_end, cal_hours, cal_shift1, cal_shift2, cal_shift3, cal_shift4
  2   from cal_det
  3   where u##cal_site = '7001000'
  4     and u##cal_wkctr = ''
  5     and u##cal_mch = ''
  6     and u##cal_ref = ''
  7     and cal_start is null;
```

Fig. 11.10
Additional Field
Query for
cal_det

CAL_END	CAL_HOURS	CAL_SHIFT1	CAL_SHIFT2	CAL_SHIFT3	CAL_SHIFT4
?	0	0	0	0	0
?	0	0	8	0	0

- 6 If the records are not unique—all of the data in each field is the same—delete both records using their key values. Copy one of the records from the `cal_det.d` data file into a temporary data file (`temp.d`). Then load `temp.d` into the database.
- 7 If the records are unique—there is different data in some or all of the fields—change the duplicate key values in the records. For example, in Figure 11.10, the data in `cal_shift2` is different for each record; therefore, the duplicate keys for these records must be changed.

How you change the duplicate keys depends on the meaning of the data in the records. In Figure 11.11, the `cal_start` date for the record where `cal_shift2` equals 8 is changed.

```
SQL>update cal_det set
  2   cal_start='21-JAN-2000'
  3   where u##cal_site = '7001000'
  4     and u##cal_wkctr = ''
  5     and u##cal_mch = ''
  6     and u##cal_ref = ''
  7     and cal_shift2 = 8;

1 row updated.
```

Fig. 11.11
Duplicate Key
Change

Scenario 2

Duplicate unique key errors can occur when data is loaded into the target version Oracle database after the indexes are built. This occurs during conversion when source version support data—for example, `gui`, `cfg`, or `GL Report Writer` data—is loaded into the target version Oracle database.

For example, Figure 11.12 indicates that errors occurred when the records in the `cal_det.d` data file were loaded. These errors are recorded in the `cal_det.e` error file.

Fig. 11.12
Data Load Error for
`cal_det`

Database Schema Admin DataServer Utilities PRO/SQL Tools

Loading Data.	Press CTRL-C to terminate the load process.	Records Loaded	Total Errors	Expected Records
Table	Load file			
cal_det	dotd/demo/cal_det.d	5	1	6

Database: cnv91 (ORACLE) Table: cal_det
 Load of database contents completed.
 Errors listed in .e files placed into same directory as .d files
 Press space bar to continue.

When the `cal_det.e` is viewed, it contains the following error message:

Fig. 11.13
Error Message for
`cal_det`

```
>> ERROR READING LINE #6 (Offset=265): unique constraint
(CNV91.CAL_DET##CAL_DET) violated
```

- 1 Examine the log file for the create unique index statements that failed to determine the columns that make up the unique key. Figure 11.14 illustrates this.

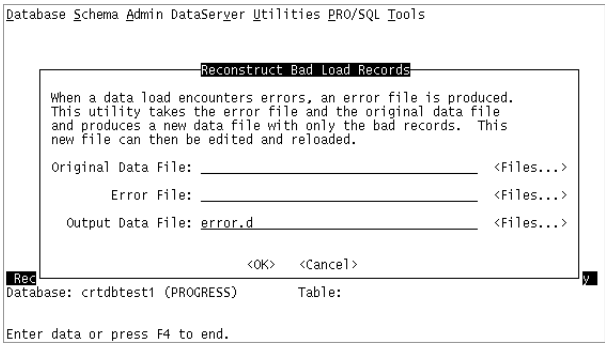
Fig. 11.14
Create Index Log
File

```
CREATE UNIQUE INDEX cal_det##cal_det on cal_det (U##cal_site,
U##cal_wkctr, U##cal_mch, U##cal_ref, cal_start)
```

- 2 To identify the records in the data file that caused duplicate key errors, run the Progress Reconstruct Bad Load Records utility using the following instructions:
 - a Launch the Progress Data Dictionary and connect to your target version schema holder:


```
$DLC\bin\pro SchemaHolder -p dict.p
```
 - b From the Data Dictionary main screen, select the Admin menu. Then select Load Data and Definitions and choose Reconstruct Bad Load Records.

- c
- Use the following graphic and table to complete the Reconstruct Bad Load Records screen.



Field	Enter
Original Data File	The path and name of the data file in which the error occurred; for example, cal_det.d.
Error File	The path and name of the corresponding error file; for example, cal_det.e.
Output Data File	A directory location and name for the Reconstruct Bad Load Records utility's output file. This file contains only those records from the original data file that caused errors; for example, error.d.

Figure 11.15 is an example Reconstruct Bad Load Records output file (error.d) for cal_det.

```
??0 0800"7001000"
```

Fig. 11.15
Example error.d
File for cal_det

- 3
- Use the `describe Table_Name` command to view a description of the table where the duplicate keys occurred.

```
describe cal_det
```

Figure 11.16 describes the cal_det table in the Oracle database.

Fig. 11.16
Oracle Table
Description for
cal_det

```
SQL> describe cal_det
```

Name	Null?	Type
U##CAL_REF		VARCHAR2(80)
CAL_REF		VARCHAR2(80)
U##CAL_WKCTR		VARCHAR2(80)
CAL_WKCTR		VARCHAR2(80)
U##CAL_MCH		VARCHAR2(80)
CAL_MCH		VARCHAR2(80)
CAL_START		DATE
CAL_END		DATE
CAL_HOURS		NUMBER(38,10)
CAL_USER1		VARCHAR2(80)
CAL_USER2		VARCHAR2(80)
CAL_SHIFT1		NUMBER(38,10)
CAL_SHIFT2		NUMBER(38,10)
CAL_SHIFT3		NUMBER(38,10)
CAL_SHIFT4		NUMBER(38,10)
U##CAL_SITE		VARCHAR2(80)
CAL_SITE		VARCHAR2(80)
CAL_QADC01		VARCHAR2(80)
PROGRESS_RECID		NUMBER

- 4 Using the table description and comparing `error.d` (Figure 11.15) with the create index statement (Figure 11.14), determine the duplicate unique key data.

Unique Key Column	Data
U##cal_site	7001000
U##cal_wkctr	No data
U##cal_mch	No data
U##cal_ref	No data
cal_start	? (null)

- 5 Compare the data that exists in the Oracle database with the data in the `error.d` file to determine if the records are indeed unique.

In Figure 11.17, the data already in the Oracle database for the other fields in `cal_det` is displayed. This output is compared with the same fields in Figure 11.15 to determine if the records are unique.

Fig. 11.17
Existing Data
Query for
cal_det

```
SQL> set null ?

SQL>

SQL> select cal_end, cal_hours, cal_shift1, cal_shift2, cal_shift3, cal_shift4
2  from cal_det
3  where u##cal_site = '7001000'
4    and u##cal_wkctr = ''
5    and u##cal_mch = ''
6    and u##cal_ref = ''
7    and cal_start is null;
```

CAL_END	CAL_HOURS	CAL_SHIFT1	CAL_SHIFT2	CAL_SHIFT3	CAL_SHIFT4
?	0	0	0	0	0

- 6 If the records are not unique—all of the data in each field is the same—you can ignore the duplicate records in `error.d`.
- 7 If the records are unique—there is different data in some or all of the fields—change the duplicate key values in the records. In the `cal_det` example, the data in `cal_shift2` is different in each record; therefore, change the duplicate keys for these records.

To change the duplicate key data for these records.

- You can modify the data in one or more of the unique key fields in the records listed in the `error.d` file. To modify the records in `error.d`, use the instructions in step 8.
 - You can modify the data in one or more of the unique key columns in the Oracle database. To modify columns in the Oracle database, use the instructions in step 9.
- 8 Use the following instructions to modify the `error.d` records:
 - a Open the `error.d` file in a text editor.
 - b Modify the data in the unique key fields.

For example, change the `cal_start` field in Figure 11.15 to 01/21/2000. Figure 11.18 illustrates this.

```
*** *** 01/21/2000 ? 0 *** 0 8 0 0 "7001000" ***
```

Fig. 11.18
Modified
`error.d` Record

- 9 To modify columns in the Oracle database, use an SQL command to update the column data for the unique keys you want to change.

In Figure 11.19, the `cal_start` date for the record where `cal_shift2` equals 8 is changed.

```
SQL> update cal_det set
2 cal_start = '21-JAN-2000'
3 where u##cal_site = '7001000'
4 and u##cal_wkctr = ''
5 and u##cal_mch = ''
6 and u##cal_ref = ''
7 and cal_shift2 = 8;

1 row updated.
```

Fig. 11.19
Duplicate Key
Change

Oracle Describe Command Fails

The Oracle `describe Table_Name` command fails to execute.

Solution

You may need to connect as `sys/. .` and run the following command:

```
$ORACLE_HOME/rdbms/admin/catproc.sql
```

Progress Century Parameter

If the Progress century startup parameter (`-yy`) does not match in the source version data files and the target version database, errors can occur during the data load.

In this case, the message in Figure 11.20 displays in the error files (extension `.e`) created during the data load.

Fig. 11.20
Century Parameter
Error Message

```
>> ERROR! -d <mdy> or -yy <n> settings of dump were mdy-1920 **but
current settings are mdy-1950. May cause load errors.
```

One indication that this is happening is that every table loaded shows exactly one error, even when there are no records being loaded. In this case, you can stop the load by pressing Ctrl+C. Figure 11.21 is an example of this situation.

Fig. 11.21
Century Parameter
Error Screen

Database Schema Admin DataServer Utilities PRO/SQL Tools

Loading Data. Press CTRL-C to terminate the load process.				
Table	Load file	Records Loaded	Total Errors	Expected Records
abd_det	dotd/mfg/abd_det.d	0	1	0
absc_det	dotd/mfg/absc_det.d	0	1	0
absr_det	dotd/m Information	0	1	0
abss_det	dotd/m Load terminated.	0	1	0
abs_mstr	dotd/m	0	1	0
accd_det	dotd/m	0	1	0
acd_det	dotd/m	0	1	0
acm_mstr	dotd/mfg/acm_mstr.d	0	1	0
acod_mstr	dotd/mfg/acodmstr.d	Loading		0

Database: cnv91 (ORACLE) Table:

Check the error files in the dump directory. If they all contain the error message in Figure 11.20, delete the records that were loaded and restart the load—making sure to specify `-yy 1920`.

Solution

Use the following instructions to delete the records that were loaded incorrectly.

- 1 Create an SQL (extension `.sql`) file containing the following command for each table that contains erroneous records. In this command, *Table_Name* refers to the database table from which you want to remove records.

```
TRUNCATE TABLE Table_Name
DROP SEQUENCE Table_Name_SEQ
CREATE SEQUENCE Table_Name_SEQ START WITH 1 INCREMENT BY 1 CACHE
75;
```

- 2 Launch SQL*Plus and connect as the owner of the database tables.
- 3 Run the `.sql` file you created in step 1.

If records were loaded into a large number of tables before you stopped the load process and you want to remove the records from all of the tables and sequences in the database, use the following instructions.

- 1 Create an SQL (extension `.sql`) file containing the following commands:

```
set heading off
set pagesize 0
set linesize 100

spool truncall.sql

select 'TRUNCATE TABLE ' || table_name || ';'
from dba_tables
where owner = user;

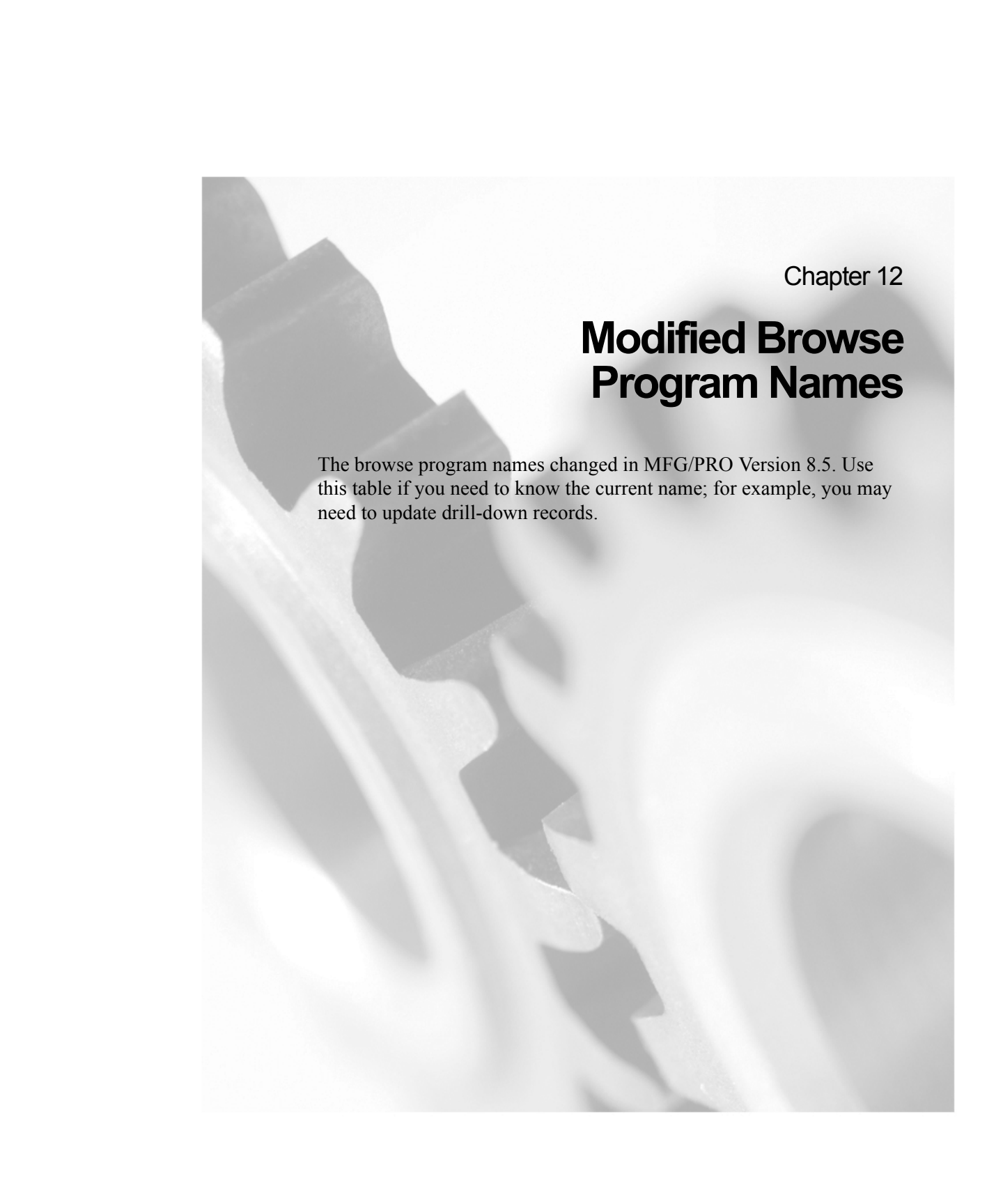
select 'DROP SEQUENCE ' || sequence_name || ';'
from dba_sequences
where sequence_owner = user
and sequence_name like '%SEQ';

select 'CREATE SEQUENCE ' || sequence_name || ' START WITH 1
INCREMENT BY 1 CACHE 75;'
from dba_sequences
where sequence_owner = user
and sequence_name like '%SEQ';

spool off
```

- 2** Launch SQL*Plus and connect as the owner of the database tables.
- 3** Run the `.sql` file you created in step 1.
- 4** Open the `truncall.sql` file created by this process in a text editor:
`vi truncall.sql`
- 5** Remove any line that does not begin with the TRUNCATE, DROP, or CREATE statements.
- 6** Launch SQL*Plus and connect as the owner of the database tables.
- 7** Run `truncall.sql`.

Once you have removed all of the erroneous records from the database, dump your source version data, making sure to specify the `-yy 1920` parameter. Then reload your source version data.

The background of the page is a grayscale photograph of several interlocking mechanical gears. The gears are of different sizes and are positioned in a way that creates a sense of depth and mechanical complexity. The lighting is soft, highlighting the metallic texture and the sharp edges of the gear teeth.

Chapter 12

Modified Browse Program Names

The browse program names changed in MFG/PRO Version 8.5. Use this table if you need to know the current name; for example, you may need to update drill-down records.

Table 12.1
Modified Browse
Program Names

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
abs1br.p	gpbr001.p	Containers Browse
abs2br.p	gpbr002.p	Unallocated Containers
abs3br.p	gpbr003.p	Shippers Browse
abs4br.p	gpbr004.p	Shippers/Containers
acmbr.p	gpbr005.p	Average Cost Method Browse
adcnbrty.p	adbr015.p	County Code Browse
adcobr.p	gpbr007.p	Company Address Master
adcsbr.p	adbr001.p	Customer Browse
adcsbrbk.p	adbr002.p	Customer/Supplier Banks
adctbr.p	gpbr353.p	Credit Term Browse
adctbr01.p	adbr004.p	Detail Credit Terms
adcubrst.p	gpbr009.p	Address Master Customers
addkbr.p	adbr005.p	Dock Code Browse
addrbr.p	gpbr011.p	Address Master Browse
adembr.p	adbr006.p	Employee Master Browse
adeubr.p	adbr007.p	End User Addresses
adglbr.p	gpbr012.p	Cust Ship-To Addresses
adlsbr.p	adbr008.p	Address List Browse
adnmbr.p	gpbr013.p	Address Master (Name)
adpsbr.p	gpbr014.p	Address Master (PO Ship)
adrtbr.p	adbr009.p	Supplier Remit-To Browse
adshbr.p	gpbr015.p	Ship-To Address Browse
adspbr.p	adbr010.p	Salesperson Browse
adspbr01.p	adbr011.p	Salesperson Commissions
adsubrpp.p	gpbr016.p	Address Master Suppliers
adtybr.p	gpbr017.p	Address Master Browse
advdbr.p	adbr014.p	Supplier Browse
allobr.p	gpbr018.p	Allocation Master
almbr.p	gpbr019.p	Auto Lot Master Browse
altrbr02.p	gpbr020.p	Alternate Routings
altrbro1.p	gpbr021.p	Alternate Routings

Table 12.1 — *Modified Browse Program Names* — (Page 1 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
ancdbr.p	gpbr022.p	Report Writer Analysis Codes
ancdbrl.p	gpbr023.p	Analysis Codes Browse
ancdbrt.p	gpbr024.p	Report Analysis Codes Browse
ancobrde.p	gpbr025.p	Analysis Code Master Browse
ancubrst.p	gpbr026.p	Analysis Code Master Browse
anpabrtr.p	gpbr027.p	Analysis Code Master Browse
apbkbr.p	gpbr311.p	Bank Browse
appabr.p	apbr002.p	Payment Browse
aprfbr.p	gpbr028.p	AP Master Browse
apvobr.p	gpbr029.p	Open AP Vouchers
apvobr2.p	gpbr030.p	Open AP Vouchers
arbr.p	gpbr031.p	AR Browse
arblbr.p	arbr001.p	Customer Balances
arbtbr.p	gpbr032.p	Unapplied Payments
arcsbr.p	gpbr033.p	Open AR Browse
ardrbm.p	gpbr034.p	Accounts Receivable
arglbr.p	gpbr035.p	AR GL Browse
arivbr.p	gpbr036.p	Invoices For Customers
armbbr.p	gpbr037.p	Receivables Browse
armpbr.p	gpbr038.p	AR Payments Browse
arsnbr.p	gpbr039.p	Adjustment Reason Codes
asbr.p	gpbr040.p	Asset Master Browse
asnbr.p	gpbr041.p	ASN Browse
bcbr.p	gpbr042.p	Batch Control Master
bmecbr.p	bmbr001.p	ECO Browse
bmmabr.p	bmbr002.p	Product Structure Code Browse
bom1br.p	gpbr044.p	Formula Codes Browse
bom2br.p	gpbr045.p	BOM Codes
bomabr.p	gpbr046.p	Alternate BOM Browse
budcbrd.p	gpbr048.p	Budget Codes Browse
cainbr.p	gpbr050.p	Call Work Codes Browse

Table 12.1 — *Modified Browse Program Names* — (Page 2 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
cal2br.p	gpbr051.p	Open Calls Browse
casbr.p	gpbr054.p	Call Status (Type C)
catybr.p	fsbr028.p	Call Types Browse
cctrbr.p	gpbr059.p	GL Cost Center Master
cdrfbr.p	gpbr060.p	Master Comments Browse
chmbr.p	fsbr001.p	Service Call History
citybr.p	gpbr062.p	Tax Master Browse
ckbtbr.p	gpbr063.p	AP Checks – Batch Browse
ckdtbr.p	apbr003.p	Check Detail Browse
clatbr.p	clbr001.p	Work Order Attribute Browse
clbabr.p	clbr002.p	Work Order Batch Browse
clctbr.p	clbr003.p	Controlled Customer Browse
clctbrs.p	clbr004.p	Controlled Site Browse
cmcfbr.p	cmbr001.p	Cash Flow – Misc Browse
cmstbr.p	gpbr069.p	Customers – Sort Name
cmtybr.p	gpbr070.p	Customers – Type Browse
cntybr.p	gpbr071.p	Tax Master by County
codebr.p	gpbr072.p	Code Master Browse
colgbr.p	gpbr073.p	Column Group Browse
combr.p	txbr003.p	Commodity Code Browse
cpbr.p	gpbr075.p	Customer Items Browse
csbr.p	csbr001.p	Cost Set Master Browse
csabr.p	gpbr076.p	Authority Master Browse
csbabrnk.p	gpbr077.p	Bank Addresses Browse
cscbr.p	gpbr079.p	Controlled Sub Cust Mstr Browse
cscabrth.p	gpbr080.p	Controlling Authority Browse
csetbrl.p	gpbr081.p	Item Control Numbers Browse
cscubrst.p	gpbr082.p	Controlled Customer Num Browse
csplbr.p	csbr002.p	Cost Plan by Site Browse
cssabrth.p	gpbr083.p	Controlling Authority Browse
cssibr01.p	csbr003.p	Site by Cost Set Browse

Table 12.1 — *Modified Browse Program Names* — (Page 3 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
cssibr02.p	csbr004.p	Cost Set by Site Browse
cssibrte.p	gpbr084.p	Controlled Sites Browse
cssmbr.p	gpbr085.p	Cost Set Master Browse
cssnbr.p	gpbr086.p	Cost Set Master Browse
csstbr.p	gpbr087.p	Customer/Ship-To Browse
cstbr.p	gpbr088.p	Custodian Codes Browse
cstdbr.p	gpbr089.p	Address Master Browse
ctrybr1.p	adbr015.p	Country Codes Browse
cueubr.p	gpbr091.p	End User Filtered Browse
desdbr.p	adbr015.p	Port Browse
desdbrm.p	gpbr094.p	Intersite Demand Request
devtbr.p	gpbr320.p	Terms of Delivery Browse
dmbr.p	gpbr096.p	AR Drafts Browse
dm1br.p	gpbr097.p	AR Unapproved Drafts
dnftbr.p	dnbr001.p	Freight Rate Tables
dnssbr.p	dnbr002.p	Network Code Browse
dnssbr02.p	dnbr003.p	Transportation Networks
dntmbr.p	dnbr004.p	Transportation Modes
drdobr11.p	drbr001.p	Planned Intersite Reqs
drllbr.p	mgbr001.p	Drill Master Browse
drmpbr02.p	drbr002.p	Order Action Messages
drsnbr.p	gpbr098.p	Down Time Reason Codes
dsclbrst.p	gpbr099.p	Discount Tables Browse
dsddbr.p	drbr003.p	DRP Requisition Detail
dsdmbr.p	dsbr001.p	Intersite Request Browse
dsdmbr01.p	dsbr002.p	Intersite Demand Browse
dsdmbr03.p	dsbr003.p	Orders In Transit Browse
dsdobr.p	dsbr004.p	Distribution Orders
earnbr.p	gpbr100.p	Earnings Master Browse
ecm0br5.p	gpbr111.p	ECN Master Browse
ecrebrv.p	ecbr007.p	Item Revision History

Table 12.1 — *Modified Browse Program Names* — (Page 4 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
ecusbr.p	gpbr112.p	User Master Browse
elmtbr.p	gpbr114.p	Cost Element by Category
elmtbr1.p	gpbr115.p	Cost Elements by Element
empbr.p	adbr006.p	Employee Browse
engbr.p	gpbr118.p	Engineer Master Browse
engcbr.p	gpbr119.p	Engineer Code Browse
esbr.p	gpbr120.p	Escalation Browse
eshbr.p	gpbr121.p	Schedule Master Browse
essbr.p	gpbr122.p	Work Schedule Browse
eubr.p	gpbr123.p	End User Browse
eud2br.p	gpbr124.p	End Users Contacts (Name)
eudtbr.p	gpbr125.p	End User Detail Browse
exbr.p	mabr003.p	Exchange Rate Browse
fadbbr01.p	fabr012.p	Book Browse
fcfcb.p	fcbr001.p	Seasonal Build Browse
fcfrbr.p	gpbr128.p	Forecast Reference
ffcmbrg.p	gpbr129.p	Customer Regions Browse
ffgrbr.p	gpbr130.p	Item Group Browse
ffidbr.p	gpbr131.p	Forecast Master Browse
fflobrad.p	gpbr132.p	Loading Method Browse
ffmtbrhd.p	gpbr133.p	Forecast Method Browse
fftybrpe.p	gpbr134.p	Item Type Browse
fmmabr.p	fibr001.p	Formula Code Browse
fosobr.p	fobr001.p	Sales Order Bill Browse
fosqbr.p	fobr002.p	Sales Quote Bill Browse
frclbr.p	sobr001.p	Freight Class Codes
frrsbr.p	sobr002.p	Freight Terms Master
frrtbr.p	sobr003.p	Freight Terms Types
frzbr.p	gpbr135.p	Freight Zones Browse
fsbobrm1.p	gpbr136.p	Bills of Material Browse
fscqbr.p	fsbr026.p	Call Queue Browse

Table 12.1 — *Modified Browse Program Names* — (Page 5 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
fsmnbrp.p	fsbr008.p	Custom Program Insertion
fsmnbrpv.p	fsbr009.p	Custom Program Entries
fsopbrm.p	rwbr002.p	Standard Operation Browse
fspgbrh.p	fsbr012.p	Paging Browse
fsrmbra.p	fsbr014.p	RMA Browse
fssrbr.p	fsbr018.p	Service Request Browse
fssrbrs.p	fsbr019.p	Serv Req Status Codes
glacbr.p	gpbr309.p	Account Code Browse
glbgbr.p	glbr002.p	Budget Browse
glcabr.p	glbr003.p	GL Calendar Browse
glccbr.p	glbr059.p	Cost Center Code Browse
glcrbr.p	glbr006.p	Custom Report Browse
glcrbr1.p	glbr007.p	Custom Report Fmt Browse
glcrbr2.p	glbr008.p	Custom Report Accounts
glcrbrd.p	glbr009.p	Custom Report Accounts
glenbr.p	glbr322.p	Entity Code Browse
glfmbr.p	glbr324.p	Format Position Browse
glpjbr.p	glbr344.p	Project Code Browse
glsbbr.p	glbr013.p	Sub-Account Code Browse
glsbbr01.p	glbr014.p	Sub-Acct Valid Accounts
grrpbrid.p	gpbr137.p	Report Run ID's Browse
grrpbtr.p	gpbr138.p	Report Codes Browse
iclobr.p	gpbr336.p	Location Browse
iclobr01.p	icbr002.p	Inventory Master Browse
iclobr02.p	icbr003.p	Inventory Detail Browse
iclobr03.p	icbr004.p	Site Inventory Detail
icltbr.p	icbr005.p	Lot Transactions Browse
icmabr.p	icbr006.p	Mirror Table Browse
icptbr01.p	icbr007.p	Stock Available Browse
icsibr.p	gpbr348.p	Site Browse
icstbr.p	gpbr349.p	Inventory Status Codes

Table 12.1 — *Modified Browse Program Names* — (Page 6 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
icstbr01.p	icbr010.p	Inventory Status Detail
ictrbr01.p	icbr011.p	Inventory Trans Browse
ictrbr02.p	icbr012.p	Lot Transactions by Tran
iecobrm.p	gpbr139.p	Commodity Master Browse
iecobrm2.p	iebr001.p	Commodity Code Browse
ieflbrow.p	gpbr329.p	Flow Indicator Browse
iemobrt.p	gpbr337.p	Mode of Transport Browse
ienobrt.p	gpbr331.p	Nature of Transaction Browse
iepobrrt.p	gpbr319.p	Ports Browse
ierebrg.p	gpbr333.p	Region Browse
iespbr.p	gpbr334.p	Statistical Procedure Browse
ietobrd.p	gpbr320.p	Terms of Delivery Browse
ihbr.p	gpbr148.p	Invoice History Master
ihadbr.p	gpbr149.p	Invoice History Browse
ipdbr.p	gpbr150.p	Test Results Detail
isb1br.p	gpbr151.p	Installed Base Parts
isb6br.p	gpbr152.p	Installed Base Parts
isbpbrt.p	gpbr153.p	Installed Base Items
isbpbrt3.p	gpbr154.p	Installed Base Items
isbpbrt7.p	gpbr155.p	Installed Base Items
	gpbr156.p	Installed Base Parts
ladbr.p	gpbr157.p	Location Allocation Num.
langbr.p	gpbr158.p	Language Master Browse
ldbr.p	gpbr159.p	Item Lot/Serial Qty O/H
lda1br.p	gpbr160.p	Available to Allocate
lda3br.p	gpbr161.p	Available to Allocate
ldavbrl2.p	gpbr162.p	Avail to Detail Allocate
ldo3br.p	gpbr163.p	Item Location Detail O/H
ldohbr.p	gpbr164.p	Item Location Qty O/H
lnbr.p	gpbr165.p	Line Master Browse
lnddbr.p	gpbr166.p	Line Schedule Detail

Table 12.1 — *Modified Browse Program Names* — (Page 7 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
lngdbr.p	gpbr167.p	Cost Category Language
locbr.p	gpbr336.p	Location Browse
loc1br.p	gpbr169.p	Location Master
lotbr.p	gpbr170.p	Item Lot/Serial Browse
mcexbr.p	mcbr003.p	Exchange Rate Browse
mgbrbr01.p	mgbr003.p	Browse Master Browse
mgcobr.p	mgbr004.p	Generalized Codes Browse
mgfhbr.p	mgbr005.p	Window Help Browse
mgmsbr.p	mgbr006.p	Message Browse
mgrnbr.p	mgbr007.p	Reason Codes Browse
mgufbr.p	mgbr008.p	User Function Browse
mgupbr.p	mgbr009.p	Printer Default Browse
mgvubr.p	mgbr012.p	View Detail Browse
mncrbr.p	gpbr172.p	Insertion Descriptions
	mgbr013.p	Menu Substitution Browse
mnpvbr.p	gpbr173.p	Custom Program Exits
mntdbr.p	mgbr014.p	Menu Translation Browse
mpbr.p	gpbr174.p	Master Specifications
mpcabr.p	mpbr001.p	Test Results Browse
mpmpbr.p	mpbr002.p	Master Spec Detail
mpmpbr01.p	mpbr003.p	Where Used – Specs
mpmpbr02.p	mpbr004.p	Item Specifications
mrpbr.p	gpbr175.p	Order Browse
mrwobr11.p	mrbr001.p	Planned Order Browse
msmsbr02.p	msbr001.p	Master Schedule Orders
natrbr.p	gpbr331.p	Nature of Transaction Browse
ntwkbr.p	gpbr177.p	Network Master
oacdbbr.p	gpbr178.p	Action Codes Browse
opmtbr.p	gpbr179.p	Standard Operation Tools
opnibrnv.p	gpbr180.p	Open Invoices Browse
pc2br.p	gpbr181.p	Price List Browse

Table 12.1 — *Modified Browse Program Names* — (Page 8 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
pilibrst.p	gpbr182.p	Price List Master
pimabrn.p	gpbr183.p	Price List Master
pobr.p	gpbr184.p	Purchase Order Master
poacbr.p	pobr001.p	Purchase Approvals
poacbr01.p	pobr002.p	Purchase Approval Limits
poblbr.p	pobr003.p	Blanket Order Browse
pocrbr.p	gpbr185.p	PO Ship-Via Carriers
polnbr.p	gpbr186.p	Purchase Order Detail
popobr01.p	pobr004.p	Receipt Transactions
popobr02.p	pobr005.p	Purchase Receipt Browse
popqbr.p	pobr006.p	Purchase Order Browse
poprbr.p	pobr007.p	Purchase Reqs Browse
porqbr.p	gpbr187.p	Purchase Order Master
poscbr.p	gpbr188.p	Scheduled Purchase Order
postbrby.p	gpbr189.p	Sort by Browse
potrbr01.p	pobr008.p	Receipt Transactions
ppcpbr.p	ppbr001.p	Customer Item Browse
ppcsbr.p	ppbr002.p	Item Cost Set Browse
pppcbr.p	ppbr003.p	Price List Browse
pppcbra.p	ppbr004.p	Price List Min Qty 6–10
pppcbrb.p	ppbr005.p	Price List Min Qty 11–15
ppplbr.p	ppbr006.p	Product Line Browse
ppplbr01.p	ppbr007.p	Product Line Inv Browse
ppplbr02.p	ppbr008.p	Product Line Sale Browse
ppplbr03.p	ppbr009.p	Product Line Purc Browse
ppplbr04.p	ppbr010.p	Product Line WO Browse
ppplbrd.p	ppbr011.p	PL Inventory Detail
ppplbrs.p	ppbr012.p	PL Sales Detail Browse
ppptbr.p	ppbr013.p	Item Master Data Browse
ppptbr01.p	ppbr014.p	Item Inventory Data Browse
ppptbr02.p	ppbr015.p	Item Planning Browse

Table 12.1 — *Modified Browse Program Names* — (Page 9 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
ppptbr03.p	ppbr016.p	Item Cur Cost Summary
ppptbr05.p	scbr004.p	Cost Element Browse
ppptbr11.p	ppbr018.p	Item Site Inv Browse
ppptbr12.p	ppbr019.p	Item Site Plan Browse
ppstbr.p	ppbr020.p	Item St Code Browse
ppumbr.p	ppbr021.p	Unit of Measure Browse
ppvbr.p	ppbr022.p	Supplier Item Browse
prbr.p	gpbr307.p	Printer Master Browse
prelbrst.p	gpbr190.p	Price Tables (Type L)
prdbbr.p	gpbr191.p	Printer Detail Browse
prhrbr.p	gpbr192.p	Receivers Browse
prhsbr.p	gpbr193.p	Packing Slips Browse
probbbr.p	gpbr194.p	Problem/Skills Browse
psbr.p	gpbr195.p	Product Structure Master
pslbr.p	gpbr196.p	Product Structure Master
ptdebrsc.p	gpbr197.p	Item Descriptions Browse
ptpdr.p	ptbr001.p	Item Planning Detail
ptstbr.p	gpbr198.p	Item Status Master
	ptbr002.p	Item Substitution Browse
pttybr.p	gpbr199.p	Item Master Browse
qcbr.p	gpbr200.p	Quality Order Browse
qcdobrc.p	gpbr201.p	Documents Available
qcprbroc.p	gpbr202.p	Procedures Browse
qcrobrut.p	gpbr203.p	Routing/Procedure Browse
qcspr.p	qcbr001.p	Sampling Pattern Browse
qctebrs.p	gpbr204.p	Procedure Test Steps
qctsbr.p	qcbr003.p	Procedure Browse
qcwcbtr.p	gpbr205.p	Work Center & Machine
qcwobr.p	qcbr004.p	Quality Order Browse
qobr.p	gpbr206.p	Sales Quote Master
qocrbr.p	gpbr207.p	Quote Ship-Via Carriers

Table 12.1 — *Modified Browse Program Names* — (Page 10 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
qoshbr.p	gpbr208.p	Quote Master Browse
qpsbr.p	gpbr209.p	Inspection Components
rbd2br.p	scbr007.p	Invoice History Browse
rbmbr.p	gpbr211.p	Retrobill Master Browse
rcccbr.p	rcbr001.p	Customer Calendar Browse
rcccbr1.p	rcbr002.p	Operating Hrs Exceptions
rcccbr2.p	rcbr003.p	Shop Calendar Holidays
rcpbr.p	rcbr004.p	Customer Order Periods
rcsdr.p	gpbr212.p	Ship/Delivery Patterns
rcsbr.p	gpbr213.p	Scheduled Sales Orders
rechbr.p	rebr001.p	Line Changeover Browse
regbr.p	fsbr024.p	Region/Area Browse
relnbr.p	rebr002.p	Production Line Browse
relnbr01.p	rebr003.p	Production Line Detail
repkbr.p	gpbr214.p	Repetitive Pick List
resbr.p	gpbr215.p	Resource Master
resqbr.p	rebr004.p	Line Schedule Browse
rewobr.p	rebr005.p	Cumulative Order Browse
rmdbr.p	gpbr216.p	Open RMA Lines Browse
rmdrbr.p	gpbr217.p	RMA Receipt Lines Browse
rmihbr.p	gpbr218.p	Shipped Items Browse
rmdbr.p	gpbr219.p	Rounding Method Codes
robr.p	gpbr220.p	Routing Detail Browse
roabr.p	gpbr221.p	Alternate Routings
rowgrp.p	gpbr222.p	Row Group Browse
rppqbr.p	rpbr001.p	PL Resource Bill Browse
rprtrbr.p	rpbr002.p	Item Resource Bills
rprsbr.p	rpbr003.p	Resource Detail Browse
rrsnbr.p	gpbr223.p	Reject Reason Codes
rscbr.p	gpbr224.p	Reason Code Browse
rsnbr.p	gpbr225.p	Reason Code Browse

Table 12.1 — *Modified Browse Program Names* — (Page 11 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
rspobr01.p	rsbr001.p	Scheduled Order Browse
rspobr02.p	rsbr002.p	Sched Order – Line Items
rspobr03.p	rsbr003.p	Sched Ord – Line Items(2)
rspobr04.p	rsbr004.p	Sched Order MRP % Browse
rsscbr.p	rsbr005.p	Supplier Calendar Browse
rsscbr01.p	rsbr006.p	Supplier Cal Detail
rsscbr02.p	mgbr017.p	Holiday Browse
rsscbrx1.p	gpbr226.p	Scheduled Order Items
rtsbr.p	gpbr227.p	Return to Supplier Order
rwabr.p	rwbr001.p	Alternate Routing Browse
rwdpbr.p	rwbr006.p	Department Browse
rwopbr.p	rwbr002.p	Standard Oper Browse
rwrobr04.p	rwbr003.p	Operation Cost Browse
rwwcbr.p	rwbr004.p	Work Center Browse
rwrrbr.p	rwbr005.p	Work Center/Routing Stds
sabsbr1.p	gpbr228.p	Containers Browse
sabsbr2.p	gpbr229.p	Unallocated Containers
sabsbr3.p	gpbr230.p	Shippers Browse
sabsbr4.p	gpbr231.p	Shippers/Containers
sapbr.p	gpbr232.p	Contract PM Sched Dates
saqobr.p	gpbr233.p	Service Quotes Browse
sasabr.p	gpbr234.p	Service Contracts Browse
sasabr03.p	sabr001.p	Customer Sales Browse
sasabr04.p	sabr002.p	Items Sales Browse
sasabr05.p	sabr003.p	Salesperson Sales Browse
sasabr5a.p	sabr004.p	Slspn Monthly Browse
satrb03.p	sabr005.p	Customer Tran Det Browse
satrb05.p	sabr006.p	Slspn Trans Det Browse
sbcbr.p	gpbr235.p	Service Billing Cycles
sc03br.p	scbr001.p	Simul Work Center Rates
sc04br.p	scbr002.p	Simul Subcontract Costs

Table 12.1 — Modified Browse Program Names — (Page 12 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
scabr.p	gpbr236.p	Contract Options Browse
sccebr.p	scbr003.p	Simulation Cost Elements
sccebr01.p	scbr004.p	Cost Element Browse
scx2br.p	gpbr237.p	Scheduled Order Item POs
sfopbr11.p	sfbr001.p	Operation Trans Browse
shnbr.p	dnbr004.p	Transportation Network Browse
sobr.p	gpbr239.p	Sales Order Master
socrbr.p	sobr004.p	Sales Order Credits
sodlbr.p	gpbr240.p	Sales Order Line Items
sofcbr.p	sobr005.p	Freight Charges Browse
sofzbr.p	sobr006.p	Freight Zone Browse
soivbr.p	sobr007.p	Invoice History Browse
solnbr.p	gpbr241.p	S/O Detail Browse
sopobr.p	gpbr242.p	Sales Order Master (PO)
soqobr.p	gpbr243.p	Sales Order Quote Browse
sosdbr.p	sobr008.p	Volume Discount Browse
soshbr.p	gpbr244.p	Sales Order Ship-Tos
sosobr.p	sobr009.p	Sales Order Browse
sotlbr.p	sobr010.p	Trailer Code Browse
sotrbr03.p	sobr011.p	Booking Trans Browse
sotrbr04.p	sobr012.p	Shipment Trans Browse
sotrbr05.p	sobr013.p	Sales Order Trans Browse
sotrbr4a.p	sobr014.p	Shipment GL Trans Browse
spbr.p	gpbr245.p	Salesperson Master
spambr.p	spbr001.p	Alternate Matrix Browse
spedbri.p	spbr002.p	Marketing/Product Data
sphhbr.p	mghbr018.p	Salesperson Quota Browse
sphsbr01.p	spbr003.p	Salesperson History
sppsbr.p	spbr004.p	Family Resource Bill
spsbr.p	gpbr246.p	Salesperson Master
spsmbr.p	spbr005.p	Source Matrix Browse

Table 12.1 — *Modified Browse Program Names* — (Page 13 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
sptrbr.p	gpbr247.p	Salesperson Territories
sqqobr.p	sqbr001.p	Sales Quote Browse
srbr.p	gpbr248.p	SR Master Browse
srobr.p	gpbr249.p	Customer Service System
sro1br.p	srbr001.p	SRO Status Browse
sro2br.p	srbr002.p	SRO Failure Browse
sro3br.p	srbr003.p	SRO Assigned Browse
sro4br.p	srbr004.p	SRO Date Browse
sro5br.p	srbr005.p	SRO Item Browse
sro6br.p	srbr006.p	SRO Type Browse
sro7br.p	srbr007.p	SRO Dispositions Browse
sro8br.p	srbr008.p	SRO Customer Browse
srotbr.p	gpbr250.p	Customer Service Browse
srsnbr.p	gpbr251.p	Scrap Reason Codes
srsvbr.p	gpbr252.p	Severity Codes Browse
srtybr.p	gpbr253.p	Call Types Browse
stbr.p	gpbr254.p	State Code Browse
statbre.p	gpbr255.p	State Codes Browse
stprbrsw.p	gpbr256.p	Statistical Procedures
svbr.p	gpbr257.p	Contract/Warranty Types
svddbr.p	gpbr258.p	Service Contract Detail
svsbr.p	gpbr259.p	Service Contract Types
svwbr.p	gpbr260.p	Service Warranty Types
sx2br.p	gpbr261.p	Scheduled Order Item POs
taxcbra.p	txbr008.p	Tax Class Codes Browse
tmbr.p	dnbr004.p	Transportation Mode Browse
trlbr.p	gpbr265.p	Trailer Codes Browse
trlpbr.p	gpbr266.p	Trailer Project Browse
trnbbr.p	gpbr267.p	Transaction Numbers
tx2br.p	gpbr268.p	Tax Codes/Tax Types
txbbr.p	gpbr269.p	Tax Base Codes Browse

Table 12.1 — *Modified Browse Program Names* — (Page 14 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
txebr.p	txbr009.p	Tax Environment Codes
txmebrth.p	gpbr271.p	Tax Method Codes Browse
txtbr.p	txbr010.p	Tax Type Codes
txubr.p	txbr011.p	Tax Usage Codes
txzbr.p	txbr012.p	Tax Zones Browse
txz1br.p	gpbr275.p	Tax Zone Descriptions
umstbr1.p	gpbr276.p	Unit of Measure Browse
unitbr.p	gpbr277.p	Reporting Unit Codes
uom2br.p	gpbr278.p	Alternate UOM Browse
updbr.p	gpbr279.p	Menu Browse
utfibr1.p	utbr001.p	Database File Browse
utflbrd.p	utbr002.p	Database Field Browse
vdapbr.p	gpbr280.p	Supplier Master Contacts
vdpubr.p	gpbr281.p	Supplier Master Contacts
vdsbr.p	gpbr282.p	Supplier Master Browse
vobtbr.p	gpbr283.p	Vouchers by A/P Batch
voenbr.p	gpbr284.p	Voucher Detail Browse
voivbr.p	gpbr285.p	Voucher Master – Invoice
vopjbr.p	gpbr286.p	Voucher Detail Browse
vorfbr.p	gpbr287.p	Voucher Master Browse
voshbr.p	gpbr288.p	Voucher Ship-To Browse
vpbr.p	gpbr289.p	Supplier Item Master
vpmpbr.p	gpbr290.p	Supplier Item Browse
vpmrbr.p	gpbr291.p	Supplier Item Master
vpvdbr.p	gpbr292.p	Supplier Item Master
vtesbr.p	gpbr293.p	Ship-To Address Browse
vtevbr.p	adbr014.p	Supplier Master Browse
wcbr.p	gpbr295.p	Work Centers by Machine
wcmcbrrh.p	gpbr296.p	Work Center Master
wobr.p	gpbr297.p	Work Order Master
wodbr.p	gpbr298.p	Work Order Operation BOM

Table 12.1 — *Modified Browse Program Names* — (Page 15 of 16)

Pre-MFG/PRO 8.5 Program Name	Current Program Name	Description
woltbr.p	gpbr299.p	Work Order Master
woopbr.p	wobr001.p	Work Order Routings
wopbr.p	gpbr300.p	Work Order Projects
wosobr.p	gpbr301.p	Work Order Master
wowabr.p	wobr002.p	Work Order Bill Browse
wowobr.p	wobr003.p	Work Order Browse
wrbr.p	gpbr308.p	Work Order Routings
wr2br.p	gpbr303.p	Work Order Routings
wrltbr.p	gpbr304.p	Work Order Routings
wrsnbr.p	gpbr305.p	Rework Reason Codes
zpbr.p	gpbr306.p	Zip Code Browse

Table 12.1 — *Modified Browse Program Names* — (Page 16 of 16)

Glossary

Client Administration Directory. The target directory specified during the installation of the MFG/PRO client media. This directory contains all of the compiled MFG/PRO code (r-code), as well as master copies of all configuration files. For graphical user interface (GUI) clients, this directory is typically located on a file server. For character user interface clients, this directory is typically located on the database server.

Client Machine. The machine in a client/server configuration, often a PC, that runs the client session.

Client Session. An executable running an application that accesses a server running a database.

Client Working Directory. The target directory specified during MFG/PRO client setup. This directory contains the files needed to run an MFG/PRO client session.

Client/Server. The configuration in which a client session runs on a separate machine from the database server process. MFG/PRO GUI clients run in a client/server configuration.

Client/Server Connection. A connection in which a client session runs on a separate machine from the database server process. MFG/PRO GUI clients require a client/server connection.

Code Page. A character set used to map data represented in one code page to another. Since a code page is specific to your hardware or operating system, Progress converts data from one code page to another. If the client code page is different than the database code page, Progress handles the conversion between them. In an MFG/PRO on Oracle environment, the Progress DataServer for Oracle must use the same code page as the Oracle schema holder. Therefore, you may need to modify the code page before loading the database definitions for an Oracle database.

Column. Oracle's term for an element in a table that holds one type of information, such as an address. Progress's term is *field*.

Connection Parameter. A Progress parameter that controls how a client session connects to a database.

Conversion. Refers to the transition from one numbered release to the next, such as MFG/PRO 7.2 to MFG/PRO eB2. Conversions involve program fixes and, in some cases, major schema changes.

Data Definition File. A file containing the database table, field, and index definitions that make up the MFG/PRO schema. A data definition file has a `.ddf` extension.

Database. *see Oracle Database.*

Database Server. The machine on which the database is located.

Database Server Administration Directory.

The target directory specified during the installation of the MFG/PRO database server media. This directory is located on the database server machine and contains all of the database-related files for an MFG/PRO environment.

Database Set. A set of databases that form a logical group. MFG/UTIL uses the concept of database sets to generate client startup scripts and icons. The standard MFG/PRO database set consists of a schema holder and Oracle database.

DataServer for Oracle. A Progress product that enables Progress applications to access and store information in an Oracle database.

Default System Data. The data that initially populates the menu, messages, printers, language code, and other default data files.

Field. Progress's term for an element in a table that holds one type of information, such as an address. Oracle's term is *column*.

File Server. A server that enables multiple client machines to share common files and directories. QAD recommends storing MFG/PRO GUI client code on a file server to enable centralized administration of the code and client configurations.

Foreign Database Reference. A logical database name used by MFG/PRO programs to connect to the Oracle database. The standard name is `qaddb`.

Instance. A mechanism for accessing and controlling an Oracle database. It is composed of a shared memory area and a set of processes.

Instance Directory. See Oracle Instance Directory.

Local Client. A client process running on the same machine as the database process.

This allows the client session to communicate directly with the database rather than over the network. This type of connection greatly increases system performance. By default, MFG/PRO character clients are local clients.

Log File. A file created each time MFG/UTIL completes a series of tasks. You can view log files in any text editor.

Net8. Oracle's networking software that allows the Progress dataserver to run locally on each client and to communicate with an Oracle database on a remote machine.

Network File System (NFS). A client/server application that lets a user view and optionally store and update files on a remote computer as though the files were on the user's own computer.

Oracle Call Interface (OCI). The OCI code contains all of the information required to initiate a SQL dialog between the client and the server.

Oracle Database. For the purposes of this manual, this term refers to a logical set of schema objects owned by a particular Oracle user.

Oracle Instance Directory. The primary instance directory containing key files such as `init.ora` and key subdirectories, such as `back`, `core`, and `user`.

ORACLE_SID. The environment variable that defines the system ID for the Oracle database. In most cases, it should be the same as the actual Oracle database name.

Parameter File. A file that contains startup parameters for an MFG/PRO GUI client session. These parameters include both Progress and MFG/PRO database details. This

file is located in the client working directory on each client machine and uses the following naming convention:

DatabaseSetName.pf.

R-code. A term used to describe MFG/PRO compiled code, derived from the `.r` file extension.

Record. Progress's term for an entry in a table; Oracle's term is *row*.

Redundant Array of Independent Disks (RAID). Data storage methods that place the same (redundant) data on multiple (array) hard disks to protect against network downtime due to disk failure. There are several RAID levels; the following are discussed in this book:

- RAID1: Disk Mirroring consists of at least two drives with the same data duplicated on both drives.
- RAID5: Disk Striping with Parity stores data and parity information in alternating stripes across the disks in the array.

Relational Database Management System (RDBMS). Takes SQL statements and creates, updates, or provides access to the database.

Row. Oracle's term for an entry in a table; Progress's term is *record*.

Schema. The definition of a database including the tables it contains, the fields within the tables, indexes, and views. In addition to database definitions, MFG/PRO schema contain items such as validation expressions and messages.

Schema Holder. A database file containing the MFG/PRO schema. This file is used in an MFG/PRO on Oracle environment to facilitate communication between MFG/PRO, the Progress DataServer for Oracle, and the Oracle database.

Schema Update (minor update). CRCs and timestamps are unaffected by these minor changes only: modifications of formats, labels, and validation expressions/messages. All programs must be recompiled to see the effect of minor changes.

Server. The machine that enables client connections to a shared resource.

SID. *See* ORACLE_SID.

Single-User Mode. A client connection mode that allows only a single user to connect to a database. Single-user mode is invoked by using the `-1` startup parameter in the client startup script or parameter file.

Small Computer System Interface (SCSI).

Set of standard interfaces that allow personal computers to communicate with peripheral hardware such as disk, tape, and CD-ROM drives with efficiency and flexibility.

Startup Parameter. A Progress parameter used when a client connection is made to a database.

Structured Query Language (SQL). Oracle's programming language for getting information from and updating a database.

Symmetric Multiprocessing (SMP). The processing of programs by multiple processors sharing a common operating system and memory.

Tablespace. The largest physical unit of an Oracle database. Tablespaces provide control over the location of database objects such as indexes, tables, data.

Triggers. A series of programmed responses to any type of interaction a user or operating system has with an application. For more information, see the *Progress Programming Handbook*.

Universal Naming Convention (UNC). A way to identify a shared file without having to specify the storage device it is on.

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