



Installation Guide

**PROGRESS DATABASE
ON WINDOWS NT SERVER**



78-0357
MFG/PRO Version 9.0
Printed in the U.S.A.
March 1999

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78-0357

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Using This Guide

Use this guide to install MFG/PRO for Windows NT[®] Version 9.0 on Intel-based and Digital Alpha[®] Windows NT systems.

The instructions in this guide include how to:

- Install the server software for MFG/PRO Version 9.0
- Install Windows GUI and character clients for MFG/PRO Version 9.0
- Convert an MFG/PRO Version 7.4, 8.5, or 8.6 production database to MFG/PRO Version 9.0

Audience

These instructions are for the MFG/PRO system administrator who manages the MFG/PRO database and is familiar with Microsoft Windows NT, networking, and PROGRESS[®] software.

Installation Errata

In addition to these instructions, you may receive a supplementary errata sheet with changes and additional instructions. Check your product package.

Release Bulletin

In conjunction with these instructions, see the *MFG/PRO 9.0 Release Bulletin* for additional utilities required for the modules you use. These utilities, which are related to a particular programming patch (ECO), correct possible corruptions in your data.

QAD Web Site

For QAD customers with a Web account, MFG/PRO documentation is available for review or downloading at:

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

To obtain a QAD Web account, go to:

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

Other MFG/PRO Version 9.0 Documentation

- For an overview of new features and software updates, see the *Release Bulletin*.
- For instructions on navigating the MFG/PRO environment, see the *User Interface Guide*.
- For information on the entire system, see the *User Guides*.
- For technical details, see the *File Relationships* and *Database Definitions*.
- For system administration information, see the *System Administration Reference Guide*.
- To view documents online in PDF format, see the *Documents on CD*.

Document Conventions

This document uses the conventions listed in the following table.

If you see:	It means:
monospaced text	A command or file name.
<i>italicized monospaced text</i>	Italicized monospaced text indicates a variable name for a value you enter as part of an operating system command. For example, <i>YourCDROMDir</i> .
indented command line	A long command that you enter as one line (although it appears in the text as two lines).

QAD's Global Technical Services

MFG/PRO installations have a wide variety of configuration possibilities, are highly scalable, and are easily customized. While this guide provides basic installation and conversion information, it cannot consider every possible MFG/PRO 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's Global Technical Services. These offerings include performance enhancements—such as multiple-volume and split-schema databases—as well as technical and administration training and support for MFG/PRO conversions.

Installation Overview

This product is defined as MFG/PRO running against a PROGRESS database installed on an Intel or Digital Alpha machine running Windows NT. This chapter presents basic concepts that you should understand when completing the installation.

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Routing Code: 10-15000		Operation: 20	DESCRIPTION: INSPECTION, ALL SITES
Standard Operation	Work Center	Machine	
Description	Machines per Op	Overlap Units	Queue Time
			Wait Time
			Setup Time

Installation and Conversion Summary

The basic MFG/PRO installation consists of the following major tasks.

Preinstallation

- Install PROGRESS for the database server and client PCs.
- Set up the network.

Database Server Setup

- Optimize the Windows NT server.
- Run the installation program to load database server media, including Windows character client programs, and create database start-up icons.
- Install the Service Pack Server media onto the server, if applicable.
- Set up HOSTS and SERVICES files.

▶ See “Loading Service Pack Media” on page 8.

Loading Client Media

Because MFG/PRO Version 9.0 is a client/server product, you perform installations on both the database server and client machines. Installation of client machines typically involves loading MFG/PRO programs to a network file server machine. You can install two types of clients:

- Windows character clients with a character user interface (CHUI)
- Windows GUI clients with a graphical user interface (GUI)

Note The MFG/PRO code used for Windows character clients is the same code used to run batch processes. Therefore, it is automatically installed along with the database server files.

The following major tasks are required to load client media.

For Windows GUI clients:

- Load the Windows GUI client media onto a file server.
- Load the Service Pack Windows Client media onto the file server, if applicable.

For Windows character clients:

- Optionally, load the Windows character client media onto a file server.
- Load the Service Pack Server media onto the file server, if applicable.

Note Because Windows character client code is the same code used to run batch processes, it is contained on the Service Pack Server media.

Windows GUI and Character Client PC Setup

- Set up the needed files and start-up icons on the first PC.
- Set up all other PCs; you can use the *express setup* feature.

Existing Database Conversion (optional)

Conversions are possible from MFG/PRO Versions 7.4 through 8.6 to MFG/PRO Version 9.0. If you are converting to MFG/PRO 9.0, read the prerequisites in Chapter 8, “Convert an Existing Database,” on page 107 *before* you begin the MFG/PRO installation. The prerequisites explain differences in the way you should install MFG/PRO 9.0 depending upon the conversion you are performing.

Loading Service Pack Media

▶ See the Service Pack installation instructions in your product package for specific procedures.

Service Packs contain MFG/PRO product updates issued between releases. Service Packs include important patches, code updates, system administration tools, drivers, and additional components. Service Packs offer a distinct advantage over the single-patch delivery mechanism by bundling a carefully controlled group of fixes and updates in an easily installed and well-documented package.

Service Packs are not offered for every release of MFG/PRO. If your product package does not contain Service Pack media, your release does not currently have a Service Pack.

If you are performing a new installation, the following major tasks are required to load Service Pack media.

- Load the Service Pack Server media onto your MFG/PRO database server after installing and configuring your MFG/PRO databases.
- Load the Service Pack Windows Client media onto each Windows client or onto your network file server, depending upon your MFG/PRO configuration.
- If you have MFG/PRO Windows character clients, load the Service Pack Server media, which contains the updates and fixes for Windows character clients, onto each client or onto a network file server, depending upon your MFG/PRO configuration.

If you are performing a conversion or upgrade to an MFG/PRO release with a Service Pack, the following major tasks are required to load Service Pack media.

- Load the Service Pack media onto your MFG/PRO database server after completing your conversion or upgrade.
- Load the Service Pack Windows Client media onto each Windows client or onto your network file server, depending upon your MFG/PRO configuration.
- If you have MFG/PRO Windows character clients, load the Service Pack Server media, which contains the updates and fixes for Windows character clients, onto each client or onto a network file server, depending upon your MFG/PRO configuration.

Multiple Language Installation Overview

To install multiple languages, repeat the following installation tasks for each language.

- Load the MFG/PRO NT server CD-ROM on the database server.
- Load the Windows client CD-ROM on the file server.
- Load translated system data and online help.
- Create a set of language-specific databases for use in compiling.

For instructions, see “Multiple Language Setup” on page 75.

Another factor in multi-language environments is the language codepage, which controls how PROGRESS stores and retrieves data. A codepage applies to one or more languages; for example, codepage ibm850 applies to all western European languages. Because data storage and retrieval must use a single codepage, the languages in a multi-language environment must be in the same codepage family. The correct codepage for data storage and retrieval is assigned during installation.

Note If you use the European Monetary Union’s currency, the euro, your choice of codepage may change.

MFG/PRO Language Codes

During installation and user setup, you use an MFG/PRO language code to specify which language you are installing. Table 1.1 lists all of the MFG/PRO language codes. (Some languages may not be available for this release.) The language code also appears on the label of your product media.

Language	Code
Arabic	AR
Bulgarian	BU
Chinese (Traditional)	TW
Chinese (Simplified)	CH
Czech	CZ
Danish	DA
Dutch	DU
Finnish	FI

Language	Code
Japanese	JP
Korean	KO
Norwegian	NO
Polish	PL
Portuguese	PO
Romanian	RO
Russian	RU
Spanish (Castilian)	CS

Table 1.1
MFG/PRO
Language Codes

Language	Code
French	FR
German	GE
Greek	GR
Hungarian	HU
Italian	IT

Language	Code
Spanish (Latin)	LS
Swedish	SW
Turkish	TU
US English	US

How Language Sessions Operate

After installation, you assign a language code to each user to determine which language they use. Based on the language code, the user connects to a language-specific set of programs and accesses language-specific system data including menus, messages, and help.

Client/Server Environment

A client/server installation is mandatory for running MFG/PRO for Windows NT. The clients are personal computers (PCs) that run MFG/PRO software programs locally. The database server is an Intel-based or Digital Alpha system running Microsoft Windows NT and the PROGRESS relational database management system (RDBMS). The database server is connected to the client PCs and file server using a network.

Note The client programs can be Windows-based or character-based. Character-based clients require the PROGRESS Win32 Intel-Character Client software.

QAD recommends using a network file server to store programs because it alleviates storing programs on each PC. This enables you to update programs at a central location instead of updating each PC. Although the file server and database server can be the same machine, performance is better with the file server as a separate machine.

Figure 1.1 shows a sample network configuration for an MFG/PRO for Windows NT Version 9.0 client/server environment.

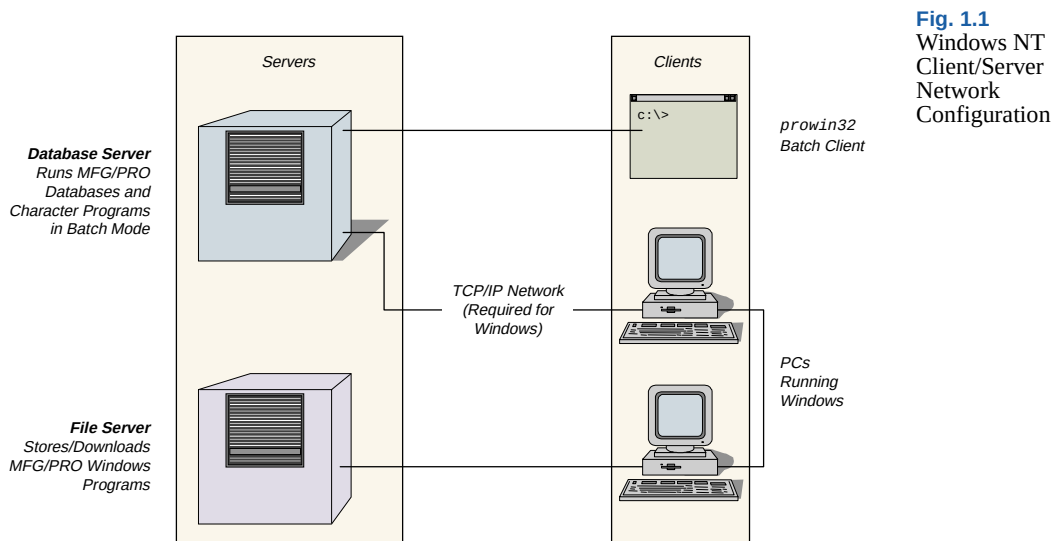


Fig. 1.1
Windows NT
Client/Server
Network
Configuration

Warning Do not use an MFG/PRO for Windows client to run MRP, batch reports, and other large processes. This places extra demand on network communications and degrades system performance. Instead, use a batch mode client on the database server.

MFG/UTIL and MFG/CONV

MFG/PRO Version 9.0 has two programs to control the installation and conversion. These programs are MFG/UTIL and MFG/CONV.

MFG/UTIL is the installation and system management tool for MFG/PRO, which performs most of the server and client installation processes. It is loaded on your server during installation. There is also a Windows version of MFG/UTIL loaded when you set up each client PC.

With the MFG/UTIL system management tools, you can compile programs, create dump and load procedures, update schemas, and create start-up and shutdown icons for databases and clients.

MFG/CONV is the conversion program for MFG/PRO that is installed on your database server during installation. For more information, see “Convert an Existing Database” on page 107.

MFG/UTIL Log Files

MFG/UTIL logs the progress, results, and any errors encountered for most operations. These logs are displayed on the screen as the functions are progressing. They are also saved in an ASCII text file for later examination. Each time MFG/UTIL runs a prolonged task such as compiling or loading a .df file, it creates a new log file.

The most recent log file is always called `mfgutil.log`. Older log files are named with the convention `mfgulog.xxx`, where xxx is a number from 001 through 999. The lower the number, the older the file. For example, these files are listed newest to oldest:

```
mfgutil.log
mfgulog.002
mfgulog.001
```

MFG/UTIL does not delete or purge any log files. If you want to delete any older log files, use standard operating system commands.

MFG/PRO Databases

The installation loads the following pre-built databases. Several of the databases come in pairs: an empty version that contains only the schema and a full version that contains default data in addition to the schema.

Table 1.2
Databases Created
During Installation

Databases	Notes
mfgempty and mfg	The mfgempty database consists of only the MFG/PRO schema with no system data. The mfg database is a copy of mfgempty, to which data from the mfg directory has been loaded. This data includes the default menus, messages, and minimum data required to start MFG/PRO. The mfg database is copied to make your production database.
hlpempty and mfghelp	A single help database is usually shared by a number of production or test databases. The mfghelp database is a copy of hlpempty with help data added to it.
guiempty and gui	The gui database includes the data needed to run MFG/PRO for Windows and all object programs. It is therefore required for character clients. The gui database is a copy of guiempty with data from the gui directory added to it.

Databases	Notes
cfempty and cfg	The cfg (Configurator) database stores the data from the Component Configurator maintenance programs. This module enables you to customize MFG/PRO object programs. The cfg database is a copy of cfempty with data from the cfg directory added to it.
mfgtrain	A copy of mfgempty, to which data from the mfgtrain directory has been loaded.
mfgdemo	A copy of mfgempty, to which data from the mfgdemo directory has been loaded.
tritrain	A copy of mfgempty, to which data from the tritrain directory has been loaded.

Database Sets

One of the functions of MFG/UTIL is to configure start-up parameters using the concept of *database sets*. A database set defines the connection parameters for a group of databases. To run MFG/PRO, a database set must contain at least the following.

- Production, demonstration, or training database
- Help database
- Gui database
- Configurator database if you want to use the Component Configurator module

Optionally, you can also include custom side databases.

You can set up different database sets for different purposes. For example, in a Production set, you can connect to your production database, a help database, and a gui database. In a training database set, you can connect to a training database and the same help and gui databases used in the Production set.

MFG/UTIL uses the database set information to create server and client start-up icons. It also creates a Windows initialization file (for example, `progress.svg`) and a start-up parameter file (for example, `producti.pf`). The parameter file contains the required connection parameters for your databases.

MFG/PRO and PROGRESS Directories

The following table lists the default directory names for various MFG/PRO and PROGRESS components.

If you use the Windows NT file system (NTFS) and compression, all of the files will fit on one 2GB disk drive. However, for optimum performance, spread your files and databases across multiple disk drives.

Table 1.3
MFG/PRO and
PROGRESS
Directories

Function	Location	Default Directory
PROGRESS NT Server	NT Server	c:\DLC
ProVISION SA	NT Server (Intel-based)	c:\DLC
PROGRESS for Windows and PROGRESS Character Client	Client PCs	c:\DLC
MFG/PRO for Windows NT Server	NT Server	c:\MFGNTSVR
MFG/PRO Client File Server	File Server	c:\QADGUIFS
MFG/PRO for Windows GUI or Character Client Working Directory	Client PCs	c:\QADCLI
Hosts/Services Files	NT Server	\WINNT35\SYSTEM32\DRIVERS\ ETC
	File Server	Depends on operating system and protocol stack
	Client PCs	Depends on operating system and protocol stack

User License Overview

MFG/PRO user licensing tracks user counts and alerts QAD customers to license violations. Additionally, user licensing alerts customers to the expiration of MFG/PRO evaluation software.

License utilities do not currently restrict the total number of users that can log into MFG/PRO. This means that a user is not prevented from logging in when the total number of licensed users is exceeded. User counts are tracked according to the two licensing schemes QAD currently sells: concurrent and named users.

Note The user license utility applies only to MFG/PRO modules licensed by user count. For example, it does not apply to the EDI module.

User Licensing System

When QAD ships an order, a license code is supplied for each site. This license code, which is comprised of several numbers, identifies to MFG/PRO the number of users for which the site is licensed.

When the software is first installed, the first user logging into MFG/PRO (typically, the system administrator) is prompted to enter the supplied license code.

When a user logs in and the number of logged in users exceeds licensed users, two error messages display. The user must press OK or Enter to exit each message.

When a user logs in within 10 days of evaluation software's expiration date, a warning displays. After expiration, no users can log in and the customer must contact their distributor or QAD for a renewal or temporary license code.

User Licensing Programs

The programs related to user licensing are on the Database Management Menu (36.16). They are:

- License Registration (36.16.10): program to modify the license code
- License Violation Report (36.16.11): a report showing system logins that violate the user license count
- User Inquiry (36.16.12): a browse to monitor the activity of users

Named and Concurrent User Licensing

The user count is calculated differently depending on whether you purchased concurrent or named user licensing. In concurrent user licensing, each concurrent login to MFG/PRO is counted as a concurrent user. If a single user logs into multiple MFG/PRO sessions simultaneously, each login is counted separately. In named user licensing, each physical user logging into MFG/PRO is counted as one user, regardless of how many simultaneous sessions they have.

Table 1.4 is an example of QAD licensing schemes.

Table 1.4
Licensing Schemes

Physical Users	Named User License Count	Concurrent User License Count
John logs into an MFG/PRO session.	Counts as one user.	Counts as one user.
Mary logs into an MFG/PRO session.	Counts as one user.	Counts as one user.
Mary logs into another MFG/PRO session.	Does not count as an additional user.	Counts as one user.
Total Physical Users: 2	Total User Count: 2	Total User Count: 3

Online Help Options

During installation and implementation, keep in mind the two mechanisms for displaying MFG/PRO online help: the help database and Windows hyperlink files (WinHelp). Although the display methods differ, the help content is the same.

Method	Source	Interface	Custom Support
Help Database	Database mfghelp.db	Character or Windows GUI clients in any language.	Add custom help using Field Help Maintenance (36.4.13).
Windows Hyperlink Help (WinHelp)	The .hlp files under: <i>WinInstallDir/Language Dir/help</i>	Only Windows GUI clients in English.	Currently does not allow custom help.

Table 1.5
Comparison of
Online Help
Methods

You can control which type of help displays for each user through User Interface Profile (36.20.4).

Do not confuse a similar maintenance program, Window Help Maintenance (36.4.21), with the Windows hyperlink help. Window Help Maintenance controls a look-up feature called scrolling windows and does not affect the Windows hyperlink help.

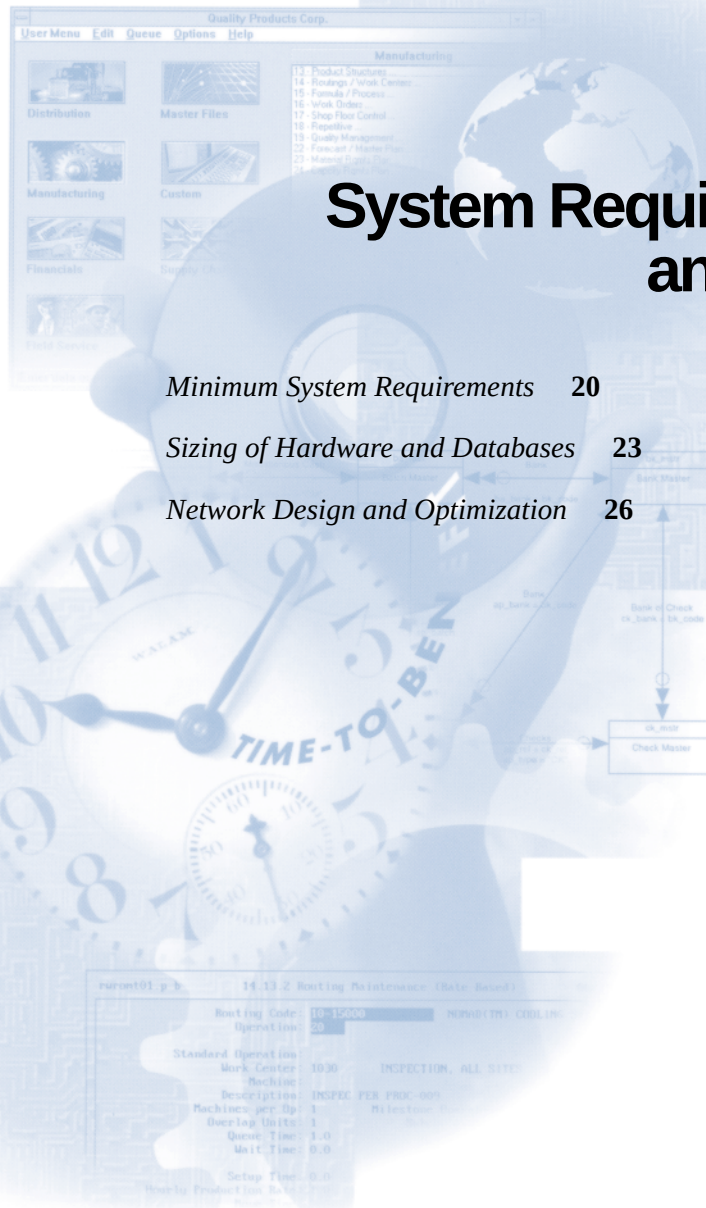
CHAPTER 2

System Requirements and Sizing

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Minimum System Requirements

The following are the recommended *minimum* configurations for MFG/PRO Version 9.0 for Windows NT.

Database Server Hardware–Minimum Requirements

- Must run Microsoft Windows NT Server Version 4.0.
- Must be at least P6 Intel Pentium Pro or Digital AlphaServer 300 (or larger) machine with 128MB (or larger) RAM. If Intel-based, it should be SMP-capable with at least one 200MHz processor. Two processors are recommended if you plan to run concurrent batch processing.
- At least one 4.0GB drive and three 2.0GB drives (see also “Disk Layout” on page 25).
- At least two disk controller channels.
- ISO9660 CD-ROM drive.
- 32-bit Windows NT-supported network card.
- It is also *highly* recommended to configure the server with a 4mm DAT tape drive for database backups.
- Should be directly connected to a high-speed network backbone.

Database Server Software

Note Listed here are PROGRESS version *numbers* only. Contact your PROGRESS or MFG/PRO sales representative for the specific *lettered* release best suited to your hardware.

- Microsoft Windows NT Server Version 4.0 is required.
- PROGRESS Version 8.3 Enterprise Database Server for Windows NT, licensed for the appropriate number of users. There is a version for Intel-based servers and a different version for Digital Alpha-based NT servers.

- PROGRESS Version 8.3 ProVISION or 4GL for MS-Windows, single-user license. ProVISION or 4GL is required to run conversions, the MFG/UTIL compile option, and other MFG/UTIL options.

These products are not yet available on the DEC Alpha. If you have a DEC Alpha, install ProVISION or 4GL on an Intel-based machine instead and perform administration over the network.

- One copy of PROGRESS Network client installed in the ProVISION directory to enable you to connect to NT databases.
- MFG/PRO Version 9.0 server media.
- Additional Recommendation: Windows NT Resource Kit is strongly recommended. The resource kit provides additional tools for managing the Windows NT environment.

File Server

The software used by Windows GUI clients can be installed either on each client PC for best performance or on a shared network drive for easier maintenance. If you use a network file server, the recommended network operating system is Microsoft Windows NT. Keep in mind that PROGRESS requires additional steps for network setup.

► For PROGRESS network setup details, see the PROGRESS installation instructions.

Windows GUI Client Hardware—Minimum Requirements

The recommended configuration for the client workstation is:

- 166MHz (or faster) Intel Pentium processor
- RAM: 64MB
- Super VGA video
- 32-bit network card

Windows GUI Client Software

▶ For details, see “File Server” on page 21.

This software can be installed on each client PC or a shared network drive (file server).

Note Listed here are PROGRESS version *numbers* only. Contact your PROGRESS or MFG/PRO sales representative for the specific *lettered* release best suited to your hardware.

- Microsoft NT Workstation, Windows 95 or 98.
- PROGRESS Query Version 8.3.
- PROGRESS Client Networking Version 8.3.
- MFG/PRO Version 9.0 Windows media. The Windows software must correspond to the same release of the server software.

Windows Character Client Hardware—Minimum Requirements

- 90MHz (or faster) Intel Pentium processor.
- RAM: 16MB for Windows 95 or 32MB for Windows NT Workstation or Windows 98.
- Super VGA video.
- 32-bit network card.

Windows Character Client Software

▶ For details, see “File Server” on page 21.

This software can be installed on each client PC or a shared network drive (file server).

Note Listed here are PROGRESS version *numbers* only. Contact your PROGRESS or MFG/PRO sales representative for the specific *lettered* release best suited to your hardware.

- Microsoft NT Workstation, Windows 95 or 98.
- PROGRESS Win32 Intel-Character Client, Version 8.3.

- PROGRESS Query Version 8.3.
- PROGRESS Client Networking Version 8.3.
- MFG/PRO Version 9.0 character media, shipped on the MFG/PRO for Windows NT Server CD-ROM.

Network

- Software: The network should be a WINSOCK-compliant 1.1 TCP/IP protocol stack, such as MS TCP/IP or PC-TCP from FTP software.
- Topology: 10Mbit Ethernet or 16Mbit token ring network or faster. The network should be a high-speed backbone with the client PCs attached via switched shared media segments.

Sizing of Hardware and Databases

In considering system sizing for the MFG/PRO server, the key areas are:

- Disk space requirements
- Memory size formula
- Database size
- Disk layout
- Server CPU sizing

Disk Space Requirements

Disk space requirements change as your production databases grow or as you reconfigure your system for performance. If you are unsure of the actual disk space required, always overestimate the amount needed for installation. Use Table 2.1 as a guideline for the initial installation.

These estimates are based on the Windows NT (NTFS) disk format. If you use the file allocation table (FAT) disk format, you will need more disk space; however, a FAT disk format is not recommended for the database server or file server.

Table 2.1
Disk Space
Requirements

To Install...	You should have at least this much available disk space...
MFG/PRO Database Server Software	1GB. An additional 650MB is needed for each additional MFG/PRO language you install, and an additional 300MB space is needed if you load the source code cross-reference data.
MFG/PRO Windows GUI client (on File Server or PC)	650MB, including source code
MFG/PRO Character Client (on File Server or PC)	550MB, including source code
PROGRESS NT Enterprise Server	55MB
ProVISION (single-user)	75 to 100MB
PROGRESS for Windows (Client PC)	60MB
PROGRESS Win32 Intel-Character Client	20MB
Client PC MFG/PRO Directory	5 to 10MB depending on customization

Memory Size Formula

The memory size formula is:

$$[(6 \times \text{Number_of_Concurrent_Users}) + 32 + (\text{Number_DBs} \times 48)] \times 1.2 = \text{MB}$$

Here is an example with 50 users and 2 production databases:

$$[(6 \times 50) + 32 + (2 \times 48)] \times 1.2 = 519.4\text{MB}$$

Database Size

For a site with 50 users, the database can be up to 1000MB (1 gigabyte).

This estimate is based on the following assumptions:

- Most MFG/PRO modules are being used, except Service/Support Management.
- General Ledger (GL) consolidations are done after period closing.
- One year of rolling history is kept online. For each additional year of history to be kept online, increase the database size by 50% of original size identified.

Disk Layout

This system should have at least four physical disk drives, minimum 2GB each, and at least two controller channels. For better performance, spread the production database across additional drives.

For an example disk layout, see Figure 2.1.

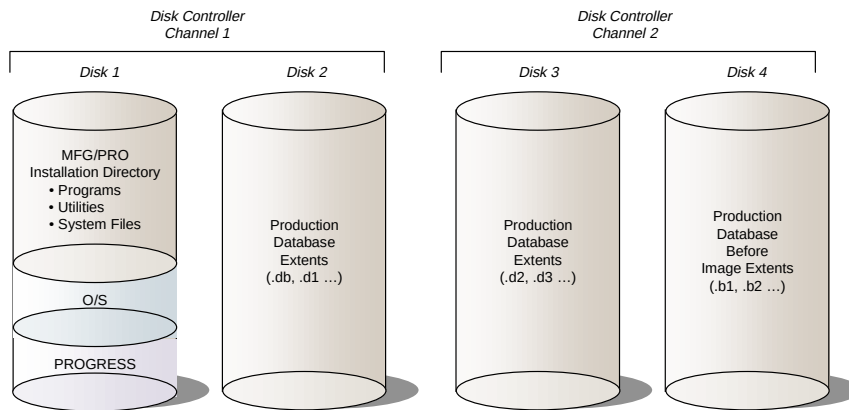


Fig. 2.1
Example Disk
Layout

There should not be more than four disk spindles per disk input/output channel with SCSI or SCSI II drives. Fast and Wide SCSI drives might handle five or six disk spindles.

Mirroring is strongly suggested on all drives except the drive containing the operating system, PROGRESS, and MFG/PRO programs.

Note Although RAID5 offers a cost advantage over mirroring, it does not resolve disk I/O issues caused by write-intensive applications. For this reason, mirroring is preferred over RAID5.

Before-Image File Relocation

By default, the installation places the database .bi file in the same directory as the .db file. It is recommended that you relocate the .bi file and modify start-up and shut-down scripts to redirect the system to the proper .bi location. This is done by using the -g parameter, along with the .bi file name and location, on the script execution statement. Perform this relocation *after* you install, but be aware *before* you install that your hardware must be prepared and configured for this relocation.

While an additional production database can share the disk drive of another, there should be a separate drive for the additional .bi file.

CPU/Server and Client Sizing

CPU sizing varies depending on the installation model, number of users, number of transactions, and so on. For instance, if client/server is the primary model, then approximately 30% less CPU capacity would be required than for the host-based model. Several hardware vendors can make CPU recommendations with their equipment. MFG/PRO and PROGRESS support Symmetric Multiprocessing environments and can use them very effectively for interactive functionality.

Network Design and Optimization

An important key to client/server performance is proper network design and flexibility. When designing the network, pay particular attention to configuration flexibility and utilization measurement capability. Unfortunately, it is difficult to predict what the access patterns or departmental utilization will be. Network performance is a dynamic and evolving target.

The initial network should consist of a high-speed backbone with switched-shared media segments. Initially, you should plan on between 10 and 12 PCs per 10Mbps local-area network (LAN) segment. The usage of each segment should be measured and adjusted as the MFG/PRO users begin to establish their access patterns.

After installation, the network must be constantly measured and adjusted to provide the most appropriate service to each user. For example, you might find that a certain LAN segment is over or under utilized, or you might upgrade a user or group of users from a 10Mbps to a 100Mbps network connection.

There are many ways to design a network to accomplish good client/server response time. Figure 2.2 illustrates a sample network design capable of supporting both power users and occasional users.

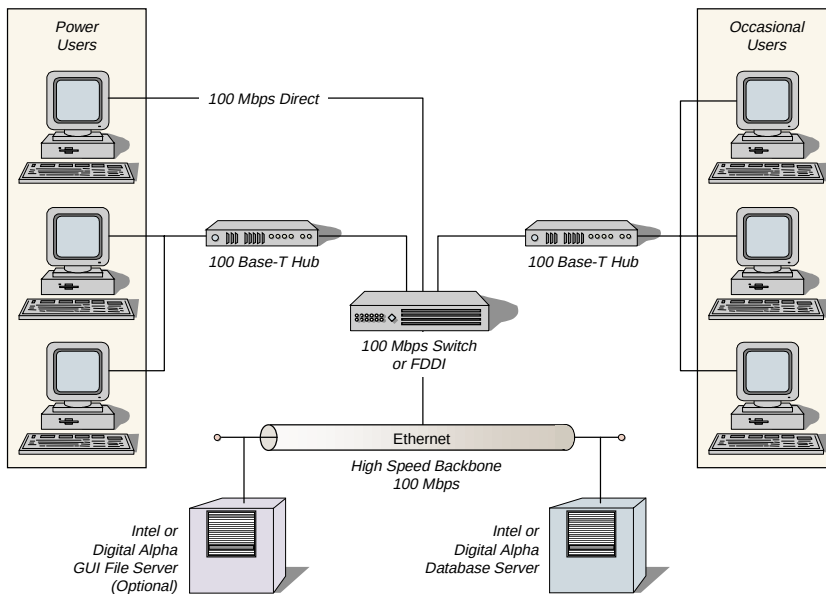


Fig. 2.2
Network Design
Example

This sample network configuration is a LAN design. Take additional care if you are planning to have GUI or character mode client/server users log in over a wide-area network (WAN). There are other solutions, such as WinFrame® by Citrix, that can provide acceptable client/server performance over a WAN.

Database Server Setup

▶ See “Loading Client Media” on page 47.

Installation Assumptions 30

Optimizing Windows NT Server 30

Loading Media and Setting Up the Database Server 32

Loading Service Pack Media 44

Modifying Hosts and Services Files 44

Performing Additional Optimization 46

Installation Assumptions

The installation procedures in this section assume that:

- Microsoft Windows NT Server 4.0 is installed on your server.
- TCP/IP is the network protocol.
- The required PROGRESS products are installed on the Windows NT Server: ProVISION, Enterprise DB Server, and Client Networking.
- You know the directory name where you will store the MFG/PRO for Windows NT Version 9.0 product.

The default directory is MFGNTSVR; you should choose a more descriptive name, such as MFGNTSVR90. These instructions refer to this directory as *InstallDir*.

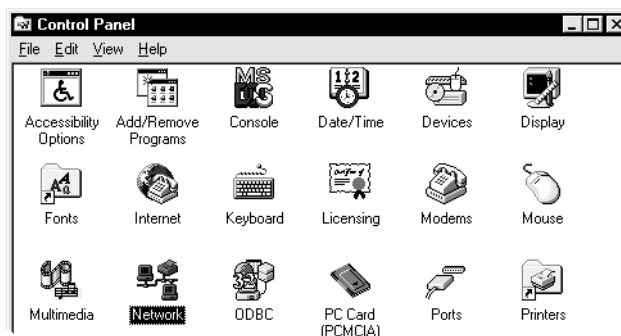
Before installing MFG/PRO for Windows NT, be sure you know the:

- Microsoft Windows NT Computer Name—referred to as the Host Name during the MFG/PRO installation.
- Directory name where you have installed PROGRESS 8.3 components. The PROGRESS installation default is C:\DLC.

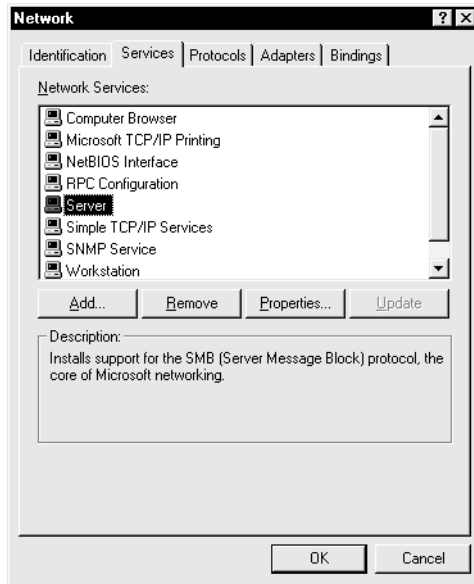
Optimizing Windows NT Server

Use the following steps to configure your server to maximize throughput for network applications. This procedure reserves NT resources for your RDBMS and is recommended for client/server applications.

- 1 Choose the Control Panel icon from the Start button's Settings menu.
- 2 From the Control Panel window, select Network.

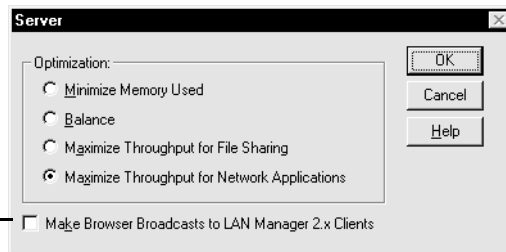


- 3 From the Network window, select the Services tab.
- 4 Highlight Server in the Network Services list and choose Properties.



- 5 In the Server window, select Maximize Throughput for Network Applications and make sure that Make Browser Broadcasts to LAN Manager 2.x Clients is not selected. Choose OK.

Select this check box only if there is a LAN Manager 2.x server on your network and you want that server to browse shared resources on this computer.



- 6 The Network window reappears. Choose Close.

- 7 At this point, the Network Settings Change window appears. You can restart your server now or wait until later.

Note Your changes do not take effect until you restart the server.



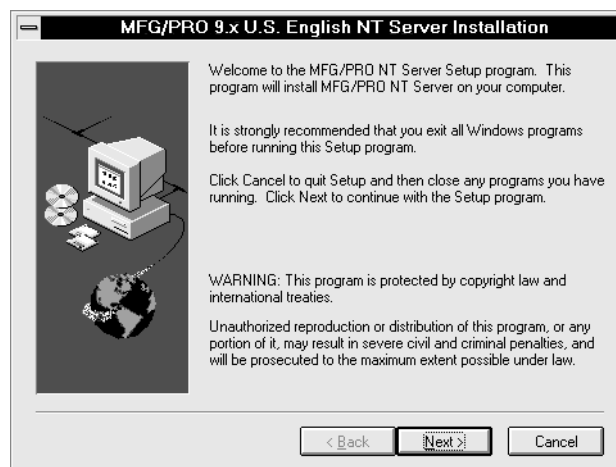
Loading Media and Setting Up the Database Server

You can start the installation from File Manager, Explorer, or the Start button. The copy process takes between 45 and 90 minutes, depending on your hardware configuration.

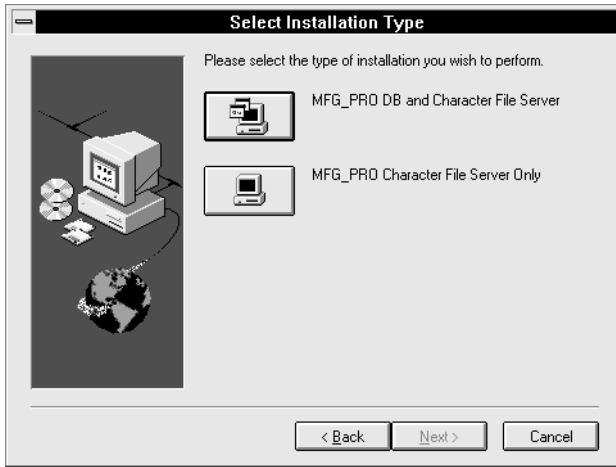
- 1 Insert the MFG/PRO for Windows NT Version 9.0 Server CD-ROM in the CD-ROM drive.
- 2 Run the `install.exe` program using File Manager, Explorer, or the Start button.

`CD-ROMDriveName:\install.exe`

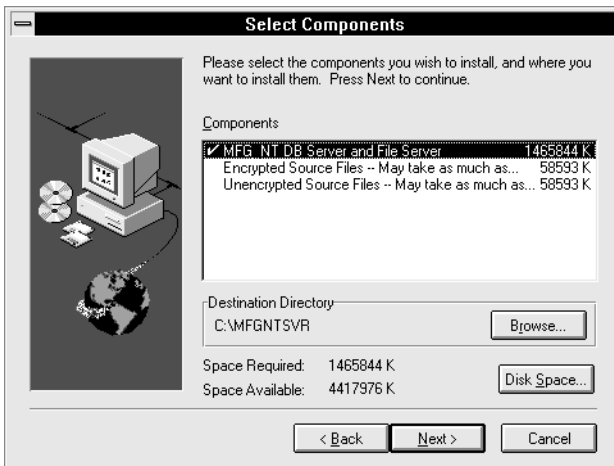
- 3 Choose Next when the Welcome message window appears.



- 4 From the installation type selection, choose the option MFG_PRO DB and Character File Server.



- 5 In the following window, choose the components to install by selecting the item and pressing Space Bar. Also specify the destination directory. Choose Next when you are finished.

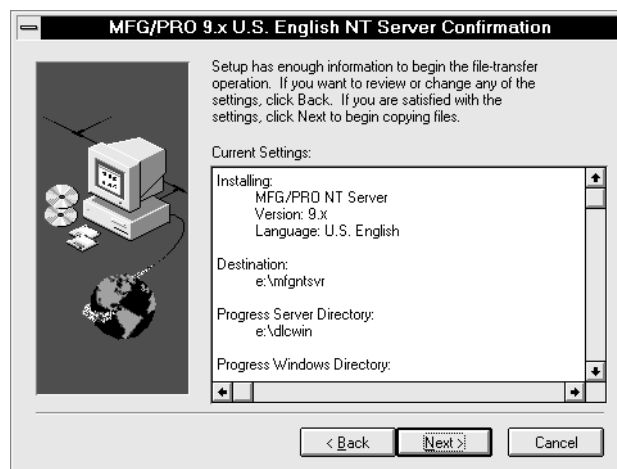


Destination Directory	You should specify a directory that identifies the MFG/PRO version; for example, C : \MFGNTSRV90. Choose Browse to select an alternate directory.
Disk Space	This button shows available disk space on any connected drive.

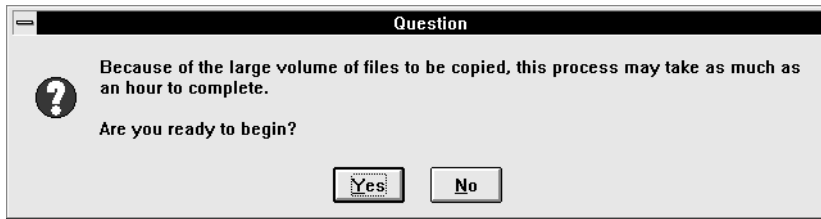
- 6 Specify your PROGRESS Windows NT Server directory when the following window appears. Use the Browse button to search for the directory. Choose Next to continue.



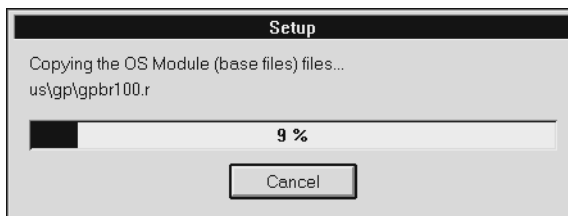
- 7 When the next window appears, specify the directory containing ProVISION. This is the same directory defined in the previous step. Choose Next to continue.
- 8 At the confirmation window, verify that the installation information is correct. Choose Next to begin installing, or choose Back to make changes.



- 9 Choose Yes at the following prompt when you are ready.



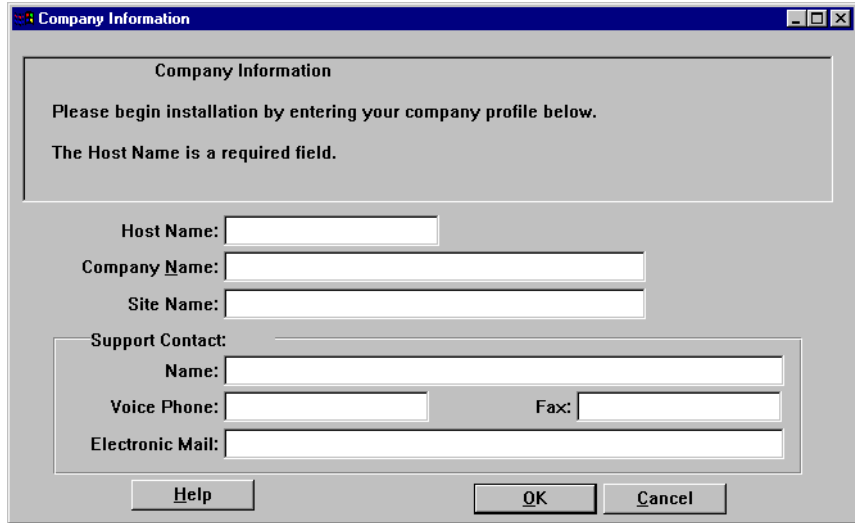
During the load, the following window appears.



Configure Server Database Sets

- 1 After the files are copied, the MFG/UTIL Company Information window appears. Enter at least the Host Name. (This is also called the Microsoft Windows NT Computer Name.)

Note The Host Name is used to start your MFG/PRO for Windows NT Version 9.0 database servers.



Company Information

Please begin installation by entering your company profile below.

The Host Name is a required field.

Host Name:

Company Name:

Site Name:

Support Contact:

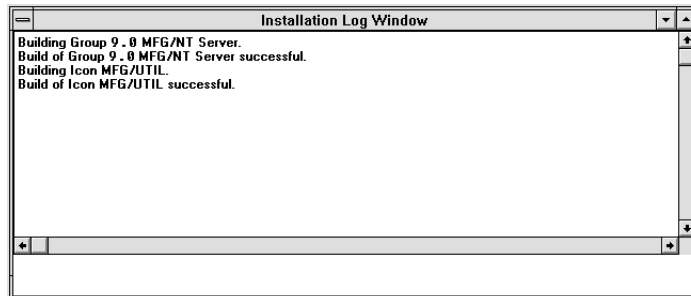
Name:

Voice Phone: Fax:

Electronic Mail:

Help OK Cancel

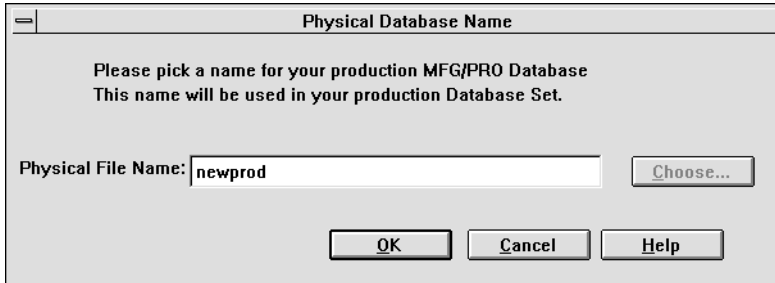
- 2 Choose OK. The Installation Log Window appears, behind the Physical Database Name window, with ongoing installation status information.



Installation Log Window

Building Group 9.0 MFG/NT Server.
Build of Group 9.0 MFG/NT Server successful.
Building Icon MFG/UTIL.
Build of Icon MFG/UTIL successful.

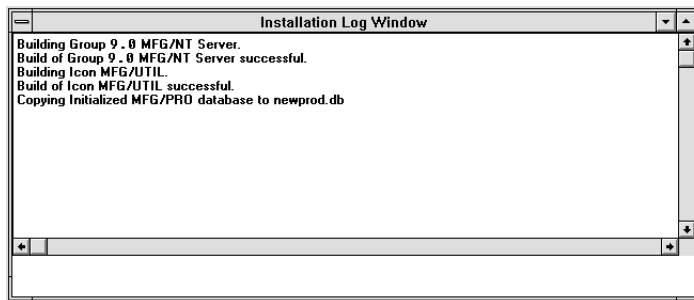
- 3 In the Physical Database Name window, enter the name of your new production database.



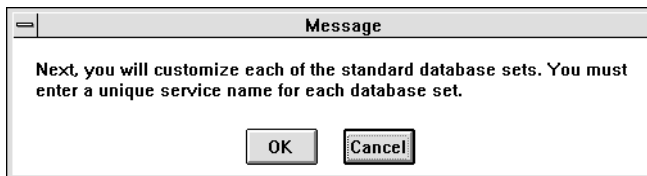
Note If you are performing an incremental conversion, you will not need a new production database because you still maintain your prior database. In this case, enter a “dummy” name. MFG/UTIL creates a new production database with this name; however, you will not use it. After the installation, you can delete the new production database.

For details, see Chapter 8, “Convert an Existing Database,” on page 107.

- 4 Choose OK. The Installation Log Window indicates the successful creation of the new production database.



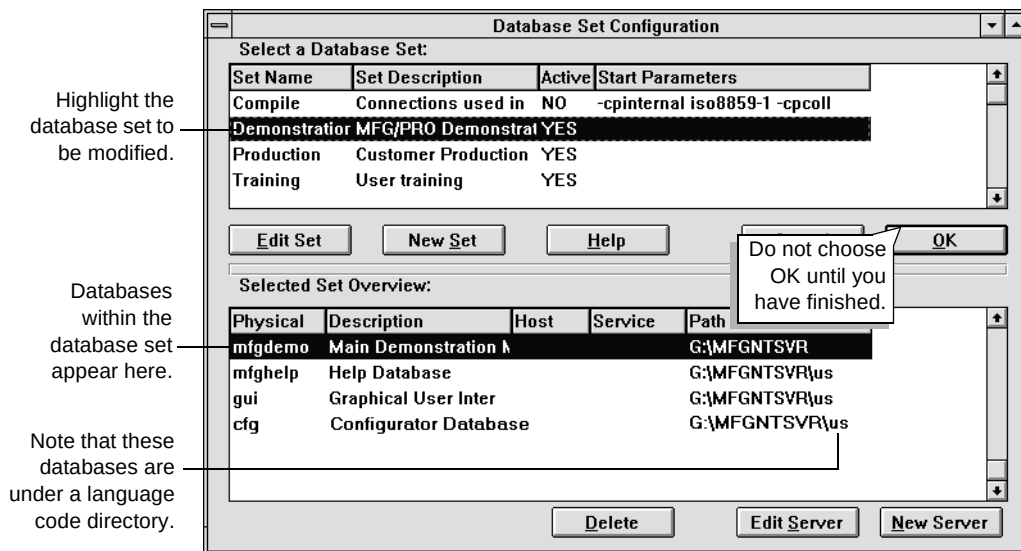
The following message appears along with the Installation Log Window.



5 Choose OK.

The Database Set Configuration window appears with Demonstration highlighted in the Select a Database Set portion of the window.

Note Because the steps are the same for all four database sets, only the Demonstration database is described in this document. You can use the following steps for Training, Compile, and Production database sets by replacing the information shown in the samples with the appropriate data.



6 If the Active flag in the Select a Database Set part of the Database Set Configuration window is set to Yes, MFG/UTIL will build a server start-up icon for that database set. To change the setting of the Active flag, double-click on the database set name. The Database Sets window displays. Click on the Active field to select Yes or No.

7 Configure the Demonstration database by selecting mfgdemo in the Database Set Configuration window and choosing Edit Server.

- a** At the Database Parameters window, move to the Service field and enter the service name for the mfgdemo database. Usually, it is the same name as the database—in this case, mfgdemo.

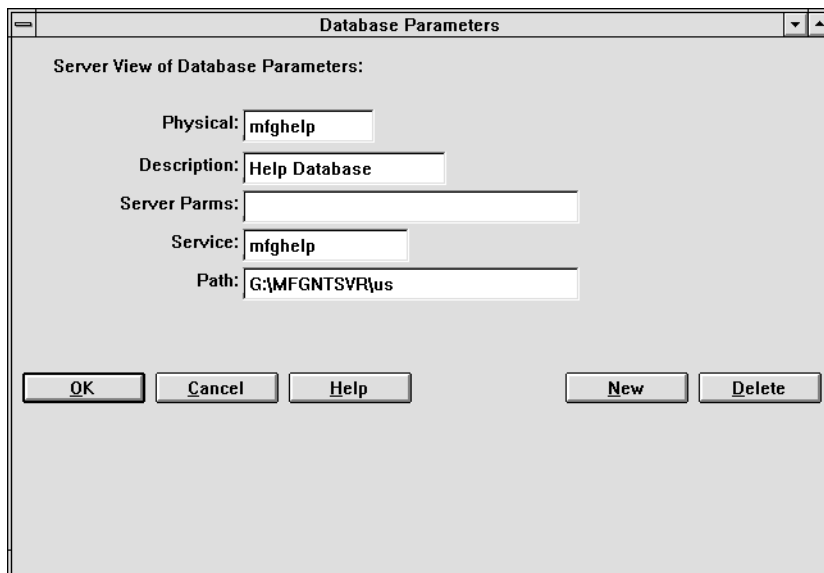
Note Any service names entered during the initial installation are added to the Windows NT services file by MFG/UTIL. You can print the mfgutil log file, located in the root directory, for a list of service names and TCP/IP socket numbers assigned by MFG/UTIL.

The screenshot shows a window titled "Database Parameters". Inside, under the heading "Server View of Database Parameters:", there are five labeled text input fields: "Physical:" containing "mfgdemo", "Description:" containing "Main Demonstration", "Server Params:" which is empty, "Service:" containing "mfgdemo", and "Path:" containing "G:\MFGNTSVR". At the bottom of the window, there are five buttons: "OK", "Cancel", "Help", "New", and "Delete".

- b** Choose OK.

8 Configure the Help database by selecting mfghelp in the Database Set Configuration window and choosing Edit Server.

- a** At the Database Parameters window, move to the Service field and enter the service name for the mfghelp database, usually mfghelp.



The screenshot shows a window titled "Database Parameters" with a tab labeled "Server View of Database Parameters:". Inside the window, there are five labeled text input fields: "Physical:" with the value "mfghelp", "Description:" with the value "Help Database", "Server Params:" which is empty, "Service:" with the value "mfghelp", and "Path:" with the value "G:\MFGNTSVR\us". At the bottom of the window, there are five buttons: "OK", "Cancel", "Help", "New", and "Delete".

- b** Choose OK.

- 9 **Configure the gui database** by selecting gui in the Database Set Configuration window and choosing Edit Server.
 - a At the Database Parameters window, move to the Service field and enter the service name for the gui database, usually gui.

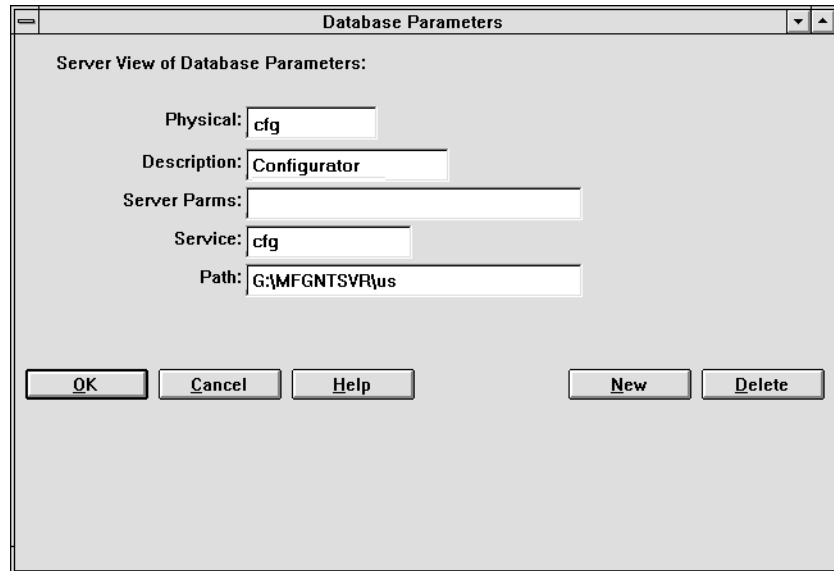
The screenshot shows a window titled "Database Parameters". Inside, under the heading "Server View of Database Parameters:", there are several labeled text input fields:

- Physical:** The text "gui" is entered.
- Description:** The text "Graphical User Interfac" is entered.
- Server Params:** This field is empty.
- Service:** The text "gui" is entered.
- Path:** The text "G:\MFGNTSVR\us" is entered.

At the bottom of the window, there are five buttons: "OK", "Cancel", "Help", "New", and "Delete".

- b Choose OK.

- 10 **Set up the Configurator database** by selecting cfg in the Database Set Configuration window and choosing Edit Server.
 - a At the Database Parameters window, move to the Service field and enter the service name for the Configurator database, usually cfg.



The screenshot shows a window titled "Database Parameters". Inside, under the heading "Server View of Database Parameters:", there are five labeled text input fields: "Physical:" with the value "cfg", "Description:" with the value "Configurator", "Server Params:" which is empty, "Service:" with the value "cfg", and "Path:" with the value "G:\MFGNTSVR\us". At the bottom of the window, there are five buttons: "OK", "Cancel", "Help", "New", and "Delete".

- b Choose OK.
- 11 After entering information for all the database sets you are configuring, choose OK in the Database Set Configuration window.

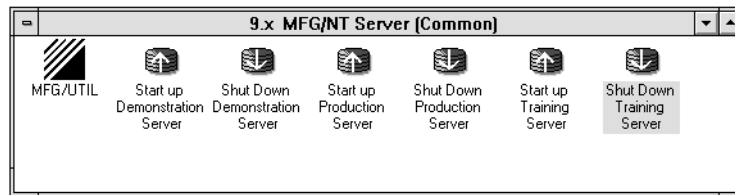
- 12** The Installation Log Window appends messages indicating steps completed by the installation program. Choose Close.



- 13** After MFG/UTIL closes, the following window appears; choose Finish.



- 14 Examine the MFG/NT Server icon window. It should contain server Startup and Shut Down icons for the database sets.



▶ For instructions, see “PROGRESS ProControl Utility” on page 197.

Note QAD *highly* recommends that you run the databases as registered Windows NT services. You can use the information stored in the server start-up batch files as examples of the parameters to enter in the ProControl configuration options.

Loading Service Pack Media

▶ See “Loading Service Pack Media” on page 8.

If your release of MFG/PRO has a Service Pack, use the installation instructions provided with the Service Pack Server media to load and update your new MFG/PRO databases.

Modifying Hosts and Services Files

If this is the first installation of MFG/PRO on your Windows NT Server, you must tailor your `hosts` and `services` files to enable database connections. MFG/UTIL updated your `services` file during installation. However, if you add any new services names after installation, you must modify your `services` file manually.

For TCP/IP client connections, each client PC must have the `services` file updated to match the service name and port numbers assigned by MFG/UTIL during the installation process. In addition, each client PC must have the server name and TCP/IP address added to its `hosts` file.

Modify the Hosts File on the Server

Note You do not need to modify the `hosts` file if you are using DNS or WINS name resolution on your network.

The `hosts` file can be found in the following sub-directory on the Windows NT Server:

`%SystemRoot%\NTInstallDir\SYSTEM32\DRIVERS\ETC`

You must enter the host name specified during the MFG/PRO for Windows NT Version 9.0 installation and the user-assigned IP address. (See your network administrator for IP address assignments.) You must enter your Microsoft Windows NT Computer Name and IP address for each NT Server. The following `hosts` file example shows `qad_nt_server` as the computer name with an IP address of 200.100.100.004. The `hosts` file information must be updated on each client PC.

IP Address	Host Name	Comment
127.0.0.1	localhost	
200.100.100.001	perf_lab1	
200.100.100.004	qad_nt_server	# MFG/PRO NT DB Server

Modify the Services File on the Server

MFG/UTIL updated your `services` file during installation. However, if you add any new services names after installation, you must modify your `services` file manually. The `services` file must include all the database services names as specified in the MFG/UTIL database set configuration.

Note The service name must be limited to 16 characters.

The `services` file is in the same sub-directory as the `hosts` file. You can use any unused service port numbers. The following table shows example services names and port numbers for the demonstration database set.

Service Name	Port No./Protocol	Comment
mfghelp	5501/tcp	# Help Database
mfgdemo	5511/tcp	# Demonstration Database
gui	5521/tcp	# GUI Database

Note To allow for PROGRESS processing, make sure there are at least five numbers between each port number. The more users you expect to have, the more numbers you should leave open.

Modify the Hosts and Services Files on Client PCs

For each client workstation to be configured, you must edit the `hosts` and `services` files. The hosts and services names and TCP/IP addresses and port numbers must match those specified when you installed the MFG/PRO for Windows NT Version 9.0 server.

Performing Additional Optimization

After the installation, you should perform some additional steps to optimize your system performance. The main optimization steps are outlined below.

Note If you are performing a database conversion, follow the conversion instructions before you optimize your system.

- 1 Set up your production database as a multi-volume database according to the directions in the PROGRESS documentation. This step is optional but highly recommended.
- 2 If you create a multi-volume database, spread your database extents across multiple disk drives. See “Disk Layout” on page 25 for a recommended configuration.
- 3 Move the before-image (`.bi`) file of your production database to a separate disk drive.
- 4 Use MFG/UTIL or ProControl to modify the start-up parameters for your servers. Include the necessary parameters for a multivolume environment, as described in the PROGRESS documentation.

For example, you may need the `-g` parameter if your `.bi` file is on a separate disk.

► For details, see “Before-Image File Relocation” on page 26.

Loading Client Media

This chapter explains how to load Windows GUI and Windows character client files on a file server.

Note You should load the client software—either GUI, character, or both—on a file server separate from the database server, especially under heavy client activity.

Loading Windows GUI Client Files on a File Server **48**

Loading Windows Character Client Files on a File Server **52**

Loading Service Pack Client Media **55**

Routing Maintenance (Main Screen)

Routing Code:	10-15000	NONAD (75) CDR IN:
Operation:	20	
Standard Operation:	1030	INSPECTION, ALL SITE
Work Center:	Machine	
Description:	INSPEC PER PROX-000	
Machines per Op:	1	Allocation:
Overlap Units:	1	
Queue Time:	1.0	
Wait Time:	0.0	
Setup Time:	0.0	

Route by Production Bldg

Loading Windows GUI Client Files on a File Server

Before you install the client files from your CD-ROM, you should:

- Know the drive and directory name where you will store the MFG/PRO for Windows files.
- Log on to your network with write permission for this directory.

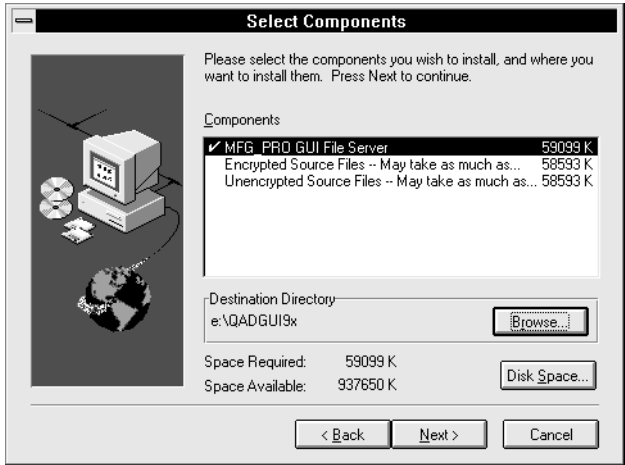
- 1 Insert the MFG/PRO for Windows CD-ROM in the CD-ROM drive of the file server.
- 2 Run the `install.exe` program using File Manager, Explorer, or the Start button.

CD-ROMDriveName:\install.exe

- 3 Choose Next when the welcome message window appears.

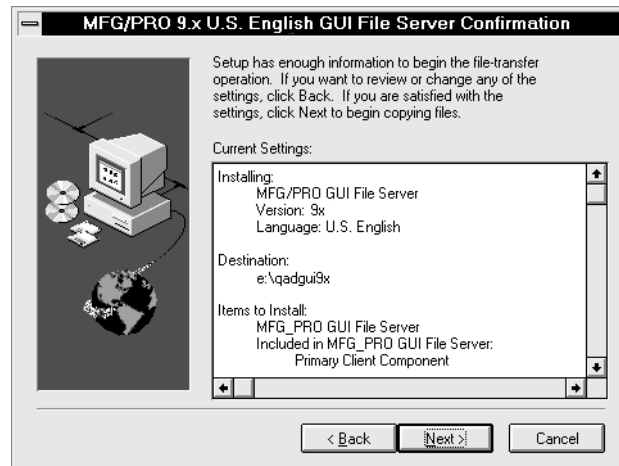


- 4 In the following window, choose the components to install by selecting the item and pressing Spacebar. Also specify the destination directory. Choose Next when finished.

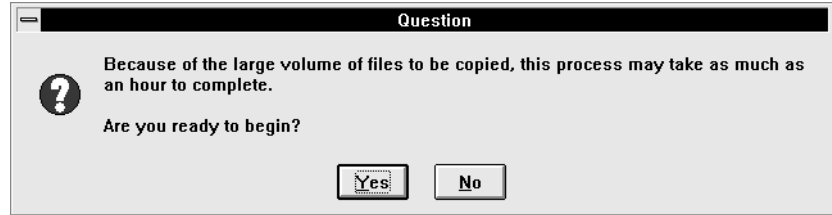


Destination Directory	You should specify a directory that identifies the MFG/PRO version; for example, <code>C:\mfpggui90</code> . Choose Browse to select an alternate directory.
Disk Space	This button shows available disk space on any connected drive.

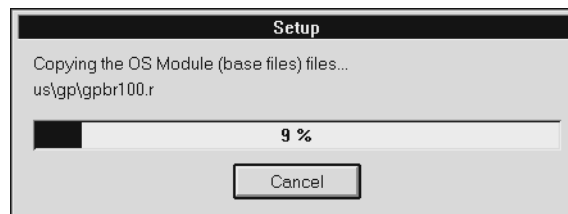
- 5 At the confirmation window, verify that the installation information is correct. Choose Next to begin installing, or choose Back to make changes.



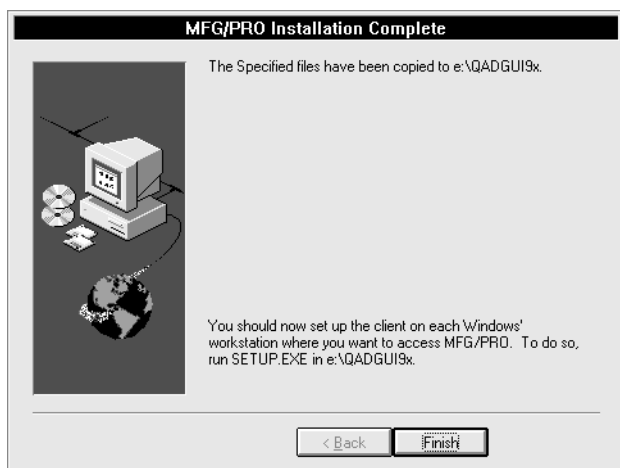
- 6 Choose Yes at the following prompt when you are ready.



During the load, the following window appears.



- 7 After the files are copied, the following window appears; choose Finish.



- 8 If you have multiple languages, repeat the preceding steps for each language, starting with step 1. However, note the following differences.
- Specify a different installation directory; for example, qadfrgui (where fr is the French language code).
 - When the second language is loaded, open File Manager or Windows Explorer and find the two-letter language code directory under the new installation directory. For example, fr is for French.
 - Copy the language code sub-directory into the first installation directory. The language directories must be on the same directory level.

Loading Windows Character Client Files on a File Server

Loading Windows character client media is optional, because it is automatically loaded along with the database server media. However, to improve performance under heavy client activity, you should load Windows character client media on a separate file server machine.

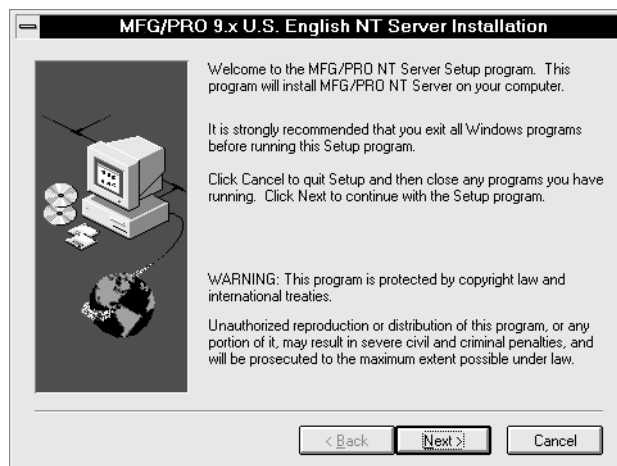
Before you install the client files from your CD-ROM, you should:

- Know the drive and directory name where you will store the MFG/PRO for Windows files.
- Log on to your network with write permission for this directory.

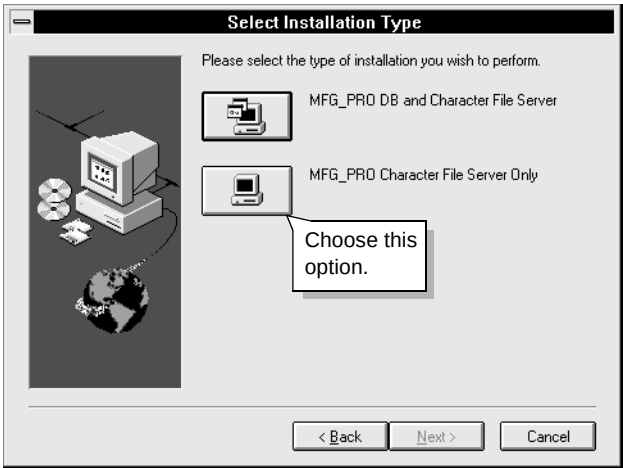
- 1 Insert the MFG/PRO for Windows NT Version 9.0 Server CD-ROM in the CD-ROM drive of the file server.
- 2 Run the `install.exe` program using File Manager, Explorer, or the Start button.

CD-ROMDriveName:\install.exe

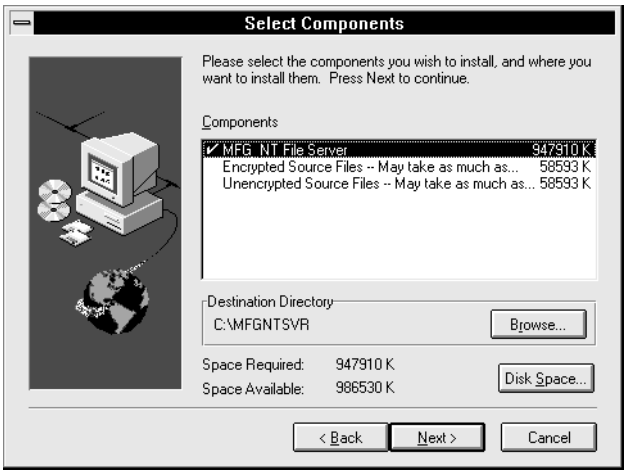
- 3 Choose Next when the Welcome message window appears.



- 4 From the installation type selection, choose the option MFG_PRO Character File Server Only.

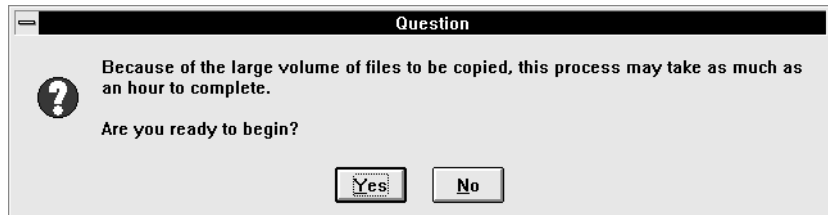


- 5 In the following window, choose the components to install by selecting the item and pressing Spacebar. Also specify the destination directory. Choose Next when finished.

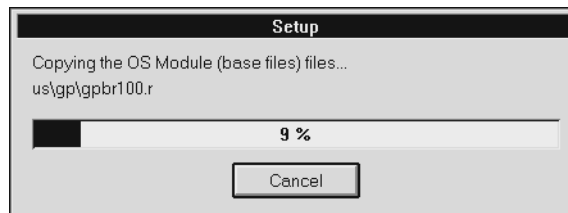


Destination Directory	You should specify a directory that identifies the MFG/PRO version; for example, C:\mfgch90. Choose Browse to select and alternate directory.
Disk Space	This button shows available disk space on any connected drive.

- 6 At the confirmation window, verify that the installation information is correct. Choose Next to begin installing or Back to make changes.
- 7 Choose Yes at the following prompt when you are ready.



During the load, the following window appears.



- 8 After the files are copied, the following window appears; choose Finish.



- 9 If you have multiple languages, repeat the preceding steps for each language, starting with step 1. However, note the following differences.
- Specify a different installation directory; for example, mfgchfr (where fr is the French language code).
 - Once the second language is loaded, open File Manager or Windows Explorer and find the two-letter language code directory under the new installation directory. For example, fr is for French.
 - Copy the language code sub-directory into the first installation directory. The language directories must be on the same directory level.

Loading Service Pack Client Media

If your MFG/PRO release has a Service Pack, after installing your MFG/PRO client files, use the installation instructions provided with the Service Pack media to load client update files on your file server.

▶ See “Loading Service Pack Media” on page 8.

Note Because MFG/PRO Windows character client code is the same code used for batch processing, the Service Pack update files for Windows character clients are contained on the Service Pack Server media.

CHAPTER 5

Windows GUI and Character Client Setup

This chapter explains how to set up either the Windows GUI or Windows character clients for MFG/PRO for Windows NT. You can choose to set up either type of client; the same instructions apply to both setups.

Configuring Windows GUI or Character Clients **58**

Starting and Registering MFG/PRO **70**

Using Express Setup for Client PCs **72**

Changing a Client's PROPATH After Setup **73**

Additional Windows Character Client Setup **74**

The screenshot displays the 'Routing Maintenance (Main Screen)' window in the MFG/PRO software. The window title is 'routing91.p'. It contains a table with the following data:

Routing Code	10-15000	NONAD (75) CDR IN
Operation	20	
Standard Operation		
Work Center	1030	INSPECTION, ALL SITE
Machines		
Description	INSPEC PER PROX-000	
Machines per Op	1	Attention: P...
Overlap Units	1	
Queue Time	1.0	
Wait Time	0.0	
Setup Time	0.0	

At the bottom, it says 'Route by Production Build Control'.

Configuring Windows GUI or Character Clients

After installing the client files on the file server, you must configure each client PC. The goal of configuration is to copy needed files onto the client PC and create start-up icons. Creating the start-up icons requires setting up database sets.

▶ See “Database Sets” on page 13 for more information.

Once you define a database set for the first time, MFG/UTIL gives you the option of storing your settings on the file server so that subsequent client PC installations can reuse the same settings. This feature is called *express setup*.

Note Express setup works only for clients of the same type. For example, you cannot use the settings for a Windows GUI client to set up character clients. Each client type has its own express setup definition file.

If you encounter an error when running MFG/PRO or need to change the database sets after you first define them, choose Any Database Set from the MFG/UTIL Configure menu, make your changes, and choose Generate User Startup from the Scripts menu.

Note These steps assume you have loaded the Windows client programs onto a file server—not on each client PC.

Setup Prerequisites

Before setting up Windows clients, verify that you have met the following prerequisites.

- You have met the hardware requirements for Windows clients.
- You have set up hosts and services files on the database server and client machines.
- Your network is operating.
- You have loaded the MFG/PRO Windows GUI or character client programs. It is recommended that you load them onto a file server.

- You have installed PROGRESS client software on each client PC or accessible network drive. The required products are Query, Client Networking, and, if you have Windows character clients, the Win32 Intel Character Client.
- You have mapped network drives for any components installed on a file server. Networked components may include PROGRESS, MFG/PRO GUI, or MFG/PRO Character media.
- The first client PC has write access to the file server installation directory. Write access is needed to use the Express Setup feature.
- If you have a DEC Alpha server, you need to set up a client to perform system administration. In this case, the client must have PROGRESS ProVISION and must have share access to the MFG/PRO installation directory on the DEC Alpha server.

Client Setup

- 1 Start on any PC connected to the network file server. For Windows GUI clients, verify that your display resolution is no greater than 800 x 600dpi. If you are using a higher resolution, follow the procedures for your video card to change the resolution to 800 x 600dpi.

- 2 Start the GUI or character client `setup.exe` program using File Manager, Explorer, or the Start button.

For Windows GUI clients, use the following command, where *WinInstallDir* is the directory containing Windows GUI client media.

InstallDrive:\WinInstallDir\setup.exe

For Windows character clients, use the following command, where *CharInstallDir* is the directory containing character client media.

InstallDrive:\CharInstallDir\charactr\setup.exe

- 3 Choose Next when the welcome message window appears.

- 4 Accept the default working directory, QADCLI, or specify a different directory. Choose the Browse button to select an alternate directory. Choose Next to continue.



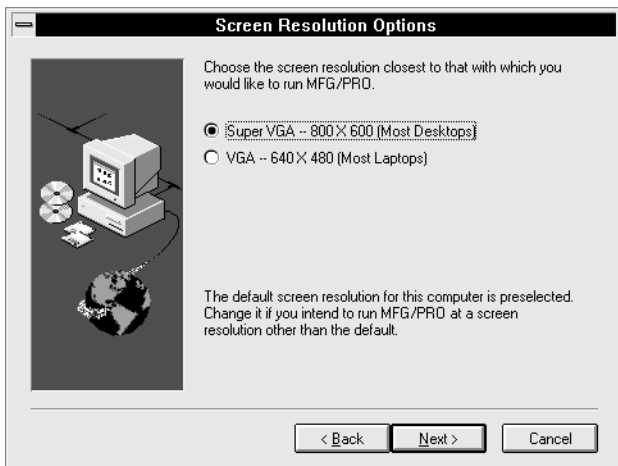
Note If you are installing *both* Windows GUI and character clients, ensure each destination directory is unique. For example, use `qadwinc1` for Windows GUI clients and `qadchrc1` for Windows character clients.

- 5 Specify the appropriate PROGRESS client directory for either Windows GUI or character clients. Use the Browse button to select an alternate directory. Choose Next to continue.

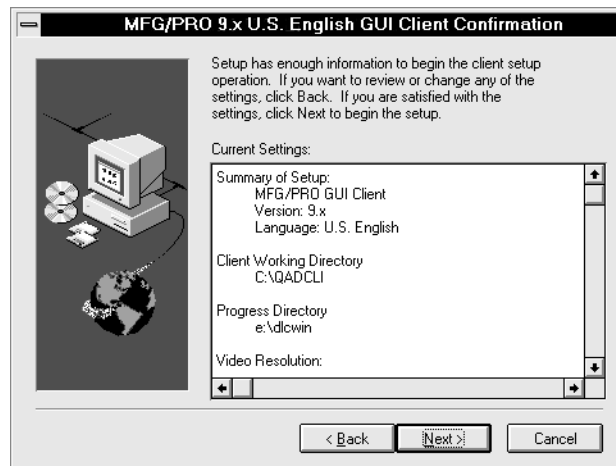
Note The example illustration is for Windows GUI clients.



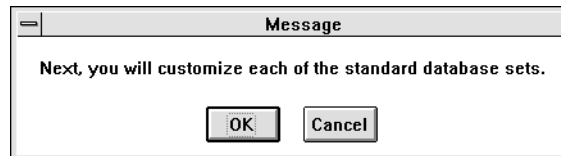
- 6 If you are setting up a Windows GUI client, you are prompted for the screen resolution. Select the display resolution of the PC and choose Next. If you are setting up a Windows Character client, skip this step.



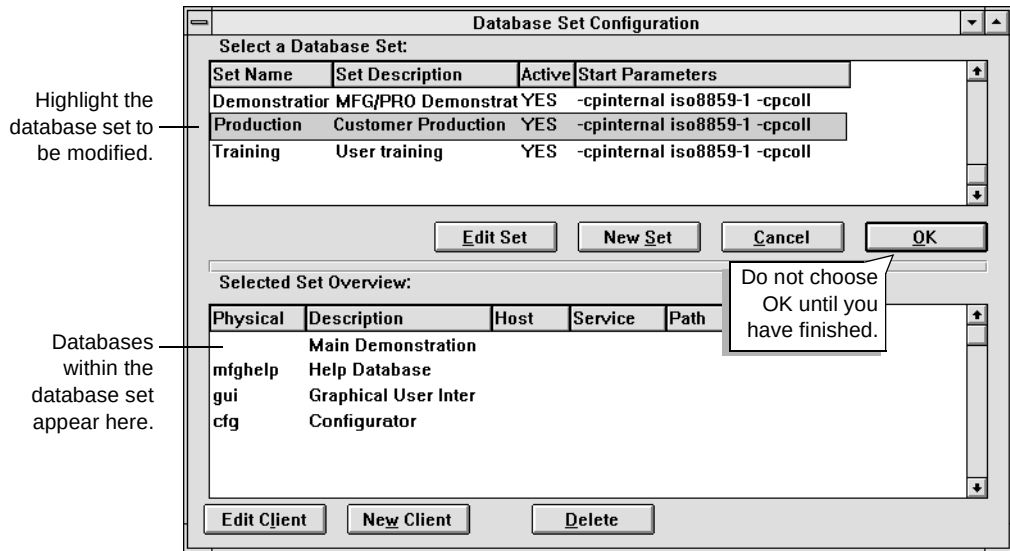
- 7 At the confirmation window, verify that the installation information is correct. Choose Next to begin installing or Back to make changes.



- 8 Choose OK when the following message appears.



- 9 When the Database Set Configuration window appears, review the following notes to become familiar with this window.



- 10 If the Active flag in the Select a Database Set portion of the Database Set Configuration window is set to Yes, MFG/UTIL will build a start-up icon for that database set. To change the setting of the Active flag, double-click on the database set name. The Database Sets window displays. Click on the Active field to select Yes or No.
- 11 Highlight the Production database set. The global parameters for this set appear to the right. Normally, you do not need to change them; but you can by choosing Edit Set.

12 Configure the Production database by selecting the first database—the name is blank—from the Selected Set Overview list and choosing Edit Client.

- a** When the Client View of Database Parameters window appears, complete the fields using the table and the example picture that follow.

Field	Enter
Physical:	Enter the physical name of your database. If you are performing an incremental conversion, enter the name of your existing production database.
Logical:	Do <i>not</i> change the logical name for any database. It should be blank for the production, demonstration, and training databases.
Description:	Enter a different description if you want.
Connect Parms:	Enter any PROGRESS connection parameters you want that apply specifically to client connections to this database.
Connection Type:	Choose the Client/Server option.
Host:	Enter the host name of the database server.
Service:	Enter the Service parameter, to correspond to an entry in your services files. For the entries in your client services file, you must make the entries with a text editor; MFG/UTIL does not change this file.

Window 1

Client View of Database Parameters:

Physical: mfgpro

Logical:

Description: Main Production

Connect Parms:

Connection Type: ClientServer

Host: x_server

Service: mfgpro

Example Physical database name.
Leave the Logical field blank for the production database.

OK Cancel Help New Delete

- b** Choose OK.

13 Configure the Help database by selecting mfghelp in the Database Set Configuration window and choosing Edit Client.

- a** In the Client View of Database Parameters window, complete the Host and Service fields. The Service name must correspond to an entry in your services file. A sample window of a completed help database entry follows.

Window 1

Client View of Database Parameters:

Physical: mfghelp

Logical: qadhelp

Description: Help Database

Connect Params:

Connection Type: ClientServer

Host: x_server

Service: mfghelp

OK Cancel Help New Delete

- b** Choose OK.

14 Configure the gui database by selecting gui in the Database Set Configuration window and choosing Edit Client.

- a** In the Client View of Database Parameters window, complete the Host and Service fields. The Service name must correspond to an entry in your services file. A sample window of a completed help database entry follows.

Window 1

Client View of Database Parameters:

Physical:

Logical:

Description:

Connect Params:

Connection Type:

Host:

Service:

- b** Choose OK.

15 Set up the Configurator database by selecting `cfg` in the Database Set Configuration window and choosing Edit Client.

- a** In the Client View of Database Parameters window, complete the Host and Service fields. The Service name must correspond to an entry in your services file. A sample window of a completed Configurator database entry follows.

- b** Choose OK.

16 You can also add other database connections to the set by choosing the New Client button.

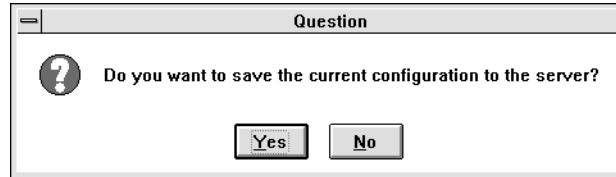
The following table shows an example of a completed database set.

Database	Physical Name	Logical Name	Service Name
Production	mfgpro	<i>leave blank</i>	mfgpro
Help	mfghelp	qadhelp	mfghelp
GUI	gui	qadgui	gui
Configurator	cfg	qadcf	cfg

17 If you want to configure a Demonstration or Training database set, highlight the set name in the Database Set Configuration window and complete the parameters as described in the preceding steps.

- 18** When you have entered information for all the database sets you are installing, choose OK in the Database Set Configuration window.

The following message window appears.



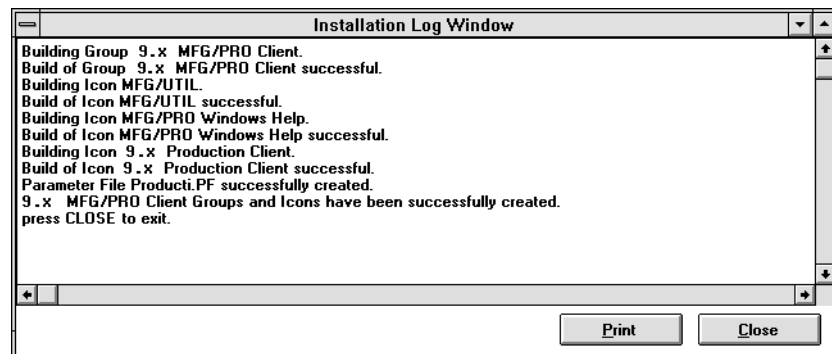
▶ See “Using Express Setup for Client PCs” on page 72 for more information.

- 19** Choose Yes, to save the current configuration to the file server. This enables you to use express setup on subsequent clients.

If you choose No, the installation does not save the current configuration to the file server; however, it will be saved to the client working directory of this PC.

Note If an error occurs, verify your write permission to the file server.

The Installation Log Window appends messages indicating steps completed by the installation program.

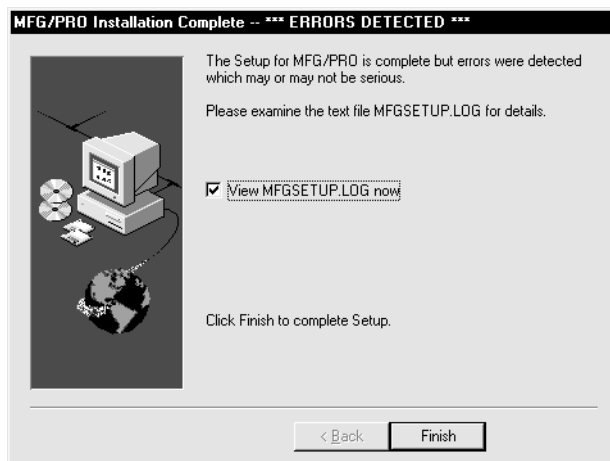


- 20 Choose Close in the Installation Log window. When the following window appears, choose Finish.



If Files Are Missing

- 1 If the installation program encounters errors, the following window appears. You may, for example, have a permissions problem.



- 2 In this case, choose Finish. The `mfgsetup.log` file displays in the Windows Notepad. Examine the log file, correct the problem, and rerun the setup program.

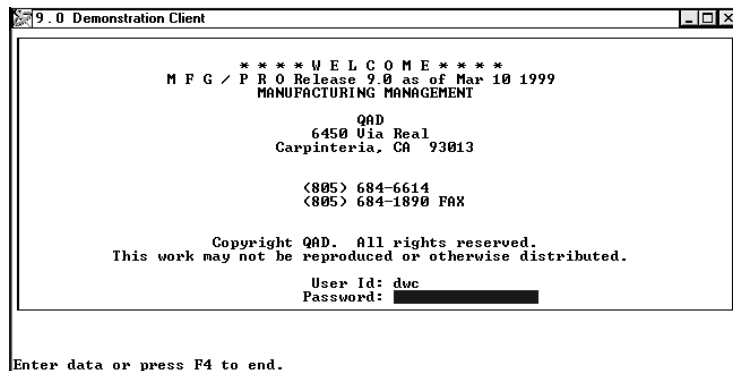
Starting and Registering MFG/PRO

- 1 Before you test the client PC, ensure that the database servers are started for the chosen database set.
- 2 Click the MFG Production, Demo, or Training icon in the MFG/PRO program group. The MFG/PRO Sign On window appears.

Windows GUI
client example



Windows
character client
example



- 3 Choose OK or Exit.

Registering the License

You must register your MFG/PRO license the first time you log on. These steps require that you have the license code sheet included with your release media.

▶ For background information on MFG/PRO licensing, see “User License Overview” on page 15.

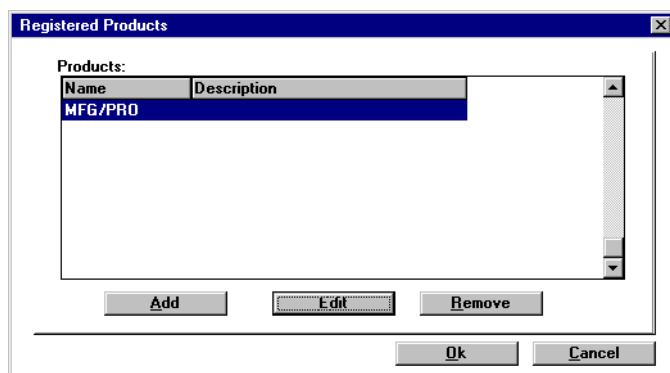
1 At the MFG/PRO Sign On window, press Return.

2 At the License Details window, choose Register.

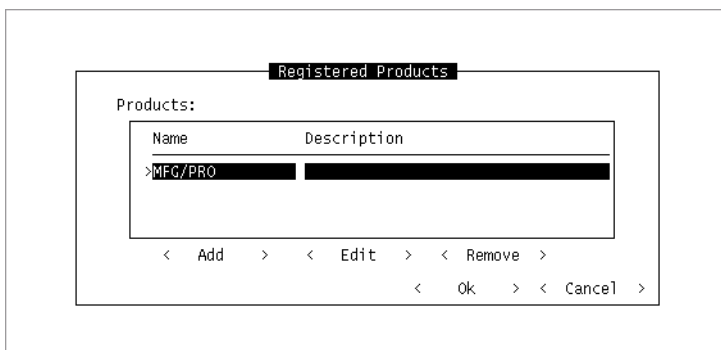
Note For Windows Character clients, to choose a button, press Tab until it is selected, and then press Enter.

3 At the Registered Products window, choose Add.

For Windows GUI clients, the following window displays.



For Windows character clients, the following screen displays.



▶ See step 2 on page 70.

- 4 In the Add Product window, complete the License Code fields by entering the codes from the license code sheet included with your release media. Choose Ok.
- 5 When the Registered Products window reappears, choose Ok. Your license code and details display in the License Detail window.
- 6 Choose Ok at the License Detail window. You are returned to the operating system. To begin a session, restart MFG/PRO and sign on.

Note If you need to modify your license code, use License Registration (36.16.10).

Using Express Setup for Client PCs

The subsequent client installations can use an express setup, based on the settings of the first client installation. This feature is enabled if you answered Yes to the following prompt, just after completing the database set:

Do you want to save the current configuration to the server?

If you answered Yes, the first client settings are stored on the file server so that the other clients can copy them. If necessary, however, you can change the settings on the file server to set up some client PCs differently.

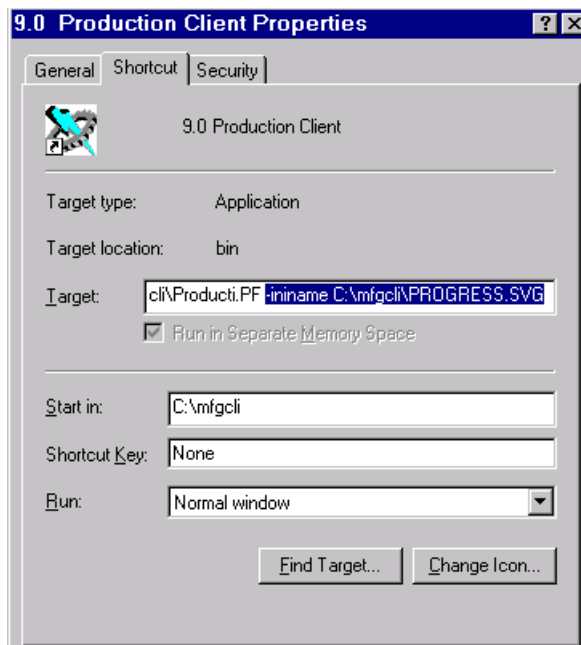
- 1 Repeat steps 1 through 8, starting on page 59, for each subsequent client PC you want to set up. MFG/UTIL completes the rest of the client setup automatically.
- 2 If you want to use different settings than the first client PC, do the following:
 - a Start MFG/UTIL from any client PC by clicking the MFG/UTIL icon.
 - b Select the Configure menu and choose Any Database Set to open the Database Set Configuration window.

- c In the Database Set Configuration window, make your changes.
- d Select the File menu and choose Save Default mfgutil.ini. MFG/UTIL stores your changes in the client administration directory on the file server, as well as on the current machine. Subsequent clients you set up will use these same settings.

Changing a Client's PROPATH After Setup

If you want to modify the PROPATH setting for MFG/PRO clients after installation, complete the following instructions.

- 1 Right-click the client icon and choose Properties.
- 2 From the Properties window, choose the Shortcut tab.



- 3 In the Target field, use the -iname parameter to locate the client's initialization file; for example, PROGRESS.SVG.
- 4 Open the initialization file in a text editor.
- 5 Modify the PROPATH setting in the [Startup] section of this file.

Additional Windows Character Client Setup

This section includes additional information on Windows character clients.

Page Output

The MFG/PRO Version 9.0 Windows character client will support page output using existing routines and the PROGRESS Quoter function. To use one of the MFG/PRO page output destinations, you must modify the PC operating system path to include the dlc and dlc\bin locations of your PROGRESS 8.3 installation. For example:

```
c:\dlc83;c:\dlc83\bin
```

Windows Character Client Function Keys

The MFG/PRO Version 9.0 Windows character client function key commands are different than the Windows GUI client function keys. The main character-based commands are shown in the following table.

Command	Name	Description
F1	Go	Moves to the next frame
F2	Help	Opens a look-up browse. Press a second time to open online help.
F4 or Esc	End	Exits a frame, program, or menu. NOTE: To exit a character client session, you must press F4 from the MFG/PRO Main Menu. You cannot simply close the window.

For a complete list of commands, see the character keyboard commands documented in the *MFG/PRO User Interface Guide*.

Any commands that use the Esc key and a letter are for UNIX character clients only; for example, Esc-m to access menus. In most cases, use the Alt key or the mouse in place of these commands.

CHAPTER 6

Multiple Language Setup

This chapter explains the tasks needed to set up an additional language for MFG/PRO. Repeat all the tasks in this chapter for each additional language. For an overview of the multiple language environment, see “Multiple Language Installation Overview” on page 9.

Multiple Language Assumptions **76**

Loading an Additional Language on the Database Server **76**

Loading an Additional Language for Windows Clients **78**

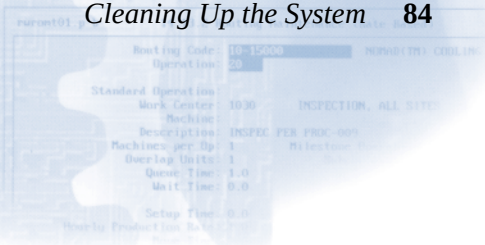
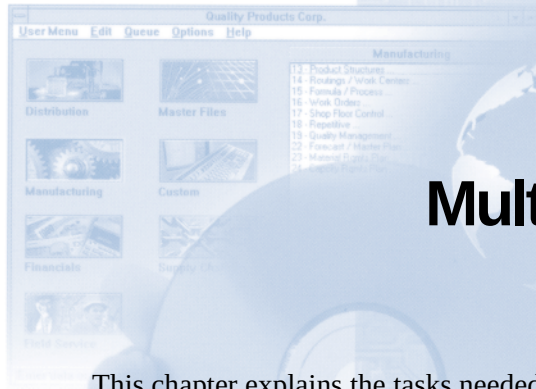
Updating Translated System Data **79**

Replacing the GUI Database **81**

Adding a Compile Database Set **82**

Setting Up Users and Testing the Language Installation **84**

Cleaning Up the System **84**



Multiple Language Assumptions

It is assumed that:

- The installed languages all share the same codepage family.
- There is one production, help, gui, and cfg database shared by all language sessions.
- You have completed all MFG/PRO installation tasks for the first language.

Loading an Additional Language on the Database Server

Complete these steps to load the language-specific programs onto the server.

♦ See “Disk Space Requirements” on page 23.

- 1 Verify that you have adequate disk space on the database server.
- 2 To avoid overwriting the settings for your existing server start-up and shutdown icons, you must change the name of the existing MFG/PRO icon folder.

For example, add the language code to the folder name. Typically, the folder is located in the following directory.

`\NTSystemDir\Profiles\All Users\Start Menu\Programs`

- 3 Insert the language version of the MFG/PRO for Windows NT Version 9.0 Server CD-ROM in the CD-ROM drive.
- 4 Run the `install.exe` program using File Manager, Explorer, or the Start button.

`CD-ROMDriveName:\install.exe`

- 5 Choose Next when the Welcome message window appears.
- 6 From the installation type selection, choose the option MFG_PRO DB and Character File Server.

- 7 In the selection window, choose the components to install and specify a temporary destination directory for the new language. For example, in the following temporary installation directory, fr is for French.

DriveName:\frInstallDir

Warning This directory must be different from the first language installation directory or you may encounter errors. This temporary directory is removed when the additional language installation is complete and tested.

For details, see
“Cleaning Up the
System” on
page 84.

- 8 Choose Next when finished.
- 9 Specify your PROGRESS Windows NT Server and ProVISION directories when prompted. Choose Next to continue.
- 10 At the summary window, verify that the installation information is correct. Choose Next to begin installing or Back to make changes.
- 11 Choose Yes at the confirmation prompt.
- 12 When the MFG/UTIL Company Information window appears, choose Cancel. Also cancel all subsequent windows. This part of the installation creates databases and start-up icons, which were already created when you installed the first language.
- 13 Once the second language is loaded, open File Manager or Windows Explorer and find the two-letter language code directory under the new installation directory. For example, fr is for French.

DriveName:\frInstallDir\fr

- 14 Copy the language code sub-directory into your first installation directory. The language directories must be on the same directory level; for example, *InstallDir\us* and *InstallDir\fr*. The us directory is for American English and was the first installation directory.

- 15 Determine which language installation has the most up-to-date data by comparing the date of the `mnt_det.d` file in the `mfg` sub-directory of the first language with the date of the same file in the second language installation.
- 16 If the data from the additional language is the most up-to-date, you must copy the following sub-directories to overwrite the data in the first language installation. However, if the data from the *first* language is more up-to-date, you can skip this step.

Language Sub-Directories

- `gui`
- `mfg`

Note You may want to make back-up copies of these directories before you copy over them.

Loading an Additional Language for Windows Clients

To load language-specific programs for Windows GUI and Character clients onto the file server, repeat the instructions in “Loading Client Media” on page 47.

However, note the following differences.

- Specify a different installation directory; for example, `qadfrgui` (where `fr` is the French language code).
- Once the second language is loaded, open File Manager or Windows Explorer and find the two-letter language code directory under the new installation directory; for example, `qadfrgui\fr`.
- Copy the language code sub-directory into the first installation directory. The language directories must be on the same directory level; for example, `InstallDir\qadgui` and `InstallDir\qadfrgui`.

Windows GUI and Character Client Setup

You do not need to run the `setup.exe` program for additional languages, because the start-up icon for the first language will work for all other languages, assuming they share the same codepage family.

Updating Translated System Data

To complete the installation of an additional language, you must update the system data—including online help—with translated data.

If you have custom changes to menu and message settings, be aware that this process overwrites these changes. If you want these changes available in your updated system, you must reenter them. For this reason, you may want to run the update program, `mgdload`, in report mode first.

To run `mgdload`, use the following instructions.

Loading Menus and Messages

- 1 Ensure that no other users are on the system.
- 2 Start a MFG/PRO Version 9.0 session for the first language.
- 3 At the Main Menu, enter:

`mgdload.p`

Warning `mgdload.p` overwrites custom changes to menu and message settings. You must reenter these changes after the program is run.

- 4 When `mgdload` opens, complete the fields according to the following table.

Note To run `mgdload` in report mode, enter Yes in the Count Only field.

Field	Enter
Input Directory	Enter your Version 9.0 installation directory followed by the <code>mfg</code> sub-directory.
Load <code>mnd_det.d</code>	Type Yes in these fields.
Load <code>msg_mstr.d</code>	
Load <code>lng_mstr.d</code>	
Load <code>lngd_det.d</code>	
All other Load fields	Type No.

Field	Enter
Count Only	Type Yes to run the mgdload program in report mode. The program reads and counts the records to be loaded without actually loading them. Use this feature to review the results of the load in the mgdload.log file before executing the load. If you are ready to make the database changes, type No.
Allow Errors	Type Yes.

- 5 Press F2 to start the load.
- 6 At the prompt Enter a password, userid, or group name, you can specify your security information.
- 7 Switch to a file management window and open the mgdload.log file in the working directory of the MFG/PRO session. Make sure no errors occurred from the mgdload process. The log file notes the number of records read for each of the files above, the messages changed in msg_mstr, and the menus added or removed in mnd_det.
- 8 Return to MFG/PRO and exit from mgdload.

Loading Translated Online Help

- 1 Open Field Help Load (36.4.19).
- 2 In the Language field, enter the two-letter language code of the *additional* language installation, such as fr.
- 3 Leaving other fields blank, skip to the Load File field and enter the explicit path to the fieldhlp.fhd file within the language directory of the language you are adding. For example:
`c:\InstallDir\LanguageCode\fieldhlp.fhd`
- 4 Press F2 to begin the load.

Loading for Other Databases

Repeat steps 1 through 7 in “Loading Menus and Messages” on page 79 for the mfg database, as well as training and demonstration databases, if you use them.

Replacing the GUI Database

Complete these steps to incorporate the gui database from the additional language into your first installation. This database, which is located under the language code sub-directory, contains cumulative translated data; therefore, it must replace the gui database from the first language.

To replace the gui database, you modify the database start-up and shutdown icons to use the path of the gui database to the two-letter language directory. If you have custom additions in the gui database, you can dump and load them into the new database.

These instructions assume you are using the standard start-up icons created by MFG/UTIL. If you are using ProControl to manage your databases, make the equivalent changes using the ProControl utility.

- 1 Shut down all MFG/PRO database sets by double-clicking the shutdown icons, located in the server program group window or Start menu.
- 2 Start MFG/UTIL from the *database server* program group.
- 3 Select the Configure menu and choose Any Database Set.
- 4 In the Database Set Configuration window, do the following for each database set you intend to use—except the Compile set.
 - a Double-click the *gui* database within the set.
 - b Modify the Path field to the two-letter language directory.
- 5 Choose OK in the Database Set Configuration window to save your changes.
- 6 Select the Scripts menu and choose Generate Server Startup and Shutdown.
- 7 Select the database sets you want to update and choose OK.
- 8 Exit from MFG/UTIL.

- 9 If you have custom additions in the User Interface module (gui), you can incorporate them into the new gui database through the following tasks.
 - a Use the PROGRESS Data Dictionary to dump the data from your existing gui database into a temporary directory.
 - b Load the dumped data files into the new gui database.
 - c If you loaded custom browses, you must open and resave each of them in Browse Maintenance (36.20.1) and then compile the resulting source code.

For detailed instructions, see the following sections in the conversion chapter.

- “3: Preserving Custom Default Data” on page 116
- “11: Restoring Custom Default Data” on page 154

Adding a Compile Database Set

In order to compile any part of MFG/PRO for a non-English language, you must connect to a set of databases with translated schema labels. A set of databases with translated labels is kept in the language code sub-directory. Follow these instructions to create a compile database set for use with the translated databases.

- 1 Start MFG/UTIL from the *database server* program group.
- 2 Select the Configure menu and choose Any Database Set.
- 3 In the Database Set Configuration window, choose New Set.
- 4 In the Database Sets window, type the name of the language in the Set Name field. Accept the defaults in all other fields and choose OK.

- 5 Add the following databases to this database set by choosing New Client and completing the Database Parameters window for each database.

Physical	Logical	Connect Parms	Connect Type	Path
<i>mfgLanguageCode</i>	qaddb	-RO	Local	Explicit path to the language database.
<i>guiLanguageCode</i>	qadgui	-RO	Local	Explicit path to the language database.
<i>helpLanguageCode</i>	qadhelp	-RO	Local	Explicit path to the language database.
<i>cfgLanguageCode</i>	qadcf	-RO	Local	Explicit path to the language database.

- 6 Add server parameters for each database by selecting the database and choosing Edit Server. Use the following table as a guide.

Physical	Path
<i>mfgLanguageCode</i>	Explicit path to the language database.
<i>guiLanguageCode</i>	Explicit path to the language database.
<i>helpLanguageCode</i>	Explicit path to the language database.
<i>cfgLanguageCode</i>	Explicit path to the language database.

- 7 Once the database set is complete, choose OK in the Database Set Configuration window to save your changes.
- 8 When you compile MFG/PRO for the language, specify this language database set.

Setting Up Users and Testing the Language Installation

In MFG/PRO, you must assign languages to each user. Open User Maintenance (36.3.18) and modify the Language field to the appropriate two-letter language code.

For Windows GUI clients using a non-English language, you must also deactivate the Microsoft WinHelp viewer help display. This way, the help displays from the help database, which contains the translated help. To deactivate WinHelp, open User Interface Profile (36.20.4), select each non-English user, and deselect the WinHelp check-box—it should be blank.

Language Test

To test your language installation, start an MFG/PRO session and log on as a user who is set up with the language code you want to test.

Open menu item 1.4.1 (in English, Item Master Maintenance), and verify that the fields and help are translated.

Cleaning Up the System

Once you have completed your language test and verified that your MFG/PRO fields have been translated, delete the temporary language directories you created in “Loading an Additional Language on the Database Server” on page 76 and “Loading an Additional Language for Windows Clients” on page 78.

These directories were created to temporarily hold your additional language information until it was copied into your main installation directory. The temporary language directories are now duplicate directories and are no longer needed. Delete them to provide additional disk space.

CHAPTER 7

Additional Setup

Use this chapter to perform post-installation and ongoing maintenance tasks.

Note If you have a DEC Alpha server, you must perform all system administration tasks that are PROGRESS-dependent from an MFG/PRO client machine with PROGRESS ProVISION or 4GL installed.

Managing MFG/PRO with MFG/UTIL **86**

Loading the Source Code Cross-Reference (Optional) **94**

Batch Processes with PROGRESS Prowin32 Batch Client **94**

param91.p 14.13.2 Routing Maintenance (Main Screen)

Routing Code:	10-15000	NONAD(75) CDB IN:
Operation:	20	
Standard Operation:	1030	INSPECTION, ALL SITE
Work Center:	MACHIN	
Description:	INSPEC PER PROX-000	
Machines per Op:	1	Attention: P
Overlap Units:	1	
Queue Time:	1.0	
Wait Time:	0.0	
Setup Time:	0.0	

Route by Production Bldg 1000
Route by

Managing MFG/PRO with MFG/UTIL

Table 7.1 lists some of the MFG/UTIL features you may want to use. For details on using MFG/UTIL, see the *MFG/PRO System Administration Reference Guide*.

Table 7.1
MFG/UTIL
Features

Task	How to Accomplish with MFG/UTIL
Start MFG/UTIL	Double-click the MFG/UTIL icon. For database-related functions, use the icon that is on the server machine. For client related functions, use the icon that is on the client machine. Additionally, there are separate icons for Windows character clients and GUI clients.
Modify MFG/PRO Start-Up Icons	From the MFG/UTIL Configure menu, choose Any Database Set and complete the Database Set Configuration window. To save your changes to the start-up scripts, choose one of the generate options from the Scripts menu.
Compile Code	To compile source programs, select the MFG/UTIL Program menu and choose Compile Procedures. For more information, refer to “Using MFG/UTIL to Compile” on page 91.
Set Up Training Databases	From MFG/UTIL on the server, create a training database server. From MFG/UTIL on the client, create connections to the training database. For more information, refer to “Using MFG/UTIL to Set Up Training Databases” on page 87.
Split Database Schema	To increase performance, you may want to split the production MFG/PRO database across disks or machines. This task requires expertise in PROGRESS and MFG/PRO. Once you know how you want to split the database, you can use the Split Database Schema option under the MFG/UTIL Database menu to create multiple database definition files from the <code>mfgempty.df</code> definition file. For specific instructions, see the <i>MFG/PRO System Administration Reference Guide</i> . Note: If you have the ECommerce Gateway implemented, QAD recommends that you split your Production database schema.

Note For other administration tasks, such as copying or backing up databases, use the Windows NT File Manager or the Windows NT tape backup facility.

Using MFG/UTIL to Set Up Training Databases

MFG/PRO provides additional training databases for specific business environments.

MFG/PRO 9.0 provides enhanced multiple currency capabilities to support the euro—the single European currency being introduced by the European Monetary Union (EMU). The standard MFG/PRO training database (mfgtrain) does not contain multi-currency instruction appropriate to this new business environment. To provide this instruction, QAD has created the Triangulation training database (tritrain).

To enable a business specific training database, you must complete the following tasks.

- Setting up the training database server
- Setting up the training database clients

Setting Up the Training Database Server

Follow these instructions to create a specialized training database server.

- 1 Start MFG/UTIL from the *database server* program group.
- 2 Select the Configure menu and choose Any Database Set.
- 3 In the Database Set Configuration window choose New Set.
- 4 In the Database Sets window, select the Set Name field and type the name you will use for your new training database set; for example, tritrain.

Database Set Parameters:

Set Name:

Set Description:

Start Params:

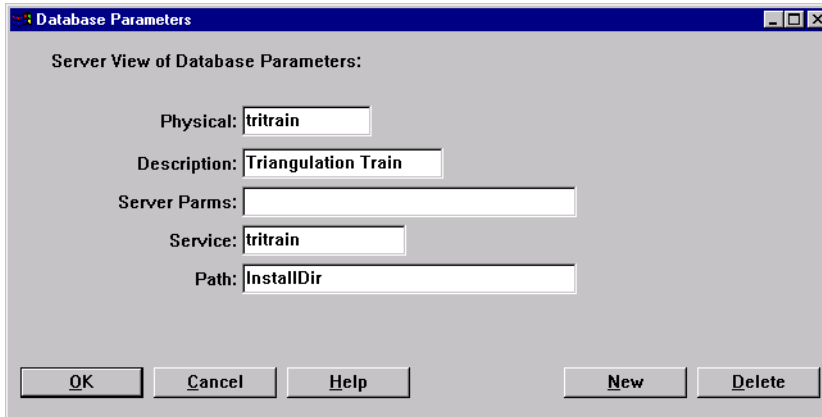
Active:

OK Cancel Help New Delete

- 5 Set the Active field to Yes, and accept the default in all other fields. Choose OK.
- 6 Add database servers to your training database set by choosing New Server and completing the Database Parameters window for each database.

Use the following table and graphic as an example. For this example, the tritrain database is used. Your training database may be different.

Physical	Description	Service	Path
tritrain	Triangulation Train	tritrain	<i>InstallDir\</i>
mfgghelp	Help Database	mfgghelp	<i>InstallDir\us</i>
gui	Gui Database	gui	<i>InstallDir\us</i>
cfg	Configurator Database	cfg	<i>InstallDir\us</i>



- 7 Once the database set is complete, choose OK in the Database Set Configuration window.
- 8 At the MFG/UTIL window, select the Scripts menu and choose Generate Server Startup and Shutdown...
- 9 At the Server Script Creation window, select your training database and choose OK.

MFG/UTIL will generate database server start-up and shutdown icons for your training database.

Note QAD *highly* recommends that you run MFG/PRO databases as registered Windows NT services.

For details, see “PROGRESS ProControl Utility” on page 197.

Setting Up the Training Database Client

Follow these instructions to create specialized training database clients. These instructions assume that you have already set up MFG/PRO GUI clients.

- 1 From an MFG/PRO client PC, start MFG/UTIL.
- 2 Select the Configure menu and choose Any Database Set.
- 3 In the Database Set Configuration window, choose New Set.
- 4 In the Database Sets window, select the Set Name field and type the name you will use for your new training database set; for example, tritrain.

To set up an MFG/PRO client, see “Windows GUI and Character Client Setup” on page 57.

- 5 Set the Active field to Yes and accept the defaults in all other fields. Choose OK.
- 6 Add database clients to your training database set by choosing New Client and completing the Client View of Database Parameters window for each database.
 - a In the Connection Type field, choose ClientServer for each database client.
 - b In the Host field, enter the name of your MFG/PRO Version 9.0 database server.
 - c Use the following table as an example for the remaining fields. For this example the tritrain database is used. Your new training database may be different.

Database	Physical	Logical	Service
Training	tritrain	<i>Leave blank</i>	tritrain
Help	mfghelp	qadhelp	mfghelp
Gui	gui	qadgui	gui
Configurator	cfg	qadcf	cfg

- 7 Once the database set is complete, choose OK in the Database Set Configuration window.
- 8 At the MFG/UTIL window, select the Scripts menu and choose Generate User Startup...
- 9 At the Server Script Creation window, select your training database and choose OK.

MFG/UTIL will generate a client start-up icon for your training database. Test your training environment by double-clicking the new training client icon.

Using MFG/UTIL to Compile

MFG/UTIL provides a compile function that lets you compile against an active database. Use the following instructions to compile.

Non-English Language Compile

If you are compiling for a non-English language, you must first create a compile database set. Before beginning the compilation, complete all the instructions in Chapter 6.

MFG/PRO Character Code Compile

MFG/PRO character code runs on both UNIX clients and Windows character clients. However, when a portion of this code is recompiled, for custom programs or patch implementation, run-time errors can occur.

◆ For details, see the *MFG/PRO System Administration Reference Guide*.

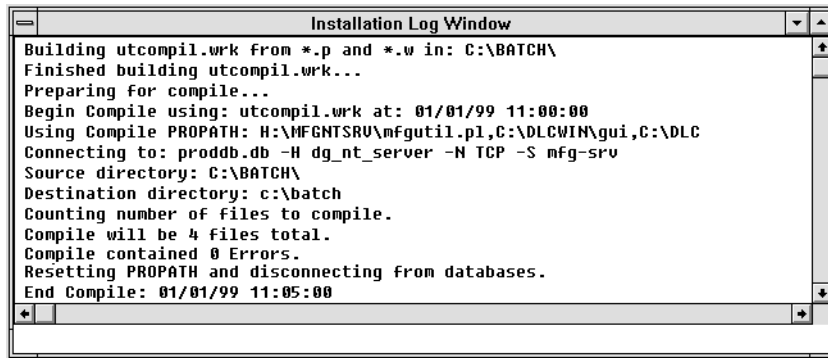
- 1 From the MFG/UTIL main menu, select Program, then Compile Procedures.
- 2 In the Source Directory field, enter the source directory where the .p and other source files are located. Using the two radio buttons, you can compile all of the files in the source directory or point to a work file that contains a list of the files to be compiled. If you select the Files listed in work file option, another input field displays. Enter the full path name of the work file in this field.

- 3 Indicate if you want the new `.r` files saved. If you are performing test compiles, leave this box unchecked until you are ready to do your final compile. In the Destination directory field, enter the full path name of the destination directory.
- 4 If you choose to save the compiled files, do the following substeps.
 - a Enter or accept the default for the two-letter language code in the Language field. It is appended to the end of the directory you specify in the Destination directory field depending on your choice in the next step.
 - b Choose the MFG/PRO default option or the flat destination option. With the default option, your compiled `.r` code is placed in a series of two-letter sub-directories based on the first two letters of the program name. Also, if you compile triggers, they appear under a `.triggers` sub-directory. With the flat destination option, all `.r` code is placed directly under the destination directory, with no language code directory appended.

- 5 The compile process must connect to an active database. In the Use this database set field, select a database set to run the compile against. If you have configured a compile database set, you should select that set; otherwise, select any database set that already has database servers started for it.

Note If you are compiling for a non-English language, the database set must contain databases with translated labels loaded.

- 6 Choose Compile.
- 7 During the compile, an Installation Log Window displays the current status.



```
Installation Log Window
Building utcompil.wrk from *.p and *.w in: C:\BATCH\
Finished building utcompil.wrk...
Preparing for compile...
Begin Compile using: utcompil.wrk at: 01/01/99 11:00:00
Using Compile PROPATH: H:\MFGNTRU\mfgutil.pl,C:\DLCWIN\gui,C:\DLC
Connecting to: proddb.db -H dg_nt_server -N TCP -S mfg-srv
Source directory: C:\BATCH\
Destination directory: c:\batch
Counting number of files to compile.
Compile will be 4 files total.
Compile contained 0 Errors.
Resetting PROPATH and disconnecting from databases.
End Compile: 01/01/99 11:05:00
```

- 8 When the compile ends, choose Print or Close.

Note MFG/UTIL saves the settings you entered in the Compile Procedures Files window so that you can reuse or modify them for the next compile.

Loading the Source Code Cross-Reference (Optional)

The source code cross-reference information provides a map of how the MFG/PRO programs and other components relate to each other. Loading this data is optional. It substantially increases the size of the help tablespace. Load the cross-reference data only once for all languages.

There are six help cross-reference .d files located in the *InstallDir\mfghelp* sub-directory. The file names are:

- *xd_mstr.d* • *xmi_mstr.d* • *xm_mstr.d*
- *xf_mstr.d* • *xp_mstr.d* • *xpi_mstr.d*

You can load these files using MFG/UTIL's Database Menu or the PROGRESS Data Dictionary.

Batch Processes with PROGRESS Prowin32 Batch Client

In an MFG/PRO for Windows NT environment, you can significantly improve performance of certain functions by using the PROGRESS Prowin32 Batch Client. This client can be used to process long-running batch jobs such as regenerative MRP or provide continuous *Hotbatch* processing for background operations such as printing large reports.

The examples in this section illustrate how to set up batch processing to run a regenerative MRP against the *mfgdemo* database and set up Hotbatch processing.

Overview

Setting up the batch process consists of implementing a pre-compiled *batch.p* program to be called by Prowin32. The following is an overview of the activities required to create this program.

- Editing the Batch Program and Input Control File
To meet your specific requirements, you must modify the sample batch program and the input control file provided in this release.
- Copying and Editing the *progress.ini* File

The `progress.ini` file, which you rename `progress.bch`, controls your batch processing environment variables, such as the `PROPATH`.

- Modifying the `batch.pf` File

This file must point to your production database.

- Creating Unique Batch Directories

Instructions on setting up batch directories for different batch jobs.

- Defining Batch IDs for MRP and Hotbatch

An example MRP batch ID is explained, as well as a Hotbatch batch ID for running continuous batch processes.

- Submitting Batch Jobs in MFG/PRO

Once you define the batch IDs, you can schedule items in MFG/PRO.

- Scheduling Batch Jobs in Windows NT

You can schedule the batch jobs using an icon, the Windows NT AT command, or the Windows NT Resource Kit scheduler.

Note If you are using ProControl to start your databases, it is critical for batch processes that you set up the ProControl environment setting `ACCESS=all`.

For details, see “PROGRESS ProControl Utility” on page 197.

Editing the Batch Program and Input Control File

MFG/PRO for Windows NT Version 9.0 includes a pre-compiled batch control program. Below is a listing of the batch control program. The batch program is in the `InstallDir\batch` directory.

Statements in batch Program	Comments
INPUT from <code>batchin.inp</code> .	Defines the input control file.
OUTPUT to <code>batchout.out</code> .	Defines an output file for MFG/PRO screens. This can be very useful for debugging.
PAUSE 0 BEFORE-HIDE.	Standard programming convention.
RUN MFP.	Calls the MFG/PRO main program.
INPUT CLOSE.	Cleanup.
OUTPUT CLOSE.	Cleanup.

There are two sample batch input control files in the sub-directory *InstallDir\batch*:

- *mrpbatch.inp*: Intended for MRP batch processes.
- *hotbatch.inp*: Intended for continuous background processing.

To use either of these sample files, you must first copy or rename the selected file to *batchin.inp*.

Statements in <i>mrpbatch.inp</i> Input Control File	Comments
" "	Positional field.
"mgbatch.p"	Call the mgbatch program.
"mrp"	Call the MRP Batch ID.
.	Escape.
.	Escape.
"Y"	Log off confirmation.

Statements in <i>hotbatch.inp</i> Input Control File	Comments
" "	Positional field.
"mgbatch.p"	Call the mgbatch program.
"hotbatch" - - - - - "yes" "30"	Schedule the hotbatch Batch ID.

If you choose to set up both *hotbatch* and *mrpbatch*, you must put each batch input control file, along with all other batch processing files, in unique directories. You need a unique directory for each input control file because the control file name, *batchin.inp*, is the same in all cases.

Note The minimum files required in each batch directory are: *batch.pf*, *batch.r*, *batchin.inp*, and *progress.bch*.

Copying and Editing the *progress.ini* File

- 1 Copy the *DLC\bin\progress.ini* file to *InstallDir\batch\progress.ini*.
- 2 Rename the extension of the copied file to *progress.bch*.
- 3 Open the copy of the *progress.bch* file in a text editor.

- 4 In the [Startup] section, modify the PROPATH entry to point to your *InstallDir* directory and the *InstallDir*\triggers directory.

Example Original PROPATH.

```
PROPATH=., c:\DLC\PROBUILD\EUCAPP, C:\DLC\PROBUILD\
EUAPP\EUC.PL
```

Example Modified PROPATH. In the following, mfgntsvr is the MFG/PRO database server installation directory.

```
PROPATH=., d:\mfgntsvr, d:\mfgntsvr\triggers
This sets the batch PROPATH to point to the MFG/PRO Windows NT
Version 9.0 character code on your database server.
```

- 5 Save your changes.

Modifying the batch.pf File

This section describes how to modify a copy of the standard batch.pf file to use as the batch start-up parameter file. This file is used during batch processing to point to your production database and to set certain PROGRESS environment variables. You will find the batch.pf file in the *InstallDir*\batch sub-directory.

- 1 Open batch.pf in a text editor.

Sample File:

```
-db your-production-database -mmax 8192 -l 4096 -T
your-temp-drive
```

- 2 Change -db your-production-database to point to the location of your production database. Use the full path.

Example:

```
-db d:\mfgntsvr\mfgdemo.db
```

- 3 Change -T your-temp-drive to point to a temp file location.

Example:

```
-T c:\temp
```

- 4 Specify the location of your gui database using the following line.

```
-db your-gui-database -ld qadgui
```

Example:

```
-db d:\mfgntsvr\gui.db -ld qadgui
```

- 5 Add the `-cpinternal`, `-cpcoll`, and `-cprcodein` database connection parameters. Use the settings appropriate for your language.

The following example applies to most Western European language systems.

```
-cpinternal iso8859-1 -cpcoll basic -cprcodein iso8859-1
```

- 6 Save the `batch.pf` file.

Note If you change the location of your databases, make sure the `batch.pf` file is also changed to reflect the new database locations.

Creating Unique Batch Directories

As an example of creating batch processes for various batch jobs, you will create unique directories for your Hotbatch and MRP batch jobs. Depending on your business, other batch directories might be set up for daily, weekly, and monthly batch processes.

- 1 With Windows NT Explorer or File Manager, create Hotbatch and MRP directories under *InstallDir*\batch.

```
InstallDir\batch\mrp
```

```
InstallDir\batch\hotbatch
```

- 2 Copy the *InstallDir*\batch\hotbatch.inp file to your Hotbatch directory and rename it `batchin.inp`.
- 3 In your Hotbatch directory, open the `batchin.inp` file in a text editor.
- 4 Change the last variable in the final line from 30 to 300.

```
"hotbatch" - - - - - "yes" "300"
```

The batch ID hotbatch will now be run every 300 seconds.

- 5 Copy the *InstallDir\batch\mrpbatch.inp* file to your MRP directory and rename it *batchin.inp*.
- 6 Copy the remaining batch files into both directories.

Batch Process Files

- *batch.pf*
- *batch.r*
- *progress.bch*

Both your Hotbatch and MRP directories should now contain the required batch files: *batchin.inp*, *batch.pf*, *batch.r*, *progress.bch*.

Defining Batch IDs for MRP and Hotbatch

Use the following steps to define the MRP batch job.

- 1 Start an MFG/PRO client session against your production database. In this example, we are using *mfgdemo* as the production database.
- 2 Log in and select menu item Batch ID Maintenance (36.14.1).
- 3 In Batch ID Maintenance, do the following steps:
 - a Create a Batch ID called MRP. Enter the MRP Batch ID name, and press Enter.
 - b Enter the Permanent and Priority fields.

Batch ID Maintenance

User Menu Edit Queue Options Help

Batch ID: MRP

Permanent: no

Priority: 10

F1=Help F2=Go ESC=End F5=Delete Ctrl-X/C/V=Cut-Copy-Paste

Note In this example, the Permanent field is set No and the Priority field is set to 10. This is the priority that this Batch ID runs in relationship to concurrent batch processes. Priority 10 is the highest.

Use the following steps to define the Hotbatch batch job.

- 1 In Batch ID Maintenance (36.14.1), complete the following steps to add a new Batch ID record.

- a Create a Batch ID for a Hotbatch batch job.

The screenshot shows the 'Batch ID Maintenance' window. The title bar reads 'Batch ID Maintenance'. The menu bar includes 'User Menu', 'Edit', 'Queue', 'Options', and 'Help'. Below the menu bar is a toolbar with icons for file operations and navigation. The main area displays the following fields:

- Batch ID: **HOTBATCH** (with an up arrow icon)
- Permanent: **no**
- Priority: **5**

At the bottom of the window, a status bar displays the keyboard shortcuts: 'F1=Help F2=Go ESC=End *Next/Prev* Ctrl-X/C/V=Cut-Copy-Paste'.

- b Set the Permanent field to No. If the Permanent field is set to Yes for hotbatch jobs, they will run continuously at the rate specified in the batchin.inp file—for example, every 300 seconds.

Note To shut down a continuous batch process without shutting down the associated databases, use the Windows NT Task Manager (Ctrl + Shift + Esc) to end the PROGRESS application.

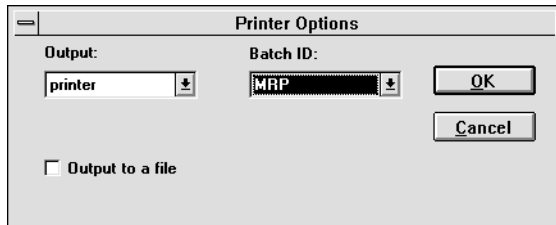
- c Press Go to add the new Batch ID record.

- 2 When the process is completed, press End.

Submitting Batch Jobs in MFG/PRO

These steps explain how to submit batch jobs using the examples of Regenerate Materials Plan (MRP batch ID) and Control File Report (Hotbatch batch ID).

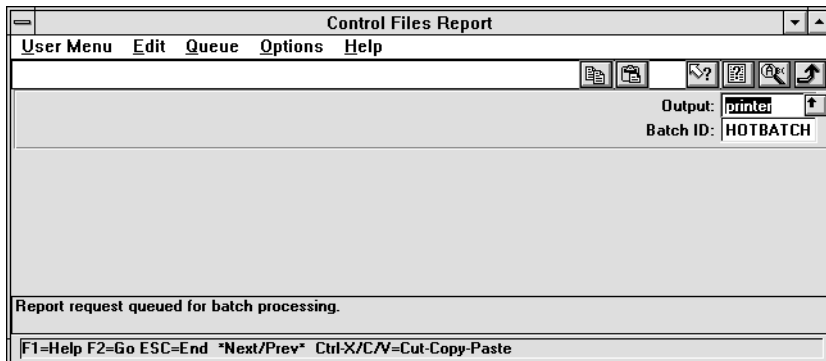
- 1 From the main menu, select Regenerate Materials Plan (23.2).
- 2 At the Regenerate Materials Plan window, enter a site range of 1000 to 5000, then choose Print.
- 3 At the Print Options window, select your output device, select the MRP Batch ID, and choose OK.



- 4 Exit from Regenerate Materials Plan. The MRP request is now queued for batch processing.

Hotbatch Batch ID Example

- 1 Select any report; for example, Control Files Report (36.17.6).
- 2 In the Control Files Report window, select your output device, select the Hotbatch batch ID, and press F2.



Your Report is now scheduled for background printing under control of the batch processor.

- 3 You can check the status of your batch requests by selecting Batch Request Detail Maintenance (36.14.3).

Scheduling Batch Jobs in Windows NT

To schedule a batch job, it is recommended you use a .bat (batch) file. Once you set up this file, you can use either or both of the example techniques shown in this section:

- Using an icon (launches the process on demand)
- Using the AT command (launches the process at a scheduled time)

You can also use the Microsoft NT Resource Kit to schedule batch processing. See that product's documentation for details.

Set Up .bat File

These steps are required whether you use the icon or AT command method of scheduling.

- 1 In a text editor, create a .bat (batch) file for each batch directory. For example, this chapter created MRP and Hotbatch directories. Use the following text.

```
ProgressDir\bin\prowin32.exe -b -p batch.p
    -iname progress.bch
    -pf batch.pf
```

- 2 Use any name for the .bat file. The subsequent steps refer to this file as *BATFileName.bat*.

Using an Icon

Use these steps if you choose to set up a shortcut icon that launches MFG/PRO batch processing on demand.

- 1 Create a new batch client shortcut with the following properties in the Shortcut tab.

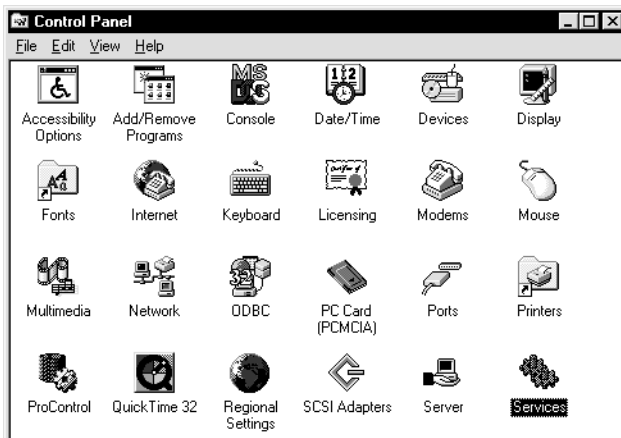
Target:	<i>InstallDir\batch\BATFileName.bat</i>
Start In:	<i>InstallDir\batch</i>

- 2 You can now call the batch process by clicking the new batch icon. To track the process, use the Window NT Task Manager, Applications tab.

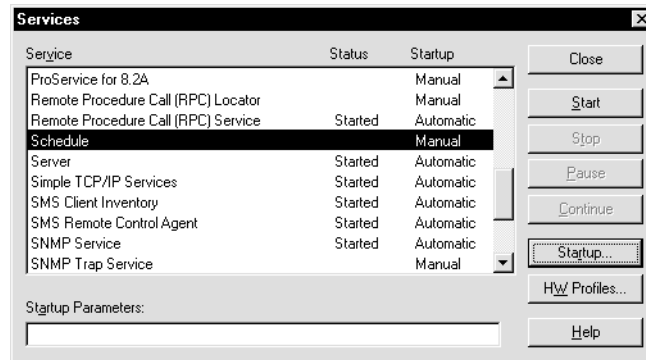
Using the AT Command

Use these steps if you choose to set up MFG/PRO batch processing on a scheduled basis.

- 1 From the Control Panel, select Services.



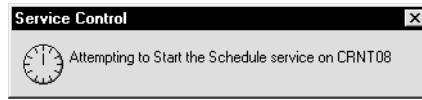
- 2 From the Services window, highlight Schedule and choose the Startup... button.



- 3 In the Service window, do the following.
 - a Select Automatic under the Startup Type so that the service is always running.
 - b Select Allow Service to Interact with Desktop (the box should be checked). This setting is required for the batch program to run. Choose OK.



- 4 When the Services window reappears, make sure Schedule is still highlighted and choose Start. The following window appears as this service starts.



- 5 Verify that “Started” appears in the Schedule status and choose Close.
- 6 To schedule the batch job with the AT command, open the DOS Command Prompt window and enter the appropriate AT syntax. Use the following examples as guidelines. For more information on the Windows NT AT command, see Microsoft’s Windows NT documentation or online help.

To run the batch job every weekday at 7 pm, type the following *as one command line*:

```
at 19:00 /interactive /every:M,T,W,Th,F
    "BatchDir/BATFileName.bat"
```

To run the batch job once at 6 pm the same day, type the following:

```
at 18:00 /interactive "BatchDir/BATFileName.bat"
```

- 7 To view the schedule of batch jobs, type:
at

Convert an Existing Database

This chapter provides instructions for converting a MFG/PRO Version 7.4 through 8.6 database to Version 9.0. A conversion refers to the transition from one numbered release to the next.

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Conversion Overview

Before beginning a conversion, use the instructions in Chapters 3 through 5 to install your new MFG/PRO Version 9.0 server and to create one client. These instructions refer to this new MFG/PRO Version 9.0 installation as your *target version*.

Below is an explanation of how the MFG/PRO data become converted.

Note Before you execute a conversion, you must have the MFG/PRO 9.0 server installed and one client set up.

- **Production Database:** You convert the production database using the program MFG/CONV. This database conversion is the primary focus of this chapter.
- **Default System Data:** MFG/CONV loads the new system data when it converts your production database. This process overwrites custom menu, message, and other system data, but you can obtain reports showing the conflicts and then reenter the custom settings.
- **Help, Gui, and Component Configurator Databases:** MFG/CONV does not convert these databases from the source version. Instead, you install new Version 9.0 help, gui, and configurator databases and use these. Instructions are provided for dumping and loading custom help and Windows data from your source version.
- **GL Report Writer and Intrastat Databases:** Beginning with Version 8.5, there are no longer separate GL Report Writer or Intrastat databases. If you had the GL Report Writer or Intrastat module implemented, you must follow some additional steps to dump and load the data into your Version 9.0 production database. These steps require that you use PROGRESS 4GL or ProVISION.

Source and Target Database Conversions

The conversion has two main parts. First, you run source version programs while connected to the source version database. Second, you run target version programs while connected to the target version database.

The goal of the source version conversion is to dump existing data in either a full or incremental conversion.

▶ For details, see “Choose a Full or Incremental Conversion” on page 110.

After your source version conversion, if you need to prepare target version data, exit MFG/CONV temporarily to prepare your data. Then restart MFG/CONV to continue with the target version conversion. If you do not need to prepare target version data, remain in MFG/CONV and continue with the target version conversion. For more information, see “8: Preparing Data in the Target Version” on page 139.

The goal of the target version conversion is to modify your data so that it conforms to the new database schema and new application functions. Many of these conversion programs are optional, depending on which modules you plan to implement. Before beginning the conversion, determine which MFG/PRO feature conversions you need to run from the list below.

▶ For details, see Chapter 9, “Conversion Program Reference,” on page 161.

Features Introduced in Version 8.5

You may need to run these conversions if you are converting from a Version 7.4 database.

- Compliance
- Co-products/By-products
- Sales Order Pricing
- Service/Support Management
- Currency Dependent Rounding
- Evaluated Receipts Settlement

Features Introduced in Version 8.6

You may need to run these conversions if you are converting from a Version 8.5 database.

- Global Shipping
- Global Tax Management
- Product Change Control (PCC)
- Euro Data Conversion
- Corporate Commodity Codes

Features Introduced in Version 9.0

You may need to run these conversions if you are converting from a Version 8.6 database.

- Supplier Performance Conversion
- Logistics Data Conversion
- ECommerce Data Conversion

Choose a Full or Incremental Conversion

During the source version conversion, you must choose between running full or incremental conversion programs.

As shown in the diagram below, the full conversion programs involve a full dump and load from your original database into a new, empty database. The incremental conversion programs instead convert your source database directly—you do not dump and load the data, except for a small number of files. For this reason, the incremental conversion is faster than a full conversion.

When you choose a conversion method, adhere to these guidelines:

- If you are converting a custom split schema database, use a full conversion.
- A full conversion is recommended to eliminate database fragmentation caused by deleting and archiving records.

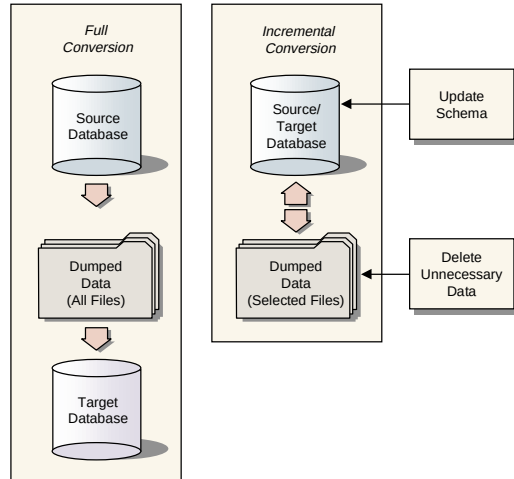


Fig. 8.1
Conversion Types

Conversion Prerequisites

- If you are converting from a PROGRESS 7.x source database, you must first convert it to PROGRESS Version 8.3. See “Converting a Database’s PROGRESS Version” on page 190.
- Install the database server and one client, following the standard instructions in Chapters 3 through 5.

The installation process automatically creates a new production database, which you do not need if you run an incremental conversion against your prior production database. In this case, you can complete the production database creation using a “dummy” name, and then delete it after the installation.

Additionally, for incremental conversions, when you install clients, make sure to reference your source version production database in the database set information.

- Schedule a time to perform the conversion when no other users are on the system. The amount of time required to complete a conversion largely depends on the size of your system. A typical conversion might span one to four days.
- Make a complete backup of your source version production database.
- Perform a test conversion against a copy of your production database.

► For more information, see “4: Starting MFG/CONV and Answering Prompts” on page 118.

Dump Files

During conversions, dump files hold the dumped and converted data used to populate the new database. These ASCII files have the same name as the database files, with a .d extension. You do not need to create these dump files yourself; they are created during the conversion.

The .d files are copies of the data in the database plus any conversions required to use the data in your target version. After the dump process, the data will exist in both the dump files and in the old database itself. You need adequate disk space for the dump directory—at least 80% of the size of its corresponding database.

Warning You should not try to dump the data using the PROGRESS Data Dictionary or custom export programs, because MFG/CONV must run special dumps to convert certain MFG/PRO data.

1: Preparing Source Version Data

This section explains some preliminary steps to perform against the source version database.

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

If you archive and delete records from a mid-year cut-off date, the recalculated year-to-date balances will be understated because they would not include the records you archived and deleted.

Note If you want to restore any archived data, you will have to restore it to the former version and convert it before you can use it.

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

To Prepare Service/Support Management (SSM)

Follow these steps if you plan to implement SSM. The SSM conversion is not required when converting from MFG/PRO 8.5 or higher.

- 1 Close as many calls as possible and delete/archive them.
- 2 Close as many RMAs as possible.
- 3 Perform a delete/archive for fully billed, expired contracts and contract quotes.
- 4 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 will clear any existing labor and expense items you have already recorded.

To Prepare Global Shipping

Follow these steps if you plan to implement the Global Shipping features. The Global Shipping conversion is not required when converting from MFG/PRO 8.6.

- 1 Convert as many pre-shippers to shippers as possible.
- 2 Confirm as many 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 Determine which of the remaining pre-shippers, shippers, and master bills of lading are allowed to be renumbered and which are required to retain their current ID number; for example, due to legal requirements, usage of shipper number as invoice number.
- 6 Use the Pre-Shipper/Shipper Inquiry (7.9.3) and Master Bill Inquiry (7.9.12.3) to review existing records.

◆ For MFG/CONV prompts, see “4: Starting MFG/CONV and Answering Prompts” on page 118.

- 7 Check the system for an existing *carrier* list type using Address List Type Browse (2.10). If one exists, ensure the addresses assigned the existing carrier list type in the source database are addresses you want the system to convert to the new carrier list type in the target database. If you do not want the addresses converted, change the existing carrier list type in the MFG/CONV prompts.

To Prepare Product Change Control

Complete this section if you plan to implement Product Change Control (PCC). The PCC conversion is not required when converting from MFG/PRO 8.6.

As much as possible, close the ECNs that have been routed for approval. To ensure that the approval process is correct, it is best to complete the approval processes before converting the records.

To Prepare for Euro Data Conversion

Complete this section if you plan to perform the Euro Data Conversion. If you are converting from MFG/PRO 8.6E, you do not have to perform this task.

Before running the Euro Data Conversion, post all transactions involving foreign currencies.

To Prepare for Specialized Conversions

Complete the sections appropriate to your source version MFG/PRO system.

Corporate Commodity Codes

Follow these steps if you are converting from MFG/PRO Version 7.4 or Version 8.5 with the Corporate Commodity Code patch implemented.

Run Commodity Code Maintenance (in Version 7.4, 1.4.19; in Version 8.5, 1.11), and note a sample of commodity codes and parts. After converting, use this sample to verify your target version data.

Supplier Performance

Follow these steps if you are converting from MFG/PRO Version 8.6D.

- 1 Run the Supplier Performance Data Report (5.15.14). Make sure to include Inventory Items, Subcontract Items, 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 the Summary Data Report (5.15.20). Make sure to 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.

2: Preparing Reports for Data Verification

QAD recommends you print the reports in Table 8.1 to use as an audit of the conversion. Print them from your source version database. When you have finished the conversion, print these same reports from your target version database and compare the two sets.

Note Some of the reports have moved to a different menu location.

Report or Browse Name	Source Version 7.3/7.4 Menu Number	Source Version 8.5/8.6 Menu Number	Target Version 9.0 Menu Number
Site Report	1.1.15	1.1.14	1.1.14
Item Planning	1.5.4	1.5.4	1.5.4
Item-Site Planning	1.5.16	1.5.16	1.5.16
Stock Status	1.5.8	1.5.8	1.5.8
Inventory Valuation	1.5.21	1.5.21	1.5.21
ECN Status Inquiry	1.9.6	1.9.6	1.9.6
Price List	1.10.3	1.10.1.3 and 1.10.2.3	1.10.1.3 and 1.10.2.3
Customer Master	2.1.4	2.1.4	2.1.4
Customer Ship-to Address	2.1.15	2.1.15	2.1.15
Supplier Master	2.3.4	2.3.4	2.3.4

Table 8.1
Data Verification
Reports

Report or Browse Name	Source Version 7.3/7.4 Menu Number	Source Version 8.5/8.6 Menu Number	Target Version 9.0 Menu Number
Employee Master	2.7.4	2.7.2	2.7.2
Bank Address	2.4.3	2.21.3	2.21.3
Salesperson Commission	2.5.13	2.5.13	2.5.13
US Sales Tax	2.14.3	2.15.1.3	2.15.1.3
VAT-AR by Transaction	2.5.13	2.15.2.13	2.15.2.13
VAT-AP by Transaction	2.5.16	2.15.2.16	2.15.2.16
GST-AR by Transaction	2.16.13	2.15.3.13	2.15.3.13
GST-AP by Transaction	2.16.16	2.15.3.16	2.15.3.16
Purchase Order Transactions	5.9.14	5.9.14	5.9.14
Blanket Order by Order	5.3.3	5.3.3	5.3.3
Sales Quote by Quote	6.13	6.13	6.13
Sales Orders by Customer	7.3.2	7.3.2	7.3.2
Req. Ship Schedule Summary	7.6.5.1	7.6.5.1	7.6.5.1
Orders in Transit	12.15.14	12.15.14	12.15.14
Distribution Order	12.17.16	12.17.16	12.17.16

3: Preserving Custom Default Data

Follow these steps if you have any customizations to the following MFG/PRO default data. Otherwise, skip these steps.

- Online help
- MFG/PRO for Windows (gui) settings

After dumping your custom data, and completing your conversion, follow the steps in “11: Restoring Custom Default Data” on page 154.

Menus and Messages

MFG/CONV does not convert custom changes to these files; however, there are reports provided that display all the custom changes you have made so that you can reenter them.

Dump Custom Online Help

- 1 Start a single-user session of your source version database. Select Field Help Dump (36.4.18).
- 2 Enter user as the beginning and ending range in the Text Type and To fields.
- 3 The field help dump file name defaults to `fieldhlp.fhd`. You can overwrite this default.
- 4 Press Go to begin the dump.
- 5 Exit MFG/PRO and locate the dump file you just created, which should be located in your current working directory. Move this file into your source version dump file directory for safekeeping.
- 6 Check the log file for any errors. Resolve errors before proceeding.

Dump Custom MFG/PRO for Windows Settings

- 1 From a Windows session, review the custom records created for browses, views, drill-downs, and the user tool bar.
 - a Record the menu substitutions you made; you will later reenter them in your target version database.
 - b 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.
 - c Keep a copy of these modifications because they may be overwritten in future releases.
- 2 While no one is logged on, open an MFG/PRO session and access the PROGRESS Editor by choosing the Progress Editor option under the User Menu.
- 3 From the Progress Editor, select the Tools menu and choose Data Administration.
- 4 When the Data Administration window opens, select the Database menu and choose Select Working Database. In the selection window, select qadgui and choose OK.

- 5 In the Data Administration window, select the Admin menu, select Dump Data and Definitions, and choose Table Contents (.d File).
- 6 In the Select Tables window, select the following table files and choose OK.

File Name	Description
brw_mstr brwf_det brwt_det	Browse records
drl_mstr	Drill down records
mmts_det	GUI-related data for translated releases of MFG/PRO
uss_mstr	Users' personal MFG/PRO for Windows settings
utd_det	User tool bar records
vue_mstr vuf_det vwj_det	View records

- 7 When the Dump Data Contents window opens, type the path to your source version dump directory in the Output Directory field. Choose OK, and the dump process begins.
- 8 When the dump is complete, exit the PROGRESS administration tools and then exit the MFG/PRO session.

4: Starting MFG/CONV and Answering Prompts

Starting MFG/CONV

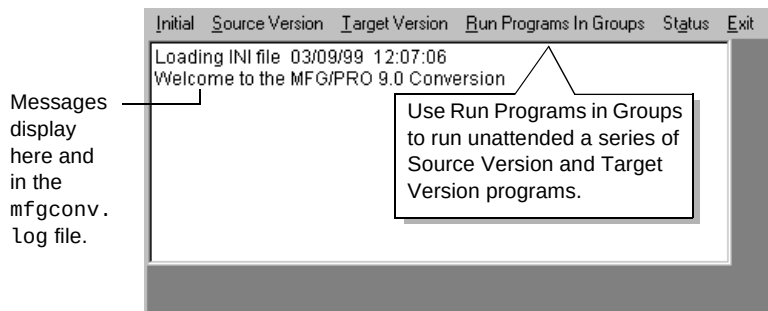
The following steps assume that:

- You have installed your target version MFG/PRO on your NT server.
- You have a source version MFG/PRO 7.4, 8.5, or 8.6 database.
- You have archived and deleted data from your source version database and have made a backup copy.
- You know the directory path of your source version PROGRESS for NT Server and PROGRESS ProVISION or 4GL.
- No other users are logged onto the source version database.

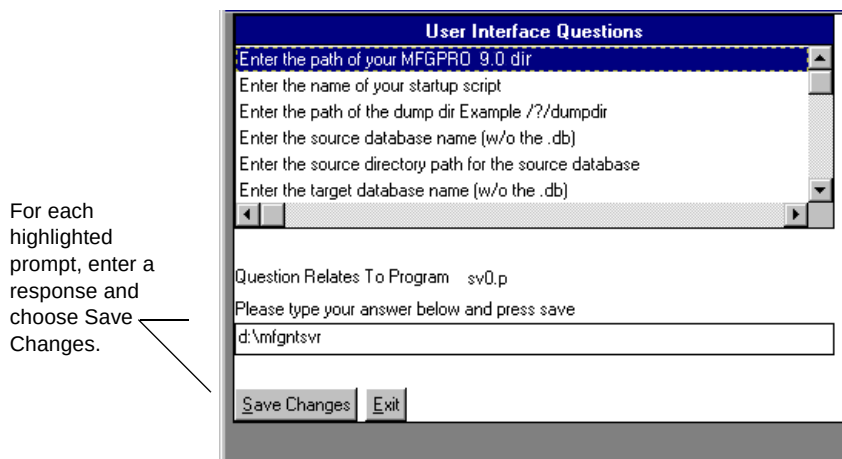
- 1** A dump directory is provided in your target version installation directory, referred to as *TVInstallDir*, under the *conv* sub-directory.

Set up full permissions for the dump directory. The amount of free space in the dump file directory should equal 80% of the size of its corresponding database.
- 2** Move all the files from your *TVInstallDir\conv\dot-ds* sub-directory to your dump directory.
- 3** Start the database server for the source version main production database only.
- 4** Using a text editor, open the *convnt1.bat* file located in *TVInstallDir\conv*.
- 5** Open the *convnt1.bat* file in a text editor, and make the following changes.
 - a** Replace your *-client-DLC* with the directory path to your source version PROGRESS ProVISION (must be a full PROGRESS).
 - b** Replace your *path\your-database* with the path and name of your source version database.
 - c** Replace your *-service* with the service name for this database.
 - d** Replace your *-host* with the host name of the machine.
 - e** Replace your *-tempdir* with the path of your Windows temp directory; for example, *c:\temp*.
 - f** If you have a source version split schema database, make sure the script connects to all of the split schema databases.
- 6** Save your changes and quit from the text editor.
- 7** From File Manager or Explorer, double-click on the *convnt1.bat* file.

- 8 When the conversion program appears, note the following.



- 9 Select the Initial menu, and choose Set Up Environment. A dialog box appears, listing all the environment-related prompts that the conversion programs need answered.



Answering Prompts

Use the following tables as a guide to help you complete the prompts. Some prompts may not appear, depending on what source version you are converting, which is detected automatically.

For more information, see “Conversion Program Reference” on page 161.

Table 8.2 lists general environment-related prompts; most are required for all conversions. All the other tables in this section list optional prompts related to specific MFG/PRO functionality.

When you have completed the prompts, choose Exit to close the User Interface Questions window.

Table 8.2.
General Prompts

General Prompts	
Prompt	Description
Path of 90	This prompt is required. Enter the path to your target version installation directory; for example, <code>MFGNTSRV90</code> .
Startup script	This prompt is required. Enter the name of the start-up file used to begin MFG/CONV against the source version database; for example, <code>convnt1.bat</code> .
Path of dump dir	This prompt is required. Enter the path to your conversion dump directory; for example, <code>mfg74\dump</code> .
Source database name	This prompt is required. Enter the name of your source version database; for example, <code>mfg74</code> .
Source database directory path	This prompt is required. Enter the path to your source version database; for example, <code>74InstallDir\mfg74</code> .
Target database name	This prompt is required. Enter the name of your target version database; for example, <code>mfgprod90</code> . Note: For incremental conversions, the source and target database can have the same name. For more information, see “Choose a Full or Incremental Conversion” on page 110.
Target database directory path	This prompt is required. Enter the name of your target version database; for example, <code>MFGNTSRV90\mfgprod90</code> .
If split schema, Enter the Dfname to get the extra 90files	This prompt is optional; answer it if you have a split schema source version database. Enter the name of one of your current split schema databases. Be sure to include the <code>.df</code> extension in your response. The conversion utility, specifically the <code>svp5.p</code> program, can create <code>.df</code> files for your target version database that correspond to the split schema in your source database. The program patterns the <code>.df</code> files on the databases you are connected to, and on the target version <code>mfgempty.df</code> file. The “extra 90files” referred to by this prompt include additional database files required by the target version but absent from Versions 7.4, 8.5, or 8.6. You must specify which <code>.df</code> file should include the extra target version files.
Enter the name and path of the 90 mfgempty DF file ?\mfgempty.df	This prompt is optional; answer it if you have a split schema for your source version database. Enter the path to your target version installation directory, followed by the <code>mfgempty.df</code> file name.

Table 8.3
Global Shipping
Prompts

Global Shipping Prompts	
Prompt	Description
Enter prefix for new <i>Pre-Shipper</i> NRM sequence IDs	The value entered at this prompt represents the NRM Sequence the system will create and assign to all new pre-shippers, if a default Pre-Shipper Sequence ID is not defined in the Shipper/Container Control File.
Enter prefix for new <i>Shipper</i> NRM sequence IDs	The value entered at this prompt represents the NRM Sequence the system will create and assign to all new shippers, if a default Shipper Sequence ID is not defined in the Shipper/Container Control File.
Enter prefix for new <i>Master Bill of Lading</i> NRM sequence IDs	The value entered at this prompt represents the NRM Sequence the system will create and assign to all new master bills of lading, if a default Master Bill Sequence ID is not defined in the Shipper/Container Control File.
Enter prefix for new document format codes	The value entered at this prompt represents the Document Format the system will create for all existing standard and custom shipper print procedures.
Enter new List Type for existing “carrier” addresses	Global Shipping provides a new reserved <i>carrier</i> list type. In the case that a user-defined list type called “carrier” was created prior to installing the target version MFG/PRO, the conversion utility enables you to redefine the existing <i>carrier</i> list type to something other than “carrier.” The value entered at this prompt represents the new list type. Do one of the following: • If you do not want to redefine the existing <i>carrier</i> list type, leave the response blank or enter “carrier.” The addresses in the <i>carrier</i> list type will be designated as carrier addresses. • If you want to redefine the existing <i>carrier</i> list type, enter a new list type name at the prompt. The addresses in the new list type will not be designated carrier addresses. • If you want to merge the existing <i>carrier</i> list type with another existing list type, enter the non-carrier list type. The addresses in the non-carrier list type will not be designated carrier addresses.

Table 8.4
CDR Prompts

Currency Dependent Rounding (CDR) Prompts	
Prompt	Description
Balance Sheet CR Variance Accounts Balance Sheet DR Variance Accounts	In these prompts, you can specify where the CDR conversion program (<code>tvcdrr1.p</code>) records rounding variances generated during the conversion. You can use new account numbers or existing ones, such as those set up for Method Variances. If you use new account numbers, you must set up these accounts in the target version MFG/PRO database before you actually run the conversion. You can specify the same account/cost center for any or all of the questions. If you leave an account blank, the conversion program uses the Method Variance account as the default.
Profit/Loss CR Variance Accounts Profit/Loss DR Variance Accounts	For these prompts, follow the same guidelines as the Balance Sheet prompts, described above.
Update While Reporting?	This prompt gives you the choice of whether you want to update the database in addition to printing a report. To update the database, type Yes. If you type No or leave this prompt blank, the program only generates a report (<code>90cdr.prn</code>) of the proposed rounding changes without actually implementing any of them. If you respond No and want to commit the changes later, you must run <code>tvcdrr1.p</code> again, this time answering Yes to this same prompt. The conversion program will perform the same rounding processes and will run as long as it did the first time.

Table 8.5
ERS Prompt

Evaluated Receipts Settlement (ERS) Prompt	
Prompt	Description
ERS, enable POs?	This prompt relates to the Evaluated Receipts Settlement (ERS) conversion. 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.

Table 8.6
Field Service
Prompts

Field Service Prompts	
Prompt	Description
Do you want Service Charges converted to Coverage limits (Yes/No):	The Field Service conversion can map your service charge types to their new definitions in MFG/PRO Version 9.0. If you want the conversion to do this, answer Yes to this prompt and complete the following questions. If you want to redefine your coverage levels manually, answer No and skip the following questions.
Primary Invoice Sort for... ...Expense Item Coverage ...Labor Coverage ...Item Coverage ...Travel Coverage ...Misc. Coverage	Invoice sort codes are SSM codes that you must set up in order for the conversion to convert your service charge types. When you are ready to set up the codes, see “Service/Support Management (SSM)” on page 167. For more information on SSM, see <i>User Guide Volumes 8A and 8B: Service/Support Management</i>. In these prompts, enter the invoice sort codes you want to use. Note the following: Expense Item Coverage relates to E Service Charge Type Labor Coverage relates to L Service Charge Type Item Coverage relates to P Service Charge Type Travel Coverage relates to T Service Charge Type Misc. Coverage relates to M Service Charge Type

Table 8.7
Euro Data
Conversion
Prompts

Euro Data Conversion Prompts	
Prompt	Description
Enter Currency Exchange Unrealized Gain ...Account ...Cost Center	These prompts let you enter default account and cost center information for posting unrealized gains in currency exchanges. The account number can contain both account and sub-account elements. If you leave this prompt blank, the Unrealized Exch Rate Gain/Loss Acct defined in the General Ledger (Company) Control File is used as a default. No default cost center is used.
Enter Currency Exchange Unrealized Loss ...Account ...Cost Center	These prompts let you enter default account and cost center information for posting unrealized losses in currency exchanges. The account number can contain both account and sub-account elements. If you leave this prompt blank, the Unrealized Exch Rate Gain/Loss Acct defined in the General Ledger (Company) Control File is used as a default. No default cost center is used.

Euro Data Conversion Prompts	
Prompt	Description
Enter Currency Exchange Realized Gain ...Account ...Cost Center	These prompts let you enter default account and cost center information for posting realized gains in currency exchanges. The account number can contain both account and sub-account elements. 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	These prompts let you enter default account and cost center information for posting realized losses in currency exchanges. The account number can contain both account and sub-account elements. If you leave this prompt blank, the Exchange Loss Account and Cost Center defined in the first Bank Master record matching the currency in question are used.
Enter Currency Exchange Unrealized Gain ...Account ...Cost Center	These prompts let you enter default account and cost center information for posting unrealized gains in currency exchanges. The account number can contain both account and sub-account elements. If you leave this prompt blank, the Unrealized Exch Rate Gain/Loss Acct defined in the General Ledger (Company) Control File is used as a default. No default cost center is used.
Enter Currency Exchange Rounding ...Account ...Cost Center	These prompts let you enter default account and cost center information for posting rounding amounts in currency exchanges. The account number can contain both account and sub-account elements. Note: This field is not used in the current release, but is intended for future MFG/PRO functionality.

5: Running Source Version Reports

Several reports are available to assist with conversions for:

- Custom Menus and Messages
- Field Service

Follow the steps below and allow time in case you need to correct your source version data.

- 1 Select the Source Version menu from within MFG/CONV.
- 2 Choose the first option, svp0, Compile sv Conversion Programs. This option also compiles the report programs.
- 3 When the compile is complete, select the Source Version menu and the Reports option. The available reports appear as a side menu.

Custom Menus and Messages Reports

- 1 If you have custom changes to menus, messages, or other system data, print the following reports, chosen from the Source Version menu.

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

- svmndrep (custom menu data)
 - svmsgrep (custom message data)
 - svlndrep (custom language detail)
 - svlngrep (custom language master data)
- 2 To view the reports, choose View Reports from the Reports menu option. In the Choose a Report to View window, select the needed report and choose the View Report button.

Field Service Reports

Complete the following steps only if you are converting Field Service data.

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

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

- 2 Run `svfscon3` to obtain a report showing any lot/serial controlled items that exist in the installed base with blank lot/serial numbers.

When you run `svfscon3`, enter as much report criteria as you want in the End User, Item Number, and Serial field ranges.

- 3 Review the output of `svfscon1` and `svfscon3` using the View Reports option. The output files are `fscon1.log` and `fscon3.log`. If any items appear on either report, exit MFG/CONV and print them out for further review.

- 4 When you review the first report, `fscon1.log`, determine which of these error conditions applies to each contract line:

- The coverage overlaps coverage provided by another contract line.
- The contract line is for a lot/serial-controlled item but lacks a lot/serial number.

- 5 If an overlap condition is found and reported by this utility, sign on to your source version database and either alter contract line coverage dates, or delete one of the line items to eliminate the overlap.

Note In Version 9.0, 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.

6 If `fscon1.log` shows contract lines with missing lot/serial numbers, choose one of these resolutions:

- If the contract line should provide coverage for specific items, the appropriate lot/serial number or numbers should be entered in Contract Maintenance on the source version database.
- If the contract line is really intended to cover every item for the associated end user, it is considered a blanket contract. When you restart MFG/CONV, you can run the report utility `svfscon2.p` to set this field to Yes for those contracts providing blanket coverage.

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. Once you have done this, you can create new contracts for those specific items.

7 Fixing discrepancies reported on `fscon3.log` may require several steps:

- Use Installed Base Item Maintenance (`fsisbmt.p`) to specify the appropriate lot/serial number for the item in the source version. 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 (`fscamt.p`) to modify the lot/serial number.
- If the item is referred to by one or more service quotes/contracts, not intended to be blanket contracts, use Service Quote/Contract Maintenance (`fsqomt.p` or `fssamt.p`) to modify the lot/serial number.

- 8 If you have identified blanket contract lines from the `fscon1.log` report, restart MFG/CONV, select the Source Version menu, choose the Reports option and run `svfscon2`. This utility sets the blanket flag (`sa_blanket`) on selected contracts to Yes.

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

Note Setting the flag to Yes has no impact in the previous version, but is supported in Version 9.0.

- 9 When you have finished running Source Version reports, continue with either:
 - “6: Performing a Full Conversion Dump and Load” on page 129.
 - “7: Performing an Incremental Conversion Dump and Load” on page 133.

6: Performing a Full Conversion Dump and Load

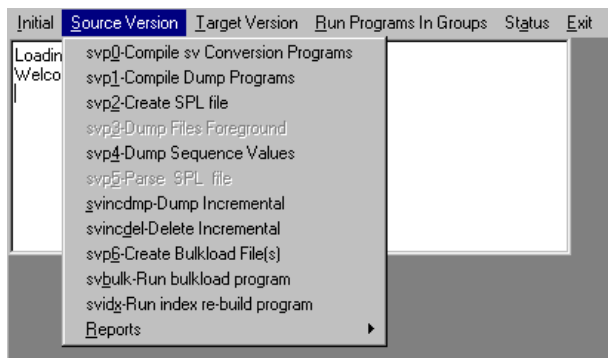
Follow either these instructions or the instructions under “7: Performing an Incremental Conversion Dump and Load” on page 133. For general information on full and incremental conversions, see “Choose a Full or Incremental Conversion” on page 110.

The tasks involved with a full conversion are:

- “Preparation for Full Conversion” on page 130.
- “Data Dump” on page 131.
- “Bulkload and Index Rebuild for Full Conversion” on page 131.

Preparation for Full Conversion

- 1 If you are not currently in MFG/CONV, start it using the convnt1.bat file.
- 2 If you have not yet compiled the source version programs, select the MFG/CONV Source Version menu and choose svp0, Compile sv Conversion Programs.



Note You must perform this step first; otherwise, you will receive a fatal error later in the conversion.

- 3 When the compile is complete, run the required programs listed below either one at a time from the Source Version menu or in groups using the Run Programs in Groups menu.

If you choose Run Programs in Groups, select the programs by clicking each one. Choose Run Programs when ready.

Program	Description
svp1	Compile Dump Programs. Compiles the source version dump programs against the source version database. These dump programs are provided in the <i>InstallDir\conv</i> sub-directory.
svp2	Create SPL file. Creates the .spl file used during the bulkload portion of the conversion.
svp3	Do <i>not</i> run this program yet. It will be run later.
svp4	Dump Sequence Values. Dumps transaction history and other values from the source version database to be used when assigning sequences in the Version 9.0 database.

- 4 If your source version database has custom split schemas, run the program `svp5`, Parse SPL File.

The `svp5` program creates separate database definition files (extension `.df`) for each split schema. Later, when you prepare for the bulkload, you will use these separate database definition files to create a split schema target version database.

Before running `svp5`, you should have answered the appropriate prompts in the User Interface Questions window.

♦ See step 9 on page 120.

Data Dump

- 1 Be sure all users are off the system and remain off.
- 2 Run `svp3`, Dump Files Foreground.
- 3 After the dump and delete are complete, choose `svp6`, Create Bulkload File(s). This option creates a bulkload descriptor file (extension `.fd`) for use during the bulkload.

Note You *must* run `svp6.p` in order for the bulkload to work correctly.

Bulkload and Index Rebuild for Full Conversion

A bulkload and index rebuild can be performed from either MFG/CONV or from the DOS command line. If you want to perform a bulkload and index rebuild from the command line, see “Command Line Bulkload and Index Rebuild” on page 191. To perform a bulkload and index rebuild using MFG/CONV, complete the following steps.

- 1 Select the Source Version menu and choose `svbulk`, Run bulkload program.

When prompted to disconnect from the source version database, choose Yes.

- 2 A second prompt displays the following environment variables. Make sure that the information is correct before proceeding.

```
.\svbulk \TVDBDir\TVDBName
      \TVInstallDir\conv\DumpDir\SVDBName.fd
```

TVDBDir and *TVDBName* refer to your target version database directory and name, *TVInstallDir* refers to your target version installation directory, *DumpDir* refers to your conversion dump directory, and *SVDBName.fd* refers to your source version database name.

For information on prompts, see “Answering Prompts” on page 120.

If any of the information is incorrect, choose No at the prompt. Select the Initial menu from the MFG/CONV screen, choose *svp0* (Set Up Environment), and enter the correct information at the appropriate prompt.

- 3 After the load is complete, choose *svidx*, Run index re-build program.
- 4 When the following prompt displays, make sure the information is correct before proceeding.

```
.\svidx \TVDBDir\TVDBName
```

TVDBDir and *TVDBName* refer to your target version database directory and name.

For information on prompts, see “Answering Prompts” on page 120.

If the information is incorrect, choose No at the prompt. Select the Initial menu from the MFG/CONV screen, choose *svp0* (Set Up Environment), and enter the correct information at the appropriate prompt.

- 5 Check that the bulkload and index rebuild programs have completed and check their respective log files for errors.
 - Bulkload — *TVInstallDir\conv\svbulk.log*
 - Index Rebuild — *TVInstallDir\conv\svidx.log*
- 6 If you need to prepare target version data, choose Yes at the prompt to exit MFG/CONV. Continue with “8: Preparing Data in the Target Version” on page 139.
- 7 If you do not need to prepare target version data, choose No at the prompt and continue with “9: Running Target Version Conversions” on page 141.

7: Performing an Incremental Conversion Dump and Load

Follow either these instructions or the instructions under “6: Performing a Full Conversion Dump and Load” on page 129. For general information on full and incremental conversions, see “Choose a Full or Incremental Conversion” on page 110.

Note In the following situations, you must perform a full conversion instead.

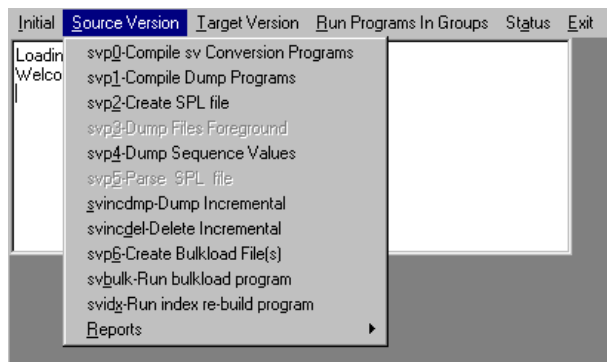
- Converting a custom split schema database.
- Converting from a PROGRESS 6.x database using a Client/Server connection.

The tasks involved with an incremental conversion are:

- “Preparation for Incremental Conversion” on page 133.
- “Update Production Database Schema” on page 135.
- “Bulkload and Index Rebuild for Incremental Conversion” on page 137.

Preparation for Incremental Conversion

- 1 If you are not currently in MFG/CONV, start it using the convnt1.bat file.
- 2 If you have not yet compiled the source version programs, select the MFG/CONV Source Version menu and choose svp0, Compile sv Conversion Programs.



Note You must compile the conversion programs first; otherwise, you may receive a fatal error later in the conversion.

- 3 When the compile is complete, run the required programs listed below either one at a time from the Source Version menu or in groups using the Run Programs In Groups menu.

If you choose Run Programs In Groups, select the programs by clicking each one. Choose Run Programs when ready.

Program	Description
svp1	Compile Dump Programs. Compiles the source version dump programs against the source version database. These dump programs are provided in the <i>InstalDir</i> \conv sub-directory.
svp2	Create SPL file. Creates the .spl file used during the conversion bulkload.
svp4	Dump Sequence Values. Dumps transaction history and other values from the source version database to be used when assigning sequences in the Version 9.0 database.

- 4 Run the next set of source version programs *one at a time* in the following order. Do not use Run Programs In Groups.

Program	Description
svincdmp	Incremental Dump. Although most of the data remains in your existing database for an incremental conversion, MFG/CONV must dump a small number of tables to perform conversion-related changes to the data structure.
svincdel	Incremental Delete. This option removes unnecessary data, including what was dumped by the svincdmp program. At the confirmation prompt, choose Yes.
svp6	Create Bulkload File(s). This option creates a bulkload description file, extension .fd, for use during the bulkload. The bulkload will fail if you do not run this program. Note: Do <i>not</i> run this option if you convert from MFG/PRO Version 8.5, because a bulkload description file is provided for you.

- 5 When the appropriate source version programs are finished, exit MFG/CONV.

Update Production Database Schema

If you are performing an incremental conversion from MFG/PRO Versions 8.5 or 8.6 to MFG/PRO Version 9.0, additional steps are required to update your database schema. If you are converting from any other MFG/PRO version, continue with “Database Schema Update” on page 137.

A database schema update error can occur when converting a large database if the before-image file (extension .bi) exceeds the operating system size. To resolve this error, complete the instructions in “Editing Data Definitions for Schema Update” on page 189.

Additional Set-Up Instructions for MFG/PRO Version 8.5 and 8.6

If you are performing an incremental conversion from MFG/PRO 8.5 or 8.6, complete the steps in this section before updating your database schema.

The `df.ini` file contains a list of the `.df` (data definition) files required to build or update an MFG/PRO database schema. A small number of these `.df` files may not be required to update your database schema. To update your schema correctly, you must edit the `df.ini` file to reflect your source version database.

Note Back up the `df.ini` file located in your MFG/PRO target version directory before beginning.

- 1 In any text editor, open your target version `df.ini` file located at:
`TVInstallDir\df.ini`
- 2 In the `df.ini` file, locate the comment line that corresponds to your source version database. Only the line that corresponds to your source version database will have to be edited.
A comment line is indicated by a pound sign, for example:

```
# Build 90 from 8.5 db
```

or

```
# Build 90 from 8.6 db
```
- 3 Leave the text editor running and open the PROGRESS Data Dictionary.

- 4 Using the PROGRESS Data Dictionary, connect to your source version database.
- 5 If your source version database has any of the tables or the sequence listed in Table 8.8, use your text editor to remove the corresponding .df from your df.ini file.

Table 8.8
Editing the
df.ini File

Source Version Database Contents	Remove From Your df.ini File
em_mstr Table	grscrc.df
qpín Table	uc1crc.df
sprf_mstr Table	webcrc.df
comd_det Table	adgcrc.df
cnt_mstr Table	uccrc.df
mf_sq01 Sequence	86seq.df

- 6 To remove a .df from your df.ini file, remove the comma proceeding the .df name, the .df name, and the .df extension from the line.

For example, the following df.ini file contains a comment line for converting MFG/PRO 8.5 to 9.0. The MFG/PRO 8.5 source version database contains the em_mstr table. Therefore, the grscrc.df needs to be removed from the df.ini file.

Example Original df.ini file.

```
# Build 90 from 8.5 db
8.5,90,85up.df,86crc.df,86up.df,grscrc.df,uc1crc.df,
webcrc.df,uccrc.df,dfadgcrc.df,86seq.df,newup.df,
86epre.df,86ecrc.df
```

Example Edited df.ini file.

```
# Build 9 from 8.5 db
8.5,90,85up.df,86crc.df,86up.df,uc1crc.df,webcrc.df,
uccrc.df,dfadgcrc.df,86seq.df,newup.df,86epre.df,
86ecrc.df
```

- 7 Save your changes and continue with the instructions in “Database Schema Update” on page 137.

Database Schema Update

Note You must start the database server for the database you will update.

- 1 On the Windows NT Server, start the MFG/UTIL program installed for your target version.
- 2 When MFG/UTIL opens, select the Database menu and choose Update Schema.
- 3 In the Update Schema window, enter the following information and choose OK.

Field	Description
Update this Database File	Enter the path and physical database name of your source version main production database.
Using this Data Definition File	Type the MFG/PRO 9.0 installation directory path and the <code>mfgempty.df</code> file.
Allow CRC Changes	Make sure to select this option.

Warning If your source version database is larger than three gigabytes, you may receive an error when updating the database schema. Specifically, the database .bi file could grow too large. If so, the solution is to edit your target version database definitions and rerun the MFG/UTIL schema update option.

▶ See “Editing Data Definitions for Schema Update” on page 189 for instructions.

- 4 Exit from MFG/UTIL.

Bulkload and Index Rebuild for Incremental Conversion

A bulkload and index rebuild can be performed from either MFG/CONV or from the DOS command line. If you do not want to reconnect to MFG/CONV and want to perform a bulkload and index rebuild from the command line, see “Command Line Bulkload and Index Rebuild” on page 191. To perform a bulkload and index rebuild using MFG/CONV, complete the following steps.

- 1 Start MFG/CONV using the `convnt1.bat` file.
- 2 A second prompt displays the following environment variables. Make sure that the information is correct before proceeding.

```
.\svbulk \TVDBDir\TVDBName
\TVInstallDir\conv\DumpDir\SVDBName.fd
```

TVDBDir and *TVDBName* refer to your target version database directory and name. *TVInstallDir* refers to your target version installation directory, *DumpDir* refers to your conversion dump directory, and *SVDBName.fid* refers to your source version database name.

▶ For information on prompts, see “Answering Prompts” on page 120.

If any of the information is incorrect, choose No at the prompt. Select the Initial menu from the MFG/CONV screen, choose *svp0* (Set Up Environment), and enter the correct information at the appropriate prompt.

- 3 After the load is complete, choose *svidx*, Run index re-build program.
- 4 When the following prompt displays, make sure the information is correct before proceeding.

```
.\svidx \TVDBDir\TVDBName
```

TVDBDir and *TVDBName* refer to your target version database directory and name.

▶ For information on prompts, see “Answering Prompts” on page 120.

If the information is incorrect, choose No at the prompt. Select the Initial menu from the MFG/CONV screen, choose *svp0* (Set Up Environment), and enter the correct information at the appropriate prompt.

- 5 Check that the bulkload and index rebuild programs have completed and check their respective log files for errors.
 - Bulkload — *TVInstallDir\conv\svbulk.log*
 - Index Rebuild — *TVInstallDir\conv\svidx.log*
- 6 If you need to prepare target version data, choose Yes at the prompt to exit MFG/CONV. Continue with “8: Preparing Data in the Target Version” on page 139.
- 7 If you do not need to prepare target version data, choose No at the prompt, and continue with “9: Running Target Version Conversions” on page 141.

8: Preparing Data in the Target Version

Depending on which Version 9.0 features you want to implement, complete the appropriate steps in this section. You must make these preparations in order for the target version programs to run correctly.

Note Perform all data preparation in a target version session.

Co-products/By-products Preparation

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

- 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 the System/Account Control File (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 the System/Account Control File, update the product lines where the mix variance account differs from the system default.

Note You must run the Co-products/By-products conversion before processing any work orders.

Service/Support Management (SSM) Preparation

Follow these steps if you plan to implement SSM.

- 1 In MFG/PRO Versions 7.4 and 8.5, coverage levels were set by service charge types. This method 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 your target version that map your service charge types into the new way they are defined in SSM.

You will need to set up at least three invoice sort codes using Invoice Sort Code Maintenance (11.21.5). You must have at least one code of each type: Labor, Expenses, and Items. You can set up more codes if you want.

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

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

Note Travel expenses may be included in the Expenses invoice sort, and Miscellaneous Items may be included in the Items invoice sort.

- Five new service accounts have been added to the accounts associated with product lines. If you want the conversion utility to supply account numbers and cost centers for these accounts for existing product lines, define default service accounts in the System/Account Control File (36.1).

- Consider the setting you want for the new PO Required flag.

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 Address Maintenance (2.1.1).

This feature is associated with customers and end-users. The PO Required flag indicates that this customer or end-user must supply a purchase order number. End-users will inherit the value of this flag from the customer they are related to.

Currency Dependent Rounding (CDR) Preparation

Follow these steps if you are converting from MFG/PRO 7.3 or 7.4. If you are converting from MFG/PRO 8.5 or higher, you do not have to complete these steps.

▶ See *User Guide Volume 11: Manager Functions* for details on setting up rounding methods.

- Set up new rounding methods in Rounding Method Maintenance (36.2.9). The conversion applies the new rounding methods to existing transactions, GL balances, and history files.
- The conversion records rounding variances generated during the conversion to the accounts you specified in the MFG/CONV user interface prompts. If you want to establish new rounding accounts or cost centers to record these variances, set them up in MFG/PRO.

Global Shipping Preparation

Follow these steps if you plan to implement Global Shipping.

- 1 Each pre-shipper, shipper, and master bill of lading that cannot be renumbered must have a valid NRM sequence. In order 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 are not permitted to be renumbered.

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

- 2 The conversion utility 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 the Sales Order Control File (7.1.24). To use different information than the default company address, either create new address records prior to running the conversion or edit the address records after the conversion.

9: Running Target Version Conversions

The data conversion includes many programs that you can run independently of each other. For details on the operations of these programs, see Chapter 9, “Conversion Program Reference,” on page 161.

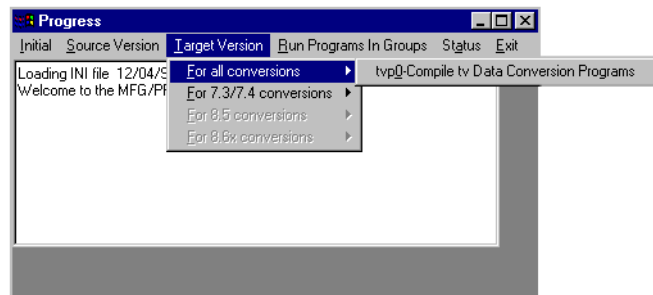
Revise and Launch Target Database Startup

- 1 Start your target version MFG/UTIL.
- 2 Select the Configure menu and choose Any Database Set. In the Database Set Configuration window, select your production database set.
- 3 Change the production database to match the converted, target database you created from the full or incremental conversion.
- 4 Choose OK in the Database Set Configuration window.

- 5 Select the Scripts menu and choose Generate Server Scripts. MFG/UTIL modifies the server start-up icons.
- 6 From the Program Manager, double-click your target version server start-up icon.

Revise and Launch MFG/CONV Start Up

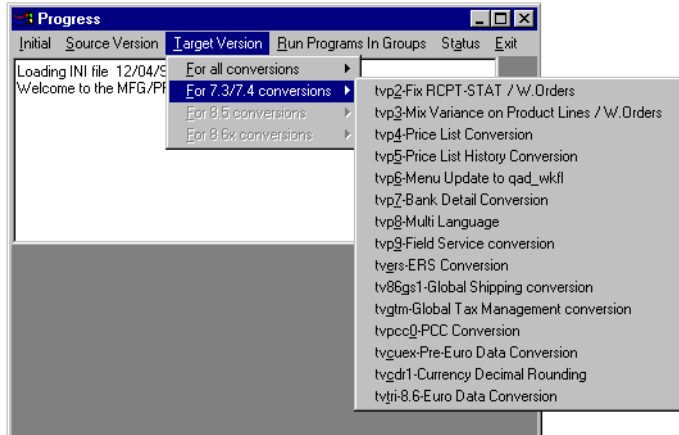
- 1 In a text editor, modify the convnt2.bat file.
 - a Replace your -client-dlc with the directory path to your target version PROGRESS ProVISION or 4GL; for example, c:\dlcwin.
 - b Replace tempdrive\loc with the path of your Windows temp directory; for example, c:\temp.
 - a Replace new-database-name with the name of your new Version 9.0 target database.
 - b Replace host-name with the host name for your computer; it should match the name in your hosts file.
 - c Replace service-name with the service name for each database; it should match the names in your services file.
- 2 From File Manager or Explorer, double-click on the convnt2.bat file.
- 3 From the MFG/CONV environment window, select Target Version from the menu bar, and choose the For all conversions menu



- 4 From the For all conversions menu, run tvp0.p, Compile tv Data Conversion Programs.

- 5 When tv0.p is finished, choose the Target Version menu option appropriate to your source version database.

For example, to run target version conversion programs for a 7.4 source version database, choose the For 7.3/7.4 conversions menu option.



- 6 The programs you need to run for your conversion depend upon your target version and the features you plan to implement.

You can run the conversion programs one at a time from the appropriate Target Version menu option or in groups using the Run Programs In Groups menu.

For a list of target version conversion programs, use the following section that corresponds to your source version.

◆ For program details, see Chapter 9, “Conversion Program Reference,” on page 161.

Note Some programs may not appear, depending on what source version you are converting, which is detected automatically.

Conversions from Version 7.4

- Run the following required programs.

Program	Title
tvp6.p	Menu Update to qad_wkfl
tvp8.p	Multi-Language
tvcuex.p	Pre-Euro Data Conversion
tvcd1.p	Currency Dependent Rounding Note: Read Chapter 9, “Conversion Program Reference,” before running this conversion.
tvtri.p	Euro Data Conversion Note: You must run tvceex.p and tvcd1.p before running the Euro Data Conversion.

- Run these programs to implement the applicable feature for the first time.

Program	Title	Feature
tvp2.p	Fix RCPT STAT /W. Orders Note: Some errors may be generated by this program if you have qad_wkfl records that have already been converted to the Advanced Repetitive format. You can safely ignore these errors.	Compliance
tvp3.p	Mix Variance on Product Lines/W. Orders	Co-products/By-products
tvp4.p	Price List Conversion	Sales Order Pricing
tvp5.p	Price List History Conversion	Sales Order Pricing
tvp7.p	Bank Detail Conversion	
tvp9.p	Field Service Conversion Note: Read Chapter 9, “Conversion Program Reference,” before running this conversion.	Service/Support Management
tvers.p	ERS Conversion	Evaluated Receipts Settlement
tv86gs1.p	Global Shipping Conversion	Global Shipping
tvgtm.p	Global Tax Management Conversion	Global Tax Management
tvpsc0.p	PCC Conversion	Product Change Control

Conversions from Versions 8.5

- Run the following required programs.

Program	Title
tvcuex.p	Pre-Euro Data Conversion
tvtri.p	Euro Data Conversion Note: You must run tvcuex.p (Pre-Euro Data Conversion) before running the Euro Data Conversion.

- Run these programs to implement the applicable feature for the first time.

Program	Title	Feature
tv86gs1.p	Global Shipping Conversion	Global Shipping
tvgtm.p	Global Tax Management Conversion	Global Tax Management
tvpsc0.p	PCC Conversion	Product Change Control

Conversions from Versions 8.6

- Run the required tvecg . p, ECommerce Data Conversion program.
- If you are converting from 8.6B, C, or D, run the following required programs.

Warning If you are converting from 8.6E, *do not run* these programs. The euro functionality implemented by these conversions is already present in your 8.6E database; the conversions will eliminate any data associated with this functionality.

Program	Title
tvcuex.p	Pre-Euro Data Conversion
tvtri.p	Euro Data Conversion Note: You must run tvcuex.p (Pre-Euro Data Conversion) before running the Euro Data Conversion.

- If you are converting from 8.6C, and have the Logistics API implemented, run tvp10 . p, Logistics Data Conversion program.
- If you are converting from 8.6D, run tvsite . p, Supplier Performance Conversion program.

- 7 Exit MFG/CONV by choosing Exit from the Exit menu.

10: Performing Post-Conversion Steps

◆ For a list of data verification reports, see “2: Preparing Reports for Data Verification” on page 115.

- 1 Start a target version session.
- 2 Run the database sequence initialization program, `utsequp.p`. This program initializes any sequences that have been introduced in the target MFG/PRO version. Type `utsequp.p` at any menu level prompt.
- 3 Run the same reports you ran against the source version database and compare them. There should be no data conflicts.
- 4 See the *MFG/PRO Release Bulletin* for additional conversion utilities required for the modules you use. These additional conversion utilities, which are related to a particular programming patch (ECO), correct possible corruptions in your data.
- 5 Perform a full system backup.

Loading Service Pack Media

◆ See “Loading Service Pack Media” on page 8.

QAD Service Packs provide MFG/PRO updates between lettered releases. If you are converting to a release of MFG/PRO that has a Service Pack, use the information in following section to implement these updates. If your target version MFG/PRO does not have a Service Pack, skip this section.

◆ See “Conversion Overview” on page 108.

◆ See “Conversion Overview” on page 108.

- 1 If you performed a full conversion, load the Service pack media during the installation of your target version database server and client.
- 2 If you are performing an incremental conversion, your gui, help, and configurator databases were updated with the Service Pack files during the installation of your target version database server and client. Because your target version production database was generated from your source version database, it was never updated with the Service Pack files. To update it, use the installation instructions that accompany the Service Pack Server media.

MRP to Repetitive Approval

To implement the MRP to Repetitive Approval functionality introduced in MFG/PRO Version 9.0, complete the following steps. For more information on this functionality, see the Features and Changes in Version 9.0 chapter of the *MFG/PRO Release Bulletin*.

- 1 To implement MRP to Repetitive functionality, run the Production Line Update utility (18.25.4 or 18.22.25.4) after completing your conversion or upgrade. Run this utility for all sites and items that were defined using Production Line Maintenance (18.1.1 or 18.22.1.1).
- 2 If you have set up generalized codes for the Pur/Mfg field, you must add L (line manufactured) as a valid item code for that field using Generalized Code Maintenance (36.2.13).
- 3 There are two options for converting existing item Pur/Mfg codes to L (line manufacture). An existing item's code can be changed individually from manufactured, purchased, or any other valid 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 automatically.

- a Create a list of items and their corresponding item numbers that you want to designate with the line manufacture (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 (1.4.1—ppptmt.p) or, for site-specific items, Item-Site Maintenance (1.4.17—pppsmt.p).

In the following example, the Item Planning Maintenance program (ppptmt.p) is called, 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
```

▶ For more information, see the CIM interface chapter in *MFG/PRO User Guide Volume 11: Manager Functions*.

- c When you have completed your CIM file, save it to your MFG/PRO client working directory.
- d Perform a CIM data load using this file.

ISO 8601 Utilities

If you are converting from MFG/PRO Version 8.6D or higher, you can 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 only be run once. If your data has already been converted, the utilities will not reconvert it.

- 1 Run the `utfc8601.p` utility. This utility will remap 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 enables you to 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 utility will remap 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 enables you to 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.

If You Performed Global Shipping Conversion

- 1 Determine if any custom shipper print programs are in use. Custom shipper programs are of the form `rcrp13NN.p`, where `NN` is any two-character form code string, except "01" (`rcrp1301.p` is the pre-MFG/PRO Version 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 document format associated with the standard form code "01" is assigned to all shippers during the conversion; the mass change utility is only needed for those shippers requiring a custom print program.
- 3 The conversion utility created 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 the Sales Order Control File (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 after the conversion.

If You Performed SSM Conversion

- 1 Review and correct any error messages displayed in the conversion log.
- 2 If you chose to convert service charge types, review the resulting service type coverage.
- 3 If you use engineer scheduling, execute the Rebuild Engineer Schedule utility (11.25.6) to recalculate engineer schedules.
- 4 If you maintain an installed base, execute the Installed Config File Rebuild utility (11.3.23) to rebuild installed base parent/child relationship information correctly.
- 5 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. Also, see *MFG/PRO User Guide Volume 8: Service/Support Management* for information on the conversion utilities used to implement the time zone feature.

Utility	Menu	Description
uxengad.p	11.13.25	Initialize Engineer Addresses
uxsadprl.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

- 6 If converting SSM from MFG/PRO 8.5, run the following utilities as well.

Utility	Menu	Description
uxfs8601.p	36.27.3	Service GTM Conversion: This utility moves variables in the Billing Detail and Billing History files used to support Global Tax Management and Canadian taxes into their proper new database position. If this utility is run more than once, the user's data will not be jeopardized; however, you should run it 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 9.0, they are stored in a new file reserved for SSM (fusr_mstr). This utility moves preferences from one file to the other.
uxusertz.p	11.21.22.25	Initialize User TZ from Engineer: Only required if you used the MTZ option in Version 8.5. In MFG/PRO 8.5, users had to be set up as engineers to define a time preference. In MFG/PRO 9.0, 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 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, so 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 the *MFG/PRO User Guide Volume 8: Service/Support Management*.

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

If You Performed Sales Order Pricing Conversion

If you ran the conversion program tvp4.p (Price List Conversion), you must run the Analysis Code Detail Build (1.8.19) to process the analysis codes created by tvp4.p.

The Analysis Code Detail Build generates the link between the analysis codes and the actual customers.

If You Performed Product Change Control (PCC) Conversion

After running the PCC conversion utility, 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)

If You Performed Euro Data Conversion

- 1 Because the default account and cost center information may not be applicable to all currencies, run Currency Maintenance (26.1) to customize exchange gain, loss, and rounding accounts and cost centers.
- 2 If your MFG/PRO source version is 7.3 or 7.4, check to ensure the proper rounding method is used for each currency.
For MFG/PRO Version 7.3 and 7.4 conversions to Version 9.0, the default currency rounding 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.

If You Performed Corporate Commodity Codes Conversion

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

If You Performed Supplier Performance Conversion

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

If You Converted from an 8.5D Database

Run the following utilities related to Distribution and Manufacturing programming patches (ECOs).

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

Window Printer Type

To set up the window printer type, in an MFG/PRO Version 9.0 session, open the Printer Utility Menu (36.13.25) and choose item 1, Create Records for Window Output.

11: Restoring Custom Default Data

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

Custom Menus and Messages

You must reenter your custom menu and message information into Version 9.0. 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)

Custom Online Help

- 1 *Prerequisite:* You should have already loaded the MFG/PRO Version 9.0 field help data according to the instructions in Chapter 3, “Database Server Setup,” on page 29.
- 2 Start a single-user session of your Version 9.0 database. Select Field Help Load (36.4.19).

- 3 In the Language field, make sure to enter a language code. For English, the standard language code is us.
- 4 Enter user as the beginning and ending range in the Text Type and To fields.
- 5 The field help dump filename defaults to `fieldhlp.fhd`. You can overwrite this default.
- 6 Press Go to begin the load.

MFG/PRO for Windows Custom Data

Complete these steps if you preserved your custom interface data according to the instructions in “3: Preserving Custom Default Data” on page 116.

- 1 From an MFG/PRO session, access the PROGRESS Editor by choosing the Progress Editor option under the User Menu.
- 2 From the Progress Editor, select the Tools menu and choose Data Administration.
- 3 When the Data Administration window opens, select the Database menu and choose Select Working Database. In the selection window, select qadgui and choose OK.
- 4 In the Data Administration window, select the Admin menu, select Load Data and Definitions, and choose Table Contents (.d File).
- 5 In the Select Tables window, select the following table files and choose OK.

File Name	Description
brw_mstr brwf_det brwt_det	Browse records
drl_mstr	Drill down records
mmts_det	GUI-related data for translated releases of MFG/PRO
uss_mstr	Users’ personal MFG/PRO for Windows settings
utd_det	User tool bar records
vue_mstr vuf_det vwj_det	View records

- 6 When the Load Data Contents window opens, type the path to your source version dump directory in the Input Directory field. Choose OK, and the load process begins.
- 7 When the load is complete, exit the PROGRESS administration tools.
- 8 In the MFG/PRO session, open Browse Maintenance (36.20.12). For each of your custom browses, do the following:
 - a Select a custom browse name in the Name field. Press Go to open the Browse Data frame.
 - 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 the OK button to store your changes. For each custom browse, MFG/PRO creates a source code program, which you must compile in a later step. The naming convention for the source code program is:

xxbr001.p -or- xxlu001.p

xx = first two characters of the browse name

br = br indicates a Power Browse

lu = lu indicates a Look-up Browse

001 = system-assigned number
 - d Exit Browse Maintenance.
- 9 Because browse names changed between MFG/PRO 8.3/8.4 and 8.5, you may need to update custom drill-down records that connect to browses. Open Drill Down Maintenance (36.20.1) and check the browse name in the Procedure to Execute field. For a list of the old and new browse names, see the *MFG/PRO System Administration Reference Guide*.
- 10 If the drill down links to a program that has been rewritten in the objects programming style, you must also use the program name in the Calling Procedure field.
- 11 Exit Drill Down Maintenance.

- 12 Open Menu Substitution Maintenance (36.20.3). Reenter your source version custom menu substitutions.
- 13 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.
- 14 Exit the MFG/PRO session.
- 15 Compile each browse program using MFG/UTIL.
 - a Select the Programs menu and choose Compile Procedures.
 - b Complete the dialog box and choose Compile.

12: Converting GL Report Writer and Intrastat

In Version 9.0, there are no longer separate GL Report Writer or Intrastat databases. If you had the GL Report Writer or Intrastat module implemented, you must follow some additional steps to dump and load the data into the main Version 9.0 database. These steps require that you use PROGRESS 8.3 4GL or ProVISION.

GL Report Writer Files

Table 8.9 lists the database files that need to be dumped from the GL Report Writer database and loaded into the target version production database.

grad_det	grc_mstr	grr_mstr
gral_det	grhd_det	grtx_det
gras_det	grqd_det	grx_mstr
gra_mstr	grrd_det	gr_ctrl
grcd_det		

Table 8.9
GL Report Writer
Files

Intrastat Files

Table 8.10 lists the database files that need to be dumped from the Intrastat database and loaded into the MFG/PRO target version production database.

Table 8.10
Intrastat Files

iec_ctrl	ieh_hist	csid_det
ied_det	ie_mstr	csim_mstr

To Dump and Load Data:

- 1** Create a dump directory for the source version data.
- 2** Use a PROGRESS dump procedure to unload data from the source version GL Report Writer or Intrastat database.
 - a** Start a PROGRESS client session, connecting to either the GL Report Writer or Intrastat database.
 - b** Invoke the PROGRESS dictionary function from the PROGRESS editor.
 - c** Select the Admin menu.
 - d** Select the Data Dump and Definitions menu.
 - e** Select the Table Contents (.d files) menu.
 - f** Select all the files listed.
 - g** Press Go.
 - h** Specify the dump directory.
 - i** Press Go.
 - j** Exit PROGRESS through the Database menu.

- 3** Use a PROGRESS load procedure to load the data into the main MFG/PRO Version 9.0 database. Perform this step after you have successfully completed the conversion.
 - a** Start a PROGRESS client session, connecting to the Version 9.0 main database.
 - b** Invoke the PROGRESS dictionary function from the PROGRESS editor.
 - c** Select the Admin menu.
 - d** Select the Load Data and Definitions menu.
 - e** Select the Table Contents (.d files) menu.
 - f** Select all the files listed.
 - g** Press Go.
 - h** Specify the directory where the dump files reside.
 - i** Leave the Acceptable error percentage set to 0 (zero). (No errors are expected.)
 - j** Press Go.
 - k** Exit PROGRESS through the Database section.

To Synchronize GL Report Writer:

- 4** If you have dumped and loaded a GL Report Writer database, start MFG/PRO and execute menu item Synchronize G/L Data (25.21.21).
 - a** Enter the first G/L calendar year/period in the system in the Begin with Period field.
 - b** Enter the current G/L Calendar year/period in the Calculate Balances Through field, unless some other ending date is appropriate for your implementation.

13: Converting Operations Planning

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

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

Conversion Program Reference

<i>Conversion Program Overview</i>	162
<i>Compliance</i>	163
<i>Co-products/By-products</i>	164
<i>Sales Order Pricing: Price List Conversion</i>	165
<i>Sales Order Pricing: Price List History Conversion</i>	166
<i>Service/Support Management (SSM)</i>	167
<i>Currency Dependent Rounding (CDR)</i>	168
<i>Evaluated Receipts Settlement (ERS) Conversion</i>	172
<i>Global Shipping</i>	173
<i>Global Tax Management Conversion</i>	175
<i>Product Change Control (PCC) Conversion</i>	177
<i>Euro Data Conversion</i>	179
<i>Corporate Commodity Codes</i>	183
<i>Supplier Performance Conversion</i>	183
<i>Logistics Data Conversion</i>	185
<i>ECommerce Data Conversion</i>	186

Conversion Program Overview

This chapter describes many of the conversion programs you run against the target version database. Some of these programs are optional, depending on which target version features you plan to implement. Table 9.1 lists the programs included in this chapter.

Table 9.1
Conversion
Programs

For Features Introduced with Version 8.5:		
tv2.p	Fix RCPT STAT /W. Orders	Compliance feature
tv3.p	Mix Variance on Product Lines/ W. Orders	Co-products/By-products feature
tv4.p	Price List Conversion	Sales Order Pricing feature
tv5.p	Price List History Conversion	Sales Order Pricing feature
tv9.p	Field Service Conversion	Service/Support Management feature
tvcd1.p	Currency Decimal Rounding	Currency Dependent Rounding
tvrs.p	ERS Conversion	Evaluated Receipts Settlement
For Features Introduced with Version 8.6:		
tv86gs1.p	Global Shipping Conversion	Version 8.6 Shipping Feature
tvgtm.p	Global Tax Management Conversion	Global Tax Management feature
tvpc0.p	PCC Conversion	Product Change Control feature
tvtri.p	Euro Data Conversion	Euro and Multi-Currency Exchange feature
tvcomcd.p	Corporate Commodity Codes	Corporate Commodity Code feature
For Features Introduced with Version 9.0:		
tvsite.p	Supplier Performance Conversion	Supplier Performance feature
tv10.p	Logistics Data Conversion	Universal Logistics API
tvcecg.p	ECommerce Data Conversion	ECommerce Gateway feature

Compliance

Conversion Procedure: tvp2.p, Fix RCPT-STAT, WO.

Requirement: Required only if you implement Compliance. Not required if you are converting from MFG/PRO Version 8.5 or higher.

Compliance Documentation: *MFG/PRO User Guide Volume 9: Compliance.*

Purpose

This conversion moves various fields from the work file to new locations in the database schema in order to comply with the new Compliance programs.

Outcome

The conversion mainly affects where records are stored in the database. However, it also creates the Compliance control file (clc_ctrl) if it does not exist and sets both the Modify Co-products/By-products Receipt flag and Modify Component Issue flag to Yes.

Finally, the conversion sets the Lot Control Level flag to zero, which indicates that the lot/serial numbers allow for duplication. If you later change this setting to either one or two (indicating a level of uniqueness), you must run Lot Master File Build (1.22.22) to update the Lot Master file.

New Database Elements

- Various work order fields in wo_mstr
- Various work order rounding fields in wr_route
- Various standard routing fields in ro_det
- pt_rctpo_status, pt_rctpo_active, pt_rctwo_status, and pt_rctwo_active
- in_rctpo_status, in_rctpo_active, in_rctwo_status, and in_rctwo_active

Co-products/By-products

Conversion Procedure: tvp3.p, Mix Variance on Product Lines/W. Orders.

Requirement: Required only if you implement Co-products/By-products. Not required if you are converting from MFG/PRO Version 8.5 or higher.

Documentation: *MFG/PRO User Guide Volume 3: Manufacturing.*

Purpose

This conversion updates the Mix Variance Account values for product lines and work orders.

Outcome

For every product line where the Mix Variance Account is blank, the conversion updates the product line using the default Mix Variance Account from the System/Account Control File.

For every work order where the Mix Variance Account is blank, the conversion locates its product line based upon the item number of the work order and updates the work order's Mix Variance Account from the product line's mix variance account.

New Database Elements

- gl_xvar_acct
- gl_xvar_cc
- pl_xvar_acct
- pl_xvar_cc
- wo_xvar_acct
- wo_xvar_cc

Sales Order Pricing: Price List Conversion

Conversion Procedure: tvp4.p, Price List Conversion.

Requirement: Optional. Not required if you are converting from Version 8.5 or higher.

Sales Order Price Documentation: *MFG/PRO User Guide Volume 6: Master Files.*

Purpose

The purpose of the price list conversion is to provide a bridge to support the pricing requirements of the new release until the new price lists are developed.

The use of this conversion utility is to be considered short term in its benefit. The greater, long-term benefit will be to develop price lists based on the categorization of customers and items using the new analysis code functionality.

Note Conversion of price lists is not required if you instead develop new price lists after implementing Version 9.0.

Outcome

In order to minimize the number of new price lists to be created (in most cases, for every source version price list a Version 9.0 price list will be 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.

If a converted price list utilized a product line, the item code is set to the product line, or the item number is used. Be aware that any future use of this price list based on a product line item code will require the execution of Analysis Code Detail Build (1.8.19) in order to establish product line-to-item relationships that the new pricing functionality tests for.

If the converted price list is not associated to any customer, customer code will represent *all* (effectively blank); then the price list will be set to a status of *manual* or it will be considered *automatic*.

New Database Elements

- an_mstr
- ans_det
- pid_det
- pih_hist
- pi_mstr

Sales Order Pricing: Price List History Conversion

Conversion Procedure: tvp5.p, Price List History Conversion.

Requirement: Required only if you implement Sales Order Pricing. Not required if you are converting from MFG/PRO Version 8.5 or higher.

Sales Order Price Documentation: *MFG/PRO User Guide Volume 6: Master Files.*

Purpose

The second Sales Order conversion utility creates price list history.

Outcome

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 now posted to the General Ledger from price list history when the source of the order is from the Sales Order module.

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

Service/Support Management (SSM)

Conversion Procedure: tvp9.p, Field Service Conversion.

Requirement: Required only if you implement SSM. Not required if you are converting from MFG/PRO Version 8.5 or higher.

SSM Documentation: *MFG/PRO User Guide Volumes 8A and 8B: Service/Support Management.*

Purpose

The conversion program adjusts the format of existing data from Field Service (prior to Version 8.5) to SSM (Version 8.5 and higher).

Outcome

The Field Service conversion can convert the service charge types in your source version into the new way they are defined in SSM (Version 8.5 and higher). As prerequisites, you should have:

- Set up codes in MFG/PRO Version 9.0 that the conversion program can use to map your service charge types into the new way they are defined in SSM.
- Completed the appropriate prompts in MFG/CONV regarding service charge types.

The conversion can also update existing product lines with account numbers for the new service accounts and cost centers. As a prerequisite, you should have defined default service accounts in the System Account Control File (36.1) for the Version 9.0 database.

Currency Dependent Rounding (CDR)

Conversion Procedure: tvcdr1.p, Currency Decimal Rounding.

Requirement:

- Required if you implement CDR.
- Required if you are converting from Version 7.4 to Version 9.0.
- Not required for conversions from versions 8.5 or higher.

CDR Documentation: *MFG/PRO User Guide Volume 6: Master Files.*

Purpose

If you are implementing new rounding methods through the Currency Dependent Rounding (CDR) feature, you can use this conversion program to apply the new rounding methods to existing transactions, GL balances, and history files. Examples of new rounding methods include:

- One or zero decimals, rather than the default two decimals forced by earlier versions of MFG/PRO.
- Two decimals with a nonstandard rounding threshold. For example, a threshold of .000 would mean amounts with any fractional currency unit are rounded up.

By running this conversion, existing transactions that appear on financial and other statements will follow the same rounding method as new transactions. There are, however, some exceptions; see “Externally Reported Records” on page 169 for details.

Program Operations Summary

The CDR conversion program rounds existing records in the following files:

- Posted and unposted transaction files
- Various history files

Note Transaction and history records comprise the largest file sets in MFG/PRO. Be prepared for this utility to run a very long time, depending on the amount of data and history you have on your system.

The conversion program rounds these records according to the new rounding method you have created for the base currency. (For more information regarding non-base currencies, see “Non-Base Currency Accounts” on page 171.) Rounding method records are created in Rounding Method Maintenance (36.3.9). If you do not have any rounding methods when you run this conversion, it will create three default rounding methods by running the program `uxcnvrnd.p`.

In addition, the conversion program does the following:

- It posts GL adjustments to balance the rounding to posted GL transaction records. You can specify the accounts used for these adjustments in MFG/CONV. To review the resulting transactions, run Transaction Register (25.13.21) after running the CDR Conversion program.
- It moves any existing rounding method records into the new tables set up for CDR. Existing rounding method records include the Rounding Factor from the System/Account Control File, which was set up for Global Tax Management or GL Report Writer or both. These other modules now use the rounding methods set up in Rounding Method Maintenance (36.3.9).
- It creates a report on the changes it makes. You can also specify whether to only generate the report or to update the database as well.

Externally Reported Records

The CDR conversion program does not round the amounts for *externally reported* records, such as the records for invoices, purchase orders, drafts, vouchers, and checks. The affiliated tax records are also not rounded. These records are not rounded because they appear on documents presented to outside third parties. These are legal documents that must be honored as they were originally recorded and distributed.

However, the CDR conversion program does round the posted and unposted GL transactions created for these externally reported records. After the GL transaction records are rounded, discrepancies may exist between currently open transactions and the GL transaction records. Examples of cases where such discrepancies will become apparent include:

- A bank statement dated prior to the MFG/PRO conversion is received after conversion, and the user wants to reconcile it against the MFG/PRO bank transactions.
- An invoice is received after conversion for purchases made prior to conversion, and the user wants to issue a payment against that invoice.
- A payment is received after conversion for sales invoiced prior to conversion, and the user wants to mark the invoice as fully paid.

Note Such situations will diminish over time as all transactions straddling the conversion date are completed, posted, and closed out.

MFG/PRO will correct these discrepancies by posting an adjustment to a Price Variance account, unless you override the default account at the time of posting. The Price Variance account is what MFG/PRO typically uses for price discrepancies introduced by a third party.

If you want to override the default adjustment to the Price Variance account, you must enter a manual adjustment in Standard Transaction Maintenance (25.13.1). Be aware that all of the GL transaction maintenance procedures will force you to adhere to the decimal precision of the base currency. For example, if your base currency has a decimal precision of zero decimals, you will not be able to enter an adjusting entry of \$0.17. You must first go into System/Account Control File (36.1) and set the base currency decimal precision (Rounding Method) to 2 before you can enter two-decimal amounts in any GL transaction maintenance procedure.

Externally Reported Records and History Files

For MFG/PRO history files, the CDR conversion will round all history amounts, including amounts for externally reported records. It does this so that history reports correspond more closely to the rounded amounts on GL reports. Because history amounts are used internally, rounding the externally reported records will not impact your company's legal obligations to outside third parties.

Non-Base Currency Accounts

MFG/PRO typically tracks non-base currency accounts in both the non-base and base currencies. It also stores the transaction exchange rate initially used to calculate one value from the other.

However, this exchange rate is more for historical interest and is not updated to reflect current conditions. Because currency exchange rates constantly fluctuate, the two amounts, once calculated and stored, cease to bear any real relationship to each other. This condition is aggravated with CDR rounding because the rounding of the amounts causes a further deviation from the actual exchange rate used in these calculations.

For these reasons, the CDR conversion program will simply round the base and non-base amounts separately without attempting to reconcile the amounts per any exchange rate.

Be aware that rounding *variances* on non-base currency accounts will be taken only against the base currency amount. Non-base currency variances are not tracked by MFG/PRO in the General Ledger and will be ignored.

In the cases where non-base accounts are revalued to base currency, the CDR conversion program will round the non-base currency amount, multiply it by the current exchange rate to produce an unrounded base currency amount, and round this base amount. This rounded base amount is then used to calculate any revaluation variances.

Update of History Files

Many of the *h_hist files (such as sah_hist [Sales Analysis]) track history by accumulating balances in monthly or weekly “bucket” fields. As transactions are completed, individual transaction amounts are added to the appropriate balance based on the date of the transaction.

The CDR conversion program recalculates these balances once the underlying transactions have been rounded. Balances of transactions that have been deleted from the system will be left untouched in their pre-CDR-rounded state; they will not be rounded by the CDR conversion program.

To run the CDR conversion program (tvcd1.p), you must answer various questions in the Set Up Environment option, under the Initial menu.

Evaluated Receipts Settlement (ERS) Conversion

Conversion Procedure: tvers.p, ERS Conversion.

Requirement: Required only if you implement ERS. Not required if you are converting from Version 8.5 or higher.

ERS Documentation: *MFG/PRO User Guide Volume 4: Financials*.

Purpose

These conversion programs create and modify records to enable you to use the Evaluated Receipts Settlement (ERS) feature.

Program Operations

The tvers.p program creates records for every site and supplier in the current database. The conversion program sets the ERS option on all purchase orders to 1, signifying that ERS processing is not allowed.

Conversion Prompt

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 will modify existing purchase order records to be enabled for the ERS feature. If you answer No, purchase orders will not be enabled.

Global Shipping

Conversion Procedure: tv86gs1.p, Global Shipping Conversion.

Requirement: Required if you implement the Global Shipping. Not required if you are converting from Version 8.6.

Shipping Documentation: *MFG/PRO User Guide Volume 2: Distribution.*

Purpose

This conversion updates the database to comply with MFG/PRO shipping requirements. This includes creating and assigning NRM sequences and document formats for new and existing shipping documents, and creating and assigning company address records for existing shipping site records. There are various other specific changes to the database, as described in the “Outcome” section.

Outcome

The Global Shipping conversion utility makes the following updates to the database in compliance with MFG/PRO requirements:

- Creates default NRM sequences for pre-shipper, shipper, and master bill of lading numbers, based on the Next Pre-Shipper, Next Shipper, and Next Master Bill fields in the Container/Shipper Control File (7.11.24). These default sequences will be used for all subsequent pre-shippers, shippers, and master bills of lading created without an inventory movement code or an available shipping group.

- Assigns NRM sequences to all existing pre-shippers, shippers, and master bills of lading. If no NRM sequence exists matching the format of an assigned sequence number, the sequence number is reassigned using a new NRM sequence created specifically to track reassigned pre-shippers, shippers, or master bills. NRM sequences are also assigned for pre-shipper numbers stored for converted shippers.
- Creates document formats for existing shipper print procedures. The system searches for procedure names that follow the form *rcrp13xx.p*, where *xx* is any non-blank two-character string.
- Assigns document formats to existing shippers and pre-shippers. The system assigns the first existing document format using the default form code of 01. You can reassign document formats using the Shipper Document Format Mass Change Utility (2.18.25) following the conversion.
- Creates company address records for all sites without corresponding address records that are in use by existing shippers. All fields in the new address records are copied from the default company address specified in the Sales Order Control File (7.1.24). For sites with a corresponding address record other than a company address, the system flags the address as a company address by adding a *company* type record to the *ls_mstr* table.
- Assigns language codes to existing shippers and pre-shippers, based on the language code specified in the *ship-to* address record of the shipper.
- Copies the originating pre-shipper number embedded in the *abs_qad01* field to the *abs_preship_id* field for all existing shipper records.
- Creates a *carrier* address list type that is reserved by the system for identification of carrier addresses. First, the system checks if such a list type exists; if so, you can change the type to any string. If you do not change the type, all addresses associated with it become usable as carrier addresses.

Global Tax Management Conversion

Conversion Procedure: tvgtm.p, Global Tax Management Conversion.

Requirement: Required for the Tax Compliance feature, if Global Tax Management (GTM) was used prior to conversion. Not required if you are converting from Version 8.6.

Tax Compliance Documentation: *MFG/PRO User Guide Volume 11: Manager Functions.*

Purpose

Changes introduced by the MFG/PRO Version 8.6 Tax Compliance feature require some data conversion, but only if you have been using GTM. This conversion moves various fields in tables txc_ctrl, tx2_mstr, and tx2d_det so that future maintenance is easier.

Outcome

The conversion only affects the location of the data within the database and not the data itself. The following tables explain how the data is moved.

In tx2_mstr, Tax Rate Master:

New Field:	Data Moved From:
tx2_ar_acct	tx2_acct[1]
tx2_ar_cc	tx2_cc[1]
tx2_ap_acct	tx2_acct[2]
tx2_ap_cc	tx2_cc[2]
tx2_ara_acct	substring(tx2__qad02,1,8)
tx2_ara_cc	substring(tx2__qad02,9,4)
tx2_ara_use	substring(tx2__qad02,14,1) = "y"
tx2_apr_acct	substring(tx2__qad01,1,8)
tx2_apr_cc	substring(tx2__qad01,9,4)
tx2_apr_use	substring(tx2__qad02,15,1) = "y"
tx2_tax_in	tx2__qad03
tx2_exp_date	tx2__qad05

In txc_ctrl, Tax Management Control File:

New Field:	Data Moved From:
txc_tax_zone	substring(txc__chr02,1,16)
txc_tax_env	substring(txc__chr02,17,16)
txc_detrp	txc__qad03

In tx2d_det, Tax Detail:

New Field:	Data Moved From:
tx2d_tax_env	substring(tx2d__qad01,1,16)
tx2d_zone_from	substring(tx2d__qad01,17,16)
tx2d_zone_to	substring(tx2d__qad01,33,16)
tx2d_tax_type	substring(tx2d__qad01,49,16)
tx2d_trans_ent	substring(tx2d__qad02,1,4)
tx2d_line_site_ent	substring(tx2d__qad02,9,4)
tx2d_taxc	substring(tx2d__qad02,17,3)
tx2d_tax_usage	substring(tx2d__qad02,25,8)
tx2d_tax_in	substring(tx2d__qad02,33,1) = "y"
tx2d_by_line	substring(tx2d__qad02,34,1) = "y"
tx2d_edited	tx2d__qad03
tx2d_posted_date	tx2d__qad05
tx2d_cur_tax_amt	tx2d_taxamt[1]
tx2d_tax_amt	tx2d_taxamt[2]
tx2d_ent_tax_amt	tx2d_taxamt[3]
tx2d_cur_nontax_amt	tx2d_ntaxamt[1]
tx2d_nontax_amt	tx2d_ntaxamt[2]
tx2d_ent_nontax_amt	tx2d_ntaxamt[3]
tx2d_taxable_amt	tx2d_ntaxamt[4]
tx2d_cur_recov_amt	tx2d_ntaxamt[5]
tx2d_recov_amt	tx2d_ntaxamt[6]
tx2d_ent_recov_amt	tx2d_ntaxamt[7]
tx2d_cur_abs_ret_amt	tx2d_ntaxamt[8]
tx2d_abs_ret_amt	tx2d_ntaxamt[9]
tx2d_ent_abs_ret_amt	tx2d_ntaxamt[10]

Product Change Control (PCC) Conversion

Conversion Procedure: tvpcc0.p, PCC Conversion.

Requirement: Required only if you implement the Product Change Control module.

PCC Documentation: *MFG/PRO User Guide Volume 6: Master Files.*

Purpose

The PCC conversion moves Engineering Change data to new locations within the database. The data itself remains the same; only the location changes.

Outcome

The conversion performs a variety of data movements.

- Moves the records that are stored in the Engineering Change—Master Lists (ecl_list) table to the new Product Change List—Master and Detail Tables (pcl_mstr and pcl_det).
- Moves various fields in the Engineering Change Master table to new fields in the same table. The following list maps the new storage fields to old ones.

New Field Name	Data Moved From:
ecm_doc_type	ecm__qad03
ecm_appr_date	ecm__qad04
ecm_selected_eff	ecm__qad05
ecm_batched	ecm__qad06
ecm_reprocess	ecm__qad07

- Moves the records from the Engineering Change Approval Master (eca_mstr) to the new Routing Slip Template Master (rst_mstr) and Detail (rstd_det) tables.

- Moves all existing approvals stored in the Engineering Change Detail—Approvals table (ecd9_det) into the new Routing Slip Used Master (rsu_mstr) and Routing Slip Used Detail (rsud_det) tables. The following list maps the new storage fields to old ones.

New Field Name	Data Moved From:
rsu_doc_nbr	ecd9_nbr
rsu_doc_type	
rsu_index	
rsud_index	
rsu_appr_date	
rsud_svrty_lvl	ecd9__qad03
rsud_canreroute	ecd9__qad04
rsud_approved	ecd9_approved
rsud_appr_date	ecd9_appr_date
rsud_cmtindx	ecd9_cmtindx
rsud_group	ecd9_group
rsud_user1	ecd9_user1
rsud_user2	ecd9_user2
rsud_sequence	ecd9_seq
rsud_approverid	ecd9__qad05

- Moves records from the ECN Type table (ect_mstr) to the new Product Change Type master table (pct_mstr). The pct_mstr table also includes new fields that will not be populated by this conversion. The mapping of the fields from the ect_mstr table to the pct_mstr table are identical except in the condition specified by this PROGRESS 4GL statement:

```
pct_doc_type = (if ect_qad01 = yes then "PCR" else "PCO").
```

- Moves the control file settings from the work file (qad_wkfl) and ECN Control File (mfc_ctrl) tables into the new PCC Control Table (pcc_ctrl). Some of the settings in mfc_ctrl are still maintained there, but they are replicated in pcc_ctrl for easier reference by the PCC programs. The following table maps the new storage fields to old ones in qad_wkfl. The conversion affects records where qad_key1 “ECN-CTRL”.

New Field Name	Data Moved From:
pcc_auto_nbr	qad_key3
pcc_cmnt_type	qad_key4
pcc_security_on	qad_key5
pcc_max_wkfl	qad_decfld[15]
pcc_initial_date	qad_datefld[1]
pcc_ecooff_date	qad_datefld[2]
pcc_pco_pre[1..12]	qad_charfld[1..12]
pcc_next_pco[1..12]	qad_decfld[1..12]
pcc_struct_ok	
pcc_routing_ok	
pcc_quality_ok	

Euro Data Conversion

Conversion Procedure: tvtri.p, Euro Data Conversion.

Requirement: This conversion is not required if you are converting from 8.6E. It is required for all other conversions to Version 9.0.

Warning Do not perform this conversion if you are converting an MFG/PRO 8.6E database to 9.0. This conversion will eliminate existing data.

Euro Currency Documentation: *MFG/PRO User Guide Volume 4: Financials.*

Purpose

The conversion populates the target version database with data pertinent to the euro functionality introduced in MFG/PRO Version 8.6E. This includes procedures to comply with new 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 functionality in the target version.

Outcome

The conversion makes the following updates to the target database.

- Defines default accounts and cost centers in the target version System/Account Control File for storing currency exchange gain, loss, and rounding information.
- Converts the source version Currency Master (ex_mstr) and Exchange Rate Detail (exd_det) records. The following table maps the new record to the old.

New Record Name	Data Moved from:
Currency Master (cu_master)	Currency Master (ex_mstr)
Exchange Rate (exr_rate)	Exchange Rate Detail (exd_det)

- If a base currency was not defined in the source version Currency Master (ex_mstr), the program creates a Currency Master (cu_mstr) record for the base currency using the System/Account Control file (gl_ctrl).
- Converts non-base currency amounts from the following tables into base currency amounts and stores them in newly added data fields.

Converted Tables

Accounts Payable Master (ap_mstr)

Accounts Receivable Master (ar_mstr)

Voucher Master (vo_mstr)

Voucher Detail (vod_det)

- If the Euro Toolkit was implemented in your source version, the conversion transfers data from the Control file (mfc_ctrl) and the QAD Work file (qad_wkfl) to the following.

Euro Functionality Control (et_ctrl)

Currency Master (cu_mstr)

Exchange Rate (exr_rate)

New Database Elements

The following files were added to support euro and multicurrency functionality.

All cu_mstr Files		
cu_desc	cu_rgain_cc	cu_user1
cu_rnd_mthd	cu_rloss_acct	cu_user2
cu_active	cu_rloss_cc	cu_qadt01
cu_ugain_acct	cu_ex_rnd_acct	cu_qadt02
cu_ugain_cc	cu_ex_rnd_cc	cu_qadd01
cu_uloss_acct	cu_mod_userid	cu_qadc01
cu_uloss_cc	cu_mod_date	cu_qadl01
cu_rgain_acct		

All et_ctrl Files		
et_base_curr	et_locked	et_qadi03
et_conv_acct	et_rate_active	et_qadl01
et_conv_cc	et_index1	et_qadl02
et_second_curr	et_user1	et_qadl03
et_gl_eff_dt	et_user2	et_qadc01
et_intro_dt	et_qadd01	et_qadc02
et_tk_active	et_qadd02	et_qadc03
et_print_dc	et_qadd03	et_qadt01
et_show_diff	et_qadi01	et_qadt02
et_start_conv	et_qadi02	et_qadt03

All exr_rate Files		
exr_curr1	exr_rate2	exr_user2
exr_curr2	exr_ratetype	ex_qadt01

All exr_rate Files		
exr_start_date	exr_mod_userid	ex_qadd01
exr_end_date	exr_mod_date	ex_qadc01
exr_rate	exr_user1	ex_qadl01

New ap_mstr Files		
ap_ex_rate2	ap_ex_ratetype	ap_base_amt
ap_exru_seq		

New ar_mstr Files		
ar_ex_rate2	ar_base_comm_amt[2]	ar_dd_curr
ar_ex_ratetype	ar_base_comm_amt[3]	ar_dd_ex_rate
ar_base_amt_chg	ar_base_comm_amt[4]	ar_dd_ex_rate2
ar_base_applied	ar_exru_seq	ar_dd_ex_exru_seq
ar_base_comm_amt[1]		

New gl_ctrl Files		
gl_ugain_acct	gl_rgain_acct	gl_rloss_cc
gl_ugain_cc	gl_rgain_cc	gl_ex_rnd_acct
gl_uloss_acct	gl_rloss_acct	gl_ex_rnd_cc
gl_uloss_cc		

New vo_mstr Files		
vo_ex_rate2	vo_base_applied	vo_base_hold_amt
vo_ex_ratetype	vo_base_disc_chg	vo_base_exru_seq
vo_base_amt_chg	vo_base_ndisc	

New vod_det File		
vod_base_amt		

Corporate Commodity Codes

Conversion Procedure: `tvcomcd.p`, Move Corporate Commodity Code and Part.

Requirement: Runs automatically when required.

Purpose

The conversion program moves commodity code data from the source version Part Master (`pt_mstr`) table and QAD work file (`qad.wkfl`) to the target version Corporate Commodity Code (`comd_det`) table.

Outcome

The conversion populates the Corporate Commodity Code (`comd_det`) table with information from Part Master (`pt_master`) and QAD work file (`qad.wkfl`). If the Part Master table and QAD work file do not exist in the source version, the Corporate Commodity Code (`comd_det`) table is created and left empty.

New Database Elements

- Table: `comd_det`
- Fields: `comd_comm_code`, `comd_part`

Supplier Performance Conversion

Conversion Procedure: `tvpsite.p`, Copy Site to Supplier Performance Detail Records.

Requirement: Required if you converting from 8.6D.

Purpose

To include Site in the primary indexes of the Performance Data Master (`vep_mstr`) and Summary Data Master (`ves_mstr`), Site must be defined in the detail records. The conversion program copies Site from the Performance Data Master (`vep_mstr`) and the Summary Data Master

(ves_mstr) to the appropriate detail record: Performance Data Detail (vepd_det) and Summary Data Detail (vesd_det).

Outcome

The conversion performs the following steps.

- 1 Reads the Performance Data Master file (vep_mstr) for Site.
- 2 Reads every Performance Data Detail file (vepd_det) related to the master file and populates the Site field with the value from the master file.
- 3 Repeats steps 1 and 2 until the Performance Data Master file is complete.
- 4 Reads the Summary Data Master file (ves_mstr) for Site.
- 5 Reads every Summary Data Detail file (vesd_det) related to the master file and populates the Site field with the value from the master file.
- 6 Repeats steps 4 and 5 until the Summary Data Master file is complete.

New Database Elements

- Field: vepd_site
- Field: vesd_site

Logistics Data Conversion

Conversion Procedure: tvp10.p, Logistic Data Conversion.

Requirement: Required if you converting from 8.6C with the Universal Logistics API implemented.

Logistics Documentation: *MFG/PRO User Guide Volume 10B: External Interfaces.*

Purpose

This conversion moves various fields from the QAD work file (qad.wkfl) to new locations in the database schema to comply with the MFG/PRO Version 9.0 Logistics programs.

Outcome

The conversion only affects the storage location of records in the MFG/PRO Version 9.0 database.

New Database Elements

- various logistics fields in lgs_mstr
- various logistics site fields in lgsi_det
- various logistics charge fields in lgc_mstr
- ar_app_owner
- ls_app_owner
- pt_app_owner
- so_app_owner
- sod_qty_invc

ECommerce Data Conversion

Conversion Procedure: tvecg.p, ECommerce Data Conversion.

Requirement: Required to avoid processing legacy data when using the ECommerce Gateway functionality in MFG/PRO Version 9.0 for the first time.

ECommerce Documentation: *MFG/PRO User Guide Volume 7: Release Management.*

Purpose

This conversion sets the MFG/PRO Version 9.0 sales order and abs master export flag fields so that legacy records are marked as exported documents and will not be considered when creating new export documents.

Outcome

The conversion only affects the storage location of records in the MFG/PRO Version 9.0 database. The following fields are affected when the tvecg.p program is run.

Modified Fields

- so_export_batch
- so_export_date
- so_export_time
- abs_export_batch
- abs_export_date
- abs_export_time

Installation Reference

This chapter contains optional instructions related to the MFG/PRO installation.

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param91.p 14.13.2 Routing Maintenance (Main Screen)

Routing Code:	10-15000	NONAD(75) CDR IN:
Operation:	20	
Standard Operation		
Work Center	1030	INSPECTION, ALL SITE
Machines		
Description:	INSPEC PER PROX-005	
Machines per Op:	1	Allocation:
Overlap Units:	1	
Queue Time:	1.0	
Wait Time:	0.0	
Setup Time:	0.0	
Route by Production Route		

Adding MFG/PRO Modules

If you purchased add-on modules, QAD typically sends you a complete release including the new modules. Installing the add-on modules involves integrating the programs from the new modules with your existing MFG/PRO installation directory. You do not need to change your production database; it already has the default data for all modules.

Important You should only add modules of the same MFG/PRO version and letter release.

- 1 Load the MFG/PRO add-on server media into a separate, temporary directory. Use the instructions in Chapter 3, “Database Server Setup,” on page 29. However, note the following:
 - Specify the temporary installation directory—not your existing MFG/PRO installation directory.
 - Choose Cancel when the MFG/UTIL Company Information window appears. Also cancel all subsequent windows. This portion of the installation creates databases and start-up icons, which were already created when you installed the first language.
- 2 If you have Windows clients, load the Windows client add-on media into a temporary directory. See Chapter 4, “Loading Client Media,” on page 47. You do not need to set up the client PCs—this function is performed by the `setup.exe` program.
- 3 Back up your existing MFG/PRO system.
- 4 For the database server and Windows client file server, integrate the programs from the add-on media with your existing production system. Use one of the following methods.
 - If you have not made any code modifications, you can copy the language code directory (for example, `us`) from the add-on release into your existing installation directory. This option overwrites your existing programs, both source and compiled.

- If you have modified MFG/PRO code, copy only the new program sub-directories from the add-on module into your existing installation directory. All program directories appear under the two-letter language code directory. For example, if you purchased Advanced Repetitive and your language is English, the additional directory is: *TempInstallDir/us/er*.

You can determine the appropriate program directories by comparing the language code directory trees of the add-on installation and your existing installation.

- 5 Recompile MFG/PRO only if you made customizations.
- 6 Start MFG/PRO to test the installation. You do not need to modify the start-up scripts.
- 7 If you have multiple languages, repeat the previous steps for each language.
- 8 Remove the temporary installation directories for the database server and Windows client media.
- 9 See the MFG/PRO user guides for instructions on implementing the modules you added.

Editing Data Definitions for Schema Update

Follow these instructions if you receive an error while updating the database schema during an incremental conversion. This error condition can occur for large databases if the database before-image file (extension .bi) exceeds the operating system size limit.

The solution is to edit the MFG/PRO 9.0 database definitions and rerun the MFG/UTIL schema update option. The MFG/PRO 9.0 database definitions are structured into separate database definition files, extension .df, which you can further divide as needed. The .df files are listed in the df.ini file, which the MFG/UTIL schema update option references.

Use a text editor to edit the MFG/PRO .df files into more manageable update sections. Then, modify the df.ini file to reference the new files. For example, if your transaction history table (tr_hist) is large, locate in the .df files where tr_hist is updated, cut out those portions, and combine them into one file.

Note When you edit the .df files, be careful to maintain the logical order of the schema updates.

The format of the df.ini is:

7.3,	9.0,	74crc.df, 74x00.df, 85crc.df, 85d02.df, 86crc.df
Version of Source Database	Version of Target Database	Listing of Applicable .df Files

When you have edited the .df files, find the line in the df.ini file that applies to your source and target versions. Then, input the new .df file names on that line, using commas to separate the file names.

Note Do not edit the lines that apply to building from an empty database (indicated by a zero in the source version number section).

Converting a Database's PROGRESS Version

Follow the instructions in this section if you are converting from a PROGRESS 7.x, 8.1, or 8.2 source database. Before running MFG/CONV, convert the source database to PROGRESS 8.3.

The conversion from Version 7.x or 8.x to 8.3 should take only a few minutes because it only affects the database master block.

Each required step in the conversion process is summarized below. For more detailed information, see the PROGRESS documentation.

Prerequisite: You should have already installed PROGRESS Version 8.3 using instructions provided with the PROGRESS software. QAD recommends that you keep both versions of PROGRESS, at least during an interim period.

- 1 Shut down the database server.

All conversion tasks must be performed in single-user mode. If a database server is running for the database, it must be shut down and all users logged out of the database before the conversion is started.

- 2 Back up the databases to be converted.

- 3 Open a DOS session.

- 4 Change to the `bin` sub-directory of your former PROGRESS version's directory. For example:

```
cd c:\dlc7\bin
```

- 5 For all your databases, truncate the before-image (`.bi`) file. Use the following command for each database. Replace *YourDBDir* with the path to your databases and *YourDBName* with the database name. The `-G 0` (zero) parameter begins the truncate immediately.

```
_proutil YourDBDir\YourDBName.db -C truncate bi -G 0
```

- 6 If you have PROGRESS 7.x databases, convert them by entering the following command in the DOS session.

```
_proutil YourDBDir\YourDBName.db -C conv78
```

Respond Yes when asked if you have backed up the database.

- 7 If you have PROGRESS 8.x databases, start your databases using PROGRESS 8.3; they are converted automatically as long as their `.bi` files are truncated.

◆ See step 5.

Command Line Bulkload and Index Rebuild

This section describes an optional method for bulkloading source files and building the database index when performing conversions. If you were required to disconnect from MFG/CONV during your conversion process, a bulkload and index rebuild can be performed from the DOS command line. For example, during an incremental conversion you must exit MFG/CONV in order to update your database schema. In this case, it can be more convenient to bulkload your source files and build your index without reconnecting to MFG/CONV.

To perform a bulkload and index rebuild from the command line, follow the instructions appropriate to your conversion: full or incremental. For more information on conversion types, see “Choose a Full or Incremental Conversion” on page 110.

Bulkload for Full Conversion

- 1 If your source version MFG/PRO database has custom split schemas, complete the sub-steps below; if it has a single schema, skip to step 2.

In the following sub-steps, you must create databases from the .df files created by the MFG/PRO Version 9.0 conversion program (Parse SPL file option). You can use MFG/UTIL to create the databases.

- a To start MFG/UTIL, double-click its icon in the Version 9.0 program group.
- b Select the Database menu and choose Create Database.
- c In the Data Definition File field, specify the path and file name for the .df file created by the MFG/PRO 9.0 conversion program.
- d Choose OK when finished; MFG/UTIL will create the database.
- e Create other databases as needed.

- 2 If you do not have a custom split schema, create your target production database by making a copy of the Version 9.0 mfgempty database. Do not use the source version's mfgempty.db; only a copy of the Version 9.0 mfgempty will work. Give this new database a meaningful name and place it in a directory of your choice.

Open a DOS window, and type the following commands:

```
copy \InstallDir\mfgempty.db DatabaseName.db
```

Note You do not need to copy a .bi file; it will be created during the bulkload.

- 3 Copy the following files from the Version 9.0 directory, under the `.\mfg` sub-directory, to your source version dump directory.

Note The Version 9.0 default dump directory path is:

`.\InstallDir\conv\dumpdir.`

- `flh_mstr.d`
- `lngd_det.d`
- `mnt_det.d`
- `hlp_mstr.d`
- `mnd_det.d`
- `msg_mstr.d`
- `lng_mstr.d`

- 4 If you want a multi-volume database, set it up now according to the standard PROGRESS directions.
- 5 You may want to create a backup of your `.d` files, so you can restore these from the backup, should any data become corrupted during the conversion. Restoring from a backup is faster than performing another dump.
- 6 In a text editor, open the batch file `svbulknt.bat`, located in the `InstallDir\conv` sub-directory. Replace the text string `%DLC%` with the path to your server PROGRESS DLC directory. For example:

```
c:\dlc\bin\_proutil %1 -C bulkload %3
```

Save your changes and close the file.

- 7 Determine the following values, to be used as bulkload parameters:
 - Version 9.0 Installation Directory (*InstallDir*)
 - Version 9.0 database name (*DBName*)
 - Source Version dump directory (*SVDumpDir*)
 - Bulkload file name (*bulkfile.fd*)

This file is created in the `InstallDir\conv` sub-directory by MFG/CONV (`svp6.p` option) and named after your source version database.

- 8 Open a DOS window and change to the `InstallDir\conv` sub-directory.

- 9 From the DOS window, run the bulkload batch file `svbulknt.bat`. Specify the parameters as shown and type them as one line:

```
.\svbulknt \InstallDir\DbName \SVDumpDir
      bulkfile.fd
```

Note When the bulkload runs, ignore the warning: Unable to read .d trailer.

- 10 You can check for any bulkload errors in the `Database.lg`.

Index Rebuild for Full Conversion

- 1 Remove the .d data files from the dump directory in order to free the space needed for the index rebuild. If you have not done so, you may want to back up the .d files first.

- 2 In a text editor, open the batch file `svidxnt.bat`, located in the `InstallDir\conv` sub-directory. Replace the text string `%DLC%` with the path to your server's PROGRESS installation directory. For example:

```
c:\dlc\bin\_proutil %1 -C idxbuild all -TM 30 -TB 30
```

- 3 Save your changes and close the file.
- 4 Open a DOS window and change to the `InstallDir\conv` sub-directory.
- 5 From the DOS window run the index rebuild batch file `svidxnt.bat`.

```
.\svidxnt \InstallDir\DbName
```

- 6 Answer the following prompts as shown:

```
Enter your selection: all
```

```
Do you have enough disk space for index sorting?: y
```

Note If you choose Yes to index sorting and your source version database is greater than three gigabytes, 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.”

Bulkload for Incremental Conversion

- 1 Shut down the database server for your source version database if it is still running. Your source version database should now be ready to load the incremental dump files.
- 2 Copy the following files from the Version 9.0 directory, under the mfg sub-directory, to your source version dump directory.

- flh_mstr.d • lngd_det.d • mnt_det.d
- hlp_mstr.d • mnd_det.d • msg_mstr.d
- lng_mstr.d

- 3 In a text editor, open the batch file `svbulknt.bat`, located in the *InstallDir\conv* sub-directory. Replace the text string `%DLC%` to the actual path to your server PROGRESS DLC directory. For example:

```
c:\dlc\bin\_proutil %1 -C bulkload %3
```

Save your changes and close the file.

- 4 Determine the following values, to be used as bulkload parameters:

- Version 9.0 Installation Directory (*InstallDir*)
- Source version database name (*SVDBName*)
- Source version directory (*SVInstallDir*)
- Source version dump directory (*SVDumpDir*)
- Bulkload file name (*bulkfile.fd*)

This file is created in the *InstallDir\conv* sub-directory by MFG/CONV (svp6.p option) and named after your source version database.

- 5 Open a DOS window and change to the *InstallDir\conv* sub-directory.

- 6 From the DOS window, run the bulkload batch file `svbulknt.bat`. Specify the parameters as shown, and type them as one line:

```
.\svbulknt \SVInstallDir\SVDBName \SVDumpDir
          bulkfile.fd
```

Note When the bulkload runs, ignore the warning: Unable to read .d trailer.

- 7 You can check for any bulkload errors in the `Database.lg` file.

Index Rebuild for Incremental Conversion

- 1 In a text editor, open the batch file `svidxnt.bat`, located in the `InstallDir\conv` sub-directory. Replace the text string `%DLC%` to the actual path to your server PROGRESS DLC directory. For example:

```
c:\dlc\bin\_proutil %1 -C idxbuild all -TM 30 -TB 30
```

Save your changes and close the file.

- 2 Open a DOS window and change to the `SVProDBDir/SVDBName`.
- 3 From the DOS window, run the index rebuild batch file `svidxnt.bat`.

```
.\svidxnt \SVInstallDir\SVDBName
```

- 4 Answer the following prompts as shown:

```
Enter your selection: all
```

```
Do you have enough disk space for index sorting?: y
```

Note If you choose Yes to index sorting and your source version database is greater than three gigabytes, 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.”

CHAPTER 11

PROGRESS ProControl Utility

You can continue managing your MFG/PRO database through the batch files that were created when you installed MFG/PRO for Windows NT. However, databases started using this method are processes and do not run as registered NT services. When you start a PROGRESS Version 8 database with a batch file, you will receive the following PROGRESS warning message: This broker will terminate when the session ends. (5405). This means that the database process will be terminated if you log off of the NT Database Server.

To provide better NT Database Server security and allow for enterprise-wide management of the MFG/PRO databases, you should implement ProControl. This chapter gives you the basic information needed to manage your databases as registered NT services using the PROGRESS Version 8 ProControl Utility.

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ProControl Overview

The ProControl utility is a graphical tool supplied with PROGRESS Windows NT Server. The PROGRESS Windows NT Server enables you to run PROGRESS processes as registered NT services.

ProControl lets you perform these tasks on a local or remote NT host.

- Start and stop ProService.
- Start and stop PROGRESS databases.
- Start and stop PROGRESS DataServer processes.
- Set PROGRESS environment variables.
- Start PROGRESS batch processes.
- Start PROGRESS AppServer processes.

Note All of these tasks result in changes to the NT registry.

Using ProControl to perform these tasks ensures that PROGRESS processes run as registered NT services. Note that you can use the standard set of commands (like BPRO, MBPRO, etc.) from the command line; however, PROGRESS processes started in this way will not run as NT services.

The PROGRESS NT server stores server-specific environment information in the NT registry. Each time you use ProControl to perform an insert, copy, or remove operation within one of the ProControl folders, it updates the appropriate subkey of the PSC subkey of the registry key HKEY_LOCAL_MACHINE. Also, when you use ProControl to perform a remove operation, ProControl removes the registry entries but does not delete the files from the system.

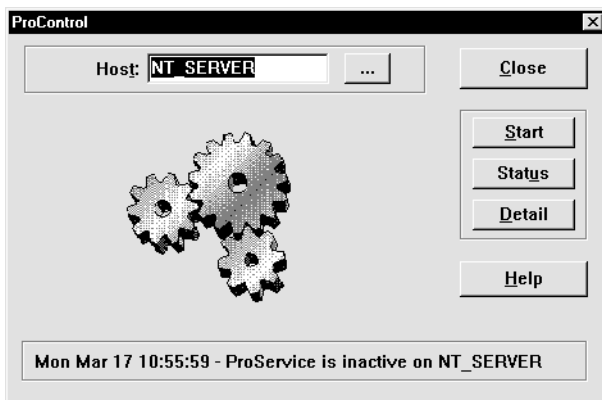
Example Database Setup Using ProControl

Follow this example to learn the basic steps needed to set up the MFG/PRO databases with ProControl.

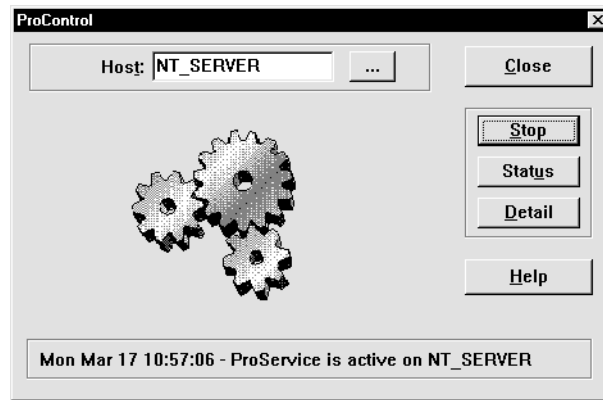
- 1 To start ProControl, do one of the following steps.
 - a Double-click the ProControl icon from the Control Panel or the PROGRESS Program Group. The ProControl icon looks like this:



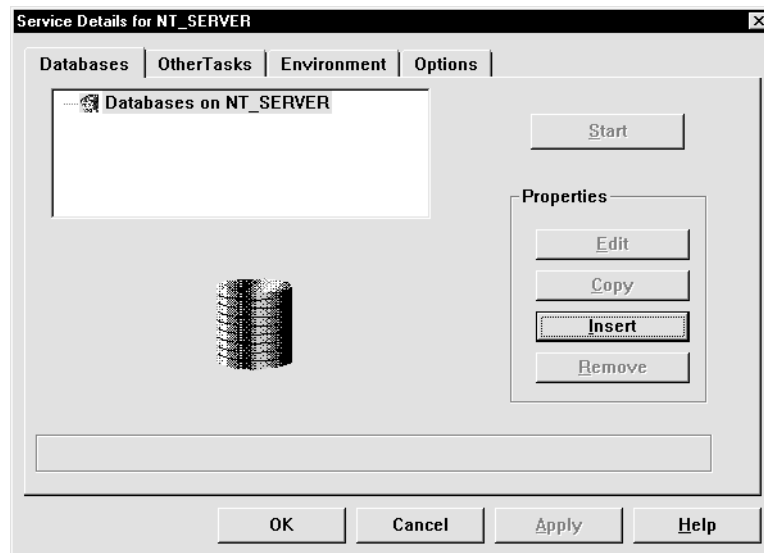
- b From the command line, enter this command:
`ProgressDir\bin\proctrl`
- 2 When the ProControl main window appears, choose the Start button to initialize the ProService.



Note The status information area changes from inactive to active.



- 3 Once the ProService is active, press the Detail button to access the ProControl Detail window.
- 4 Become familiar with the folders of the ProControl Detail window. With these folders you can manage PROGRESS databases, DataServers, and environment variables, as well as perform other database management tasks.



See Table 11.1 for descriptions of the ProControl Detail window folders.

Folder	Description
Databases	Use to add or modify an entry for a PROGRESS database in the Registry.
Other Tasks	Use to run and manage PROGRESS executables or batch processes.
Environment	Use to globally set PROGRESS environment variables.
Options	Use to manage ProControl features such as setting security access, spawning the NT event viewer, setting access to the DataServers folder, and enabling and disabling graphics animation.

Table 11.1
ProControl Detail
Window Folders

Set Up First Database

- 1
- Select the server name and choose the Insert button to open the database setup window.
- 2
- When the Database General folder opens, complete the fields, using the example illustration and table that follow.

Insert on NT_SERVER

General

DB Writers

Environment

Identifiers: MFGDEMO

☐ AutoStart

Executable Name: mprosrv.exe

Working Directory: e:\mfgnt

Physical DB-Name: mfgdemo

Startup Parameters: -B 8000 -L 10000 -N TCP -S mfgdemo

OK

Cancel

Apply

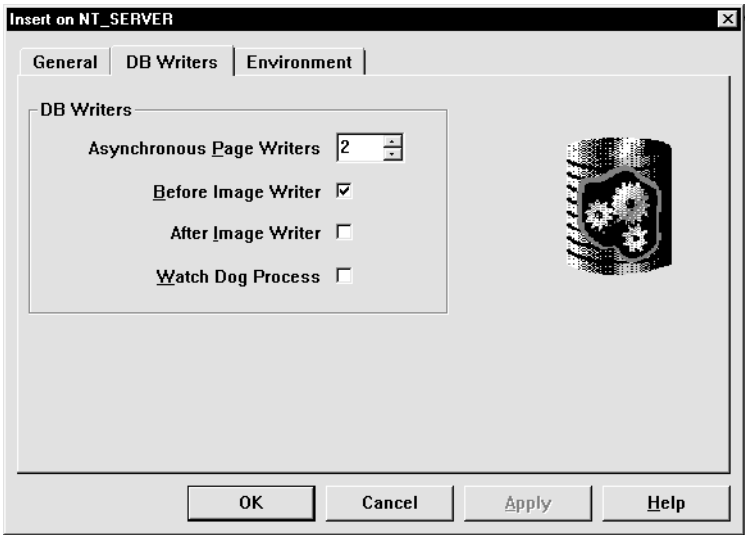
Help

Field	Description
Identifiers:	Provide a unique name to identify the service at which the database runs. The name must be unique to the host. The identifier can be up to 30 characters long and can include spaces. This enables you to give databases descriptive names. This name can be used with the PCCmd Command.
AutoStart:	Activate to cause PROGRESS to start the database service automatically when you start ProService. Additionally, if you want the database service to start when the host is booted, access Services from the Control Panel program group and double-click ProService. In the Startup Type section of the Service window, choose Automatic.
Executable Name:	Specifies the PROGRESS executable. By default, the _mprosrv executable displays.
Working Directory:	Specifies the directory that the service uses during operations, such as writing before-image and after-image files. If you specify a directory other than the directory in which the database resides, you must specify the database's explicit path name in the Physical DB-Name field.
Physical DB-Name:	Specify the database's physical name. If you do not specify a path name, ProControl appends the directory you specified in the Working Directory field.
Startup Parameters:	Specify the PROGRESS server parameters that you want to apply to this service. If you want the database to be visible to a remote host, specify the Service name (-S) and network type (-N) startup parameters for the database. This information can be taken directly from the server batch files that were created during the MFG/PRO server installation process.

3 Choose Apply to save the database entry.

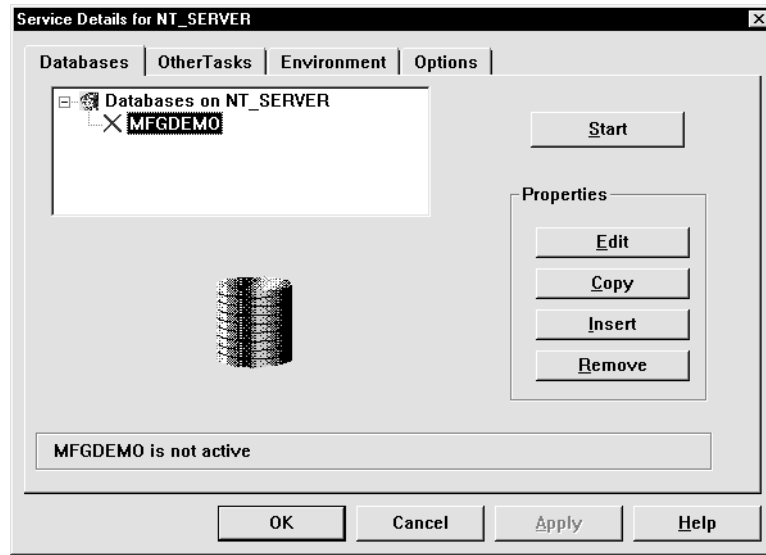
- 4 Choose the DB Writers folder to set values for background writers for an Enterprise server database.

For the main MFG/PRO database, you should initially set Asynchronous Page Writers to 2 and check the Before Image Writer box.



Field	Description
Asynchronous Page Writers	Specify the number of Asynchronous Page Writers for the Database service. The maximum value is 9, the minimum is 0. You should initially set this number to 2 for your main MFG/PRO database.
Before Image Writer	Select this option to turn on Before Image Writer. See the chapters on recovery and backing up and restoring a database in the PROGRESS Administration Guide for information on before-image files. You should activate this feature for your main MFG/PRO database.
After Image Writer	Select this option to turn on After Image Writer for the database service. Note that you must have specified the after-image file name (-a) startup parameter for this database.
Watch Dog Process	Select this option to turn on the Watch Dog Process for the database service.

- 5 Choose OK once you have defined a database. The database entry appears in the ProControl Detail window.

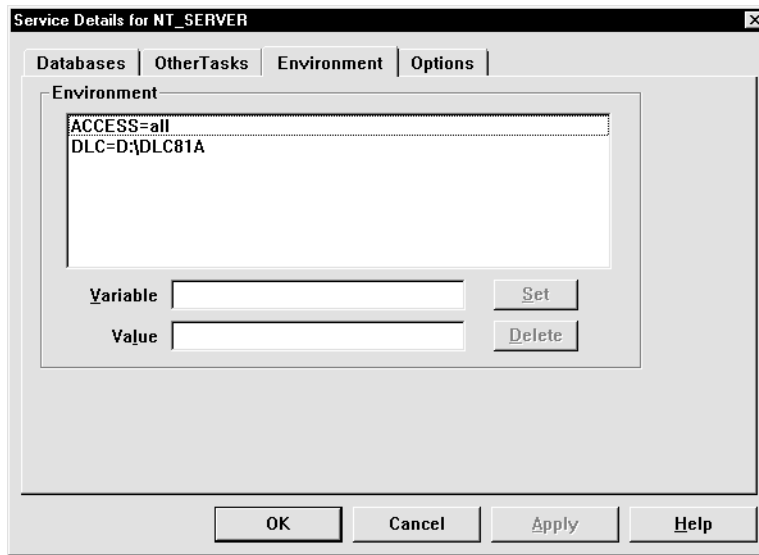


Set Up Other Databases and Global Variables

- 1 Insert the other MFG/PRO databases like the first database. Use the following table as a guideline; it shows the databases and parameters needed for the MFGDEMO database set.

Identifier	Executable Name	Working Directory	Physical DB-Name	Startup Parameters
MFGDEMO	_mprosrv.exe	e:\mfgnt90	mfgdemo	-N TCP -S mfgdemo -B 8000 -L 10000
MFGHELP	_mprosrv.exe	e:\mfgnt90\us	mfghelp	-N TCP -S mfghelp -B 500
GUI	_mprosrv.exe	e:\mfgnt90\us	gui	-N TCP -S gui -B 500
CFG	_mprosrv.exe	e:\mfgnt90\us	cfg	-N TCP -S cfg -B 500

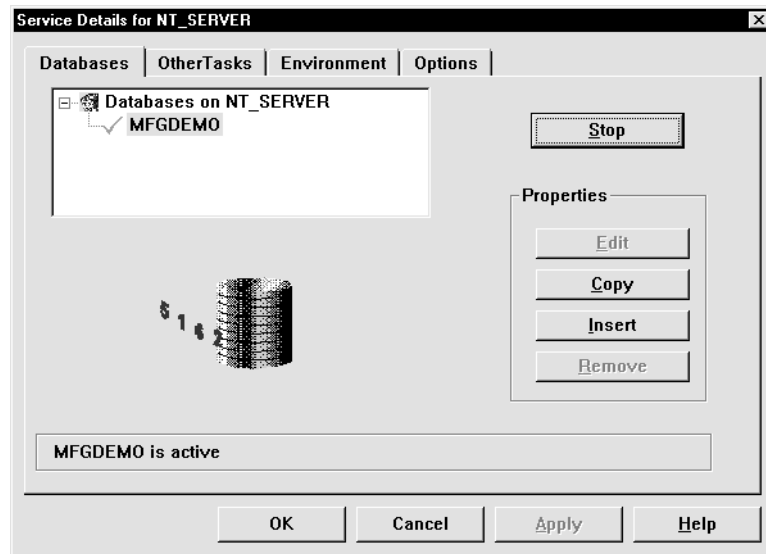
- 2 Set the environmental variable ACCESS=all, along with any other variables, in the Environment tab of the ProControl Detail window. Complete the Variable and Value fields, then choose Set.



Note The ACCESS=all environment value allows processes such as the prowin32 batch processor to access the selected database. By entering it here, the setting applies to all databases. To set a variable for only one database, enter it in the Environment folder of the database setup window.

Start and Stop Databases

- 1 Select the database and choose Start to activate the database service. The database service will remain active until you stop it.



- 2 To stop a database service, select the database and choose the Stop button. You can also use the PCCmd Command; for information, see the *PROGRESS Version 8 System Administration Reference*.

ProControl Event Logging

PROGRESS Version 8 ProControl provides the ability to log database service information to the NT Application Event Log. The level of information that PROGRESS writes to the NT Application Event Log is specified using the EVTLEVEL Environment Variable. EVTLEVEL must be set using the ProControl utility. An example is EVTLEVEL = BRIEF. Valid EVTLEVEL parameters are:

- None: No PROGRESS events are written to the NT Event Log.
- Brief: PROGRESS Error and Warning messages are written to the NT Event Log.
- Normal: PROGRESS Error and Warning messages are written to the NT Event Log along with any PROGRESS messages that are normally written to the log file (.lg). This is the default.
- Full: PROGRESS Error, Warning, and Informational messages are written to the NT Event Log along with any message generated by the Message Statement.

You can view information in the NT Application Event log by selecting Event Viewer in the NT Administrative Tools icon group.

Other Capabilities

The ProControl service lets you manage other environments, such as DataServers and AppServers. In addition, you can use the OtherTasks function to run and manage PROGRESS executables or batch processes.

For a detailed discussion of ProControl, see the section “ProControl Utility” in the PROGRESS Version 8 *System Administration Reference*.

Glossary

bulkfile.fd. Name of the bulkload file created by MFG/CONV during conversion; it is named after your source version database.

Character Client. *See* “Windows Character Client.”

Client Machine or Client PC. 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. PROGRESS, regardless of the hardware platform, uses a client process and a server process.

Client/Server. The configuration in which a client session runs on a separate machine from the database server process. MFG/PRO for Windows requires a client/server configuration.

Configurator Database. The database used with the Component Configurator module. This module enables you to create or modify MFG/PRO object-based programs.

Connect. Name of your MFG/CONV start-up script, started against the source or target version database.

Conversion. Refers to the transition from one numbered release to the next, such as MFG/PRO 7.4 to 9.0. Conversions involve program fixes and, in most cases, major schema changes. (Transitions between lettered releases, which preclude major schema changes, are called updates.)

Database Definitions. Characteristics of a PROGRESS database schema, including field names, table names, validation expressions, labels, initial values, and others.

DBSetName . Name you chose for your database set, used as a suffix to your start-up scripts.

Default Data (System Data). The data that initially populates the menu, messages, printers, language code, and other default data files.

Database Set. A method used by MFG/UTIL to define the connection parameters of a group of databases.

General Release. A new release of MFG/PRO that has completed additional testing as a limited release.

Gui database. Database that contains system data related to the operation of the object programs and programs that run in Windows. Gui stands for graphical user interface.

InstallDir. The directory name where you are installing MFG/PRO. To distinguish between the installation directory of one version and another, this variable is sometimes set, for example, to *ver74dir* and *ver90dir*. Note that the installation directory should be different than the directory where you create your production databases.

LanguageCode. Identifies the language code(s) in a multi-language release.

LanguageDir. A directory containing language-specific files such as programs and help. The directory is named after the language code.

Limited Release. A new release of MFG/PRO that is available only as a standard version, which has undergone beta testing.

Multi-Language Release. A release that supports multiple languages, which may include US English. The US English version in a multi-language release is distinct from the standard release. When you install a multi-language release, you must specify a language

Standard Release. A release that does not support multiple languages. The files can *not* be translated from US English.

SVClient. Name of your client start-up script for the source version.

SVConnect. Name of your MFG/CONV start-up script against the source version.

SVDumpDir. Path to the dump directory that holds dumped data files from the source version (you must create this directory).

SVInstallDir. Main directory containing your source version of MFG/PRO.

WinInstallDir. Directory where you install the MFG/PRO for Windows files, usually on the file server.

Update. Refers to the transition from one lettered release to the next, such as MFG/PRO 8.6B to 8.6C. Updates involve program fixes and some minor schema changes. (Transitions between numbered releases, which can involve major schema changes, are called conversions.)

Windows GUI Client. An MFG/PRO session running in Windows client/server with a graphical user interface (GUI).

Windows Character Client. An MFG/PRO DOS-based session running in Windows client/server with a character interface.

Win32 Intel-Character Client. A PROGRESS product for Windows NT that enables you to run DOS-based sessions in client/server.

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