

Micro Focus[®]

Modernization Workbench[™]

Installing MW EE for the Workgroup



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This manual describes how to install and configure Modernization Workbench Enterprise Edition for the Workgroup (MW EE), a suite of software products for analyzing, mining, and re-architecting legacy applications. MW EE is deployed in a multiuser environment with access to a database of application *repositories* that describe the objects in your applications and how they interact. Repository setup is the responsibility of a *master user*, leaving team members free to focus on their tasks.

MW EE installations consist of the following components:

- The MW EE Repository is an Oracle database containing up to seven repositories, one per MW workspace.
- The MW EE Server hosts MW workspace files and related support files.
- MW EE Clients host the link files used to connect to workspaces on the server.
- The MW EE Database Client is an Oracle client used to connect with the repository. The database client is packaged with both the MW client and MW server, and must be installed wherever the client or server is installed.
- The MW EE License Server is a FLEXnet product used to manage MW licenses. The license server is packaged with the MW server, but can be installed anywhere in the network.
- The MW EE File Server is an optional product for sites that want to restrict Windows access to workspace source files to master users, while still making the source files available in MW to ordinary users. As long as you set up workspace folder privileges correctly, ordinary users can view and analyze sources in MW, but cannot access them otherwise.

NOTE: For instructions on how to install the Enterprise View Express add-on, see **Managing Application Portfolios** in the *workbench documentation set*.

Installation Tasks

The table below describes the tasks involved in installing MW EE and the order in which the tasks must be performed.

Task	Order	Notes
Install Repository Server	1	
Install License Server	2	Packaged with the MW EE Server, but need not be installed on the same machine.
Install Repository Client	3	Packaged with both MW EE Client and MW EE Server, and must be installed wherever the client or server is installed.
Install MW on Server	4	
Install Java add-on on Server	5	Optional.
Install File Server	6	Optional.
Install MW on Clients	7	
Install File Server Clients	8	Optional.

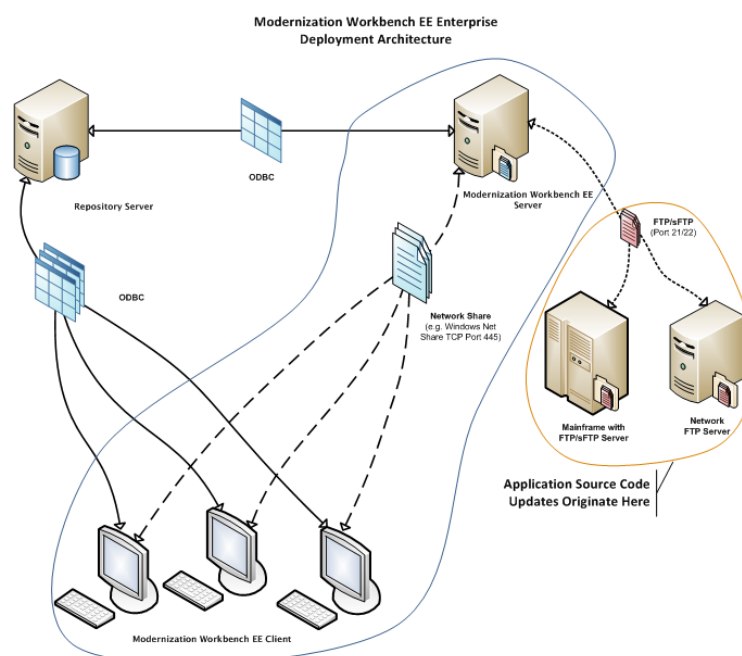
Licensing

Workbench sites manage licenses with a *license server* or a local *license file*. Most sites use a license server because of the flexibility it offers in managing licenses. In place of the traditional license-per-user scheme, the license server oversees a pool of licenses from which it issues licenses dynamically, on a per-product, first-come, first-served basis. In this *floating license* scheme, any user can launch a workbench product as long as the number of licenses for that product has not been exceeded.

The license server can be installed on any machine accessible to MW users. Installing the license server typically is the responsibility of the master user.

Deployment

The figure below shows the standard deployment scenario for MW EE. Nodes inside the blue lasso comprise the product. The role each machine performs and its key relationships are described in the following sections.



Mainframe and Network Server

The mainframe hosts the application to be modeled in MW EE. Application source files are downloaded from the mainframe (and, if necessary, a network server) to the MW EE server via FTP or SFTP.

Repository Server

The Repository Server hosts the database for one or more multiuser repositories, one repository per MW workspace.

This server provides centralized, network-accessible storage for parsed data and analysis output. The MW EE server and client machines access the repository server via ODBC.

MW EE Server

The MW EE Server hosts workspaces, workspace support files (including the copies of application source files the workbench creates at workspace loading), and workspace output. This server leverages multiple processes to enhance parsing performance in online or batch mode.

Parsed data is sent via ODBC to the repository server. Some analysis output is stored on the workbench server as well.

NOTE: The MW Server cannot reside on the same machine as the MW Repository.

MW EE Client

MW EE Clients host the link files that let team members connect to workspaces on the workbench server. These clients access repository data stored in the repository server via ODBC.

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Hardware and Software Requirements

The following sections describe the hardware, disk space, operating system, and software requirements for MW EE installations.

NOTE: Hardware requirements for the database client are shown in the tables for the workbench client and workbench server. Software requirements for the database client are the same as the software requirements for the workbench client and workbench server. Hardware and software requirements for the file server are the same as the hardware requirements for the workbench client and workbench server.

MW EE Repository Hardware Requirements

The table below lists the hardware requirements for MW EE Repository installations. An embedded version of Oracle is installed with the repository. Hardware requirements may vary depending on the size of the application you are analyzing.

Type	Recommendation	Notes
Processor	2 x 2.6 GHz	2 physical processors containing single or multiple cores. <i>NOTE: The MW EE Repository may not be installed on a machine where more than 2 physical processors (occupying 1 socket each) are utilized.</i>
Physical Memory	4GB RAM	
Virtual Memory	1GB to 3GB	

Type	Recommendation	Notes
Hard Drive Storage	Variable	Minimum of 20GB disk space needed for the software installation of the RDBMS and the MW template database. Plus approximately 60X the size in bytes of the application source code modeled in MW.
Hard Drive Requirements	2 or more physical hard drive partitions, fast drives recommended	Enables segmenting data I/O operations for performance tuning optimizations.

MW EE Repository Software Requirements

The table below lists the software requirements for MW EE Repository installations. An embedded version of Oracle is installed with the repository.

Software	Notes
Operating System	Microsoft Windows 2000, Service Pack 1 or higher <i>NOTE: All editions, including Terminal Services and Microsoft Windows 2000 Multi-Language Edition (MLE), are supported.</i> Microsoft Windows Server 2003, all editions Microsoft Windows XP Professional, Service Pack 2 or higher <i>NOTE: Windows XP Professional has a limit of ten simultaneous connections, permitting no more than ten simultaneous MW sessions.</i>

License Server Hardware Requirements

The table below lists the hardware requirements for license server installations. The license server can run on the same machine as the MW EE Server with negligible performance impact. Alternatively, you can install and run the license server on any network-accessible resource. The license server implements Acrecco Software's FLEXnet Manager product. (Acrecco Software is Macrovision's former Software Business Unit.)

Type	Recommendation	Notes
Processor	1.0 GHz (or higher)	Typically consumes no more than a few seconds per client machine per day.
Physical Memory	512 MB RAM	Memory used is under 4 MB.
Virtual Memory	1GB	
Hard Drive Storage	10 GB (or higher)	The license manager and associated utility programs and license files occupy under 30 MB of disk space. <i>NOTE: Log files produced by the license server can accumulate. Production of log files can be suppressed if necessary.</i>

License Server Software Requirements

The table below lists the software and operating system requirements for license server installations. The license server implements Acrecco Software's FLEXnet Manager product. (Acrecco Software is Macrovision's former Software Business Unit.)

NOTE: Although Acrecco Software does not officially support FLEXnet Manager on Windows XP, Micro Focus has successfully run the license server on Windows XP in its testing environment. There is nothing FLEXnet Manager requires in a Windows server operating system (Windows Server 2003, for example) that is not in Windows XP.

Software	Notes
Operating System	Microsoft Windows Vista (Business, Enterprise, Ultimate) Microsoft Windows Server 2003, Service Pack 1 and R2 Microsoft Windows Server 2000 Microsoft Windows XP (see note above)

MW EE Server Hardware Requirements

The table below lists the hardware requirements for MW EE Server installations. Hardware requirements may vary depending on the size of the application you are analyzing.

Type	Recommendation	Notes
Processor	2.6 GHz Dual Core or 2x 3.0+ GHz Processors	Dual processing capability recommended using multiple cores in a processor or using separate physical processors.
Physical Memory	3GB RAM	
Virtual Memory	1GB to 3GB	
Hard Drive Storage	Variable	Approximately 40X size in bytes of source code for the workspace files (e.g., 100MB source = 4GB repository). Minimum of 200 MB disk space for the RMW software. Minimum of 200 MB disk space for the repository client.

Type	Recommendation	Notes
Hard Drive Storage	Variable	Approximately 40X size in bytes of the application source code modeled in MW . Minimum of 200MB disk space for the MW software. Minimum of 115MB for the Java add-on. Minimum of 200MB disk space for the database client.

MW EE Server Software Requirements

The table below lists the software requirements for MW EE Server installations.

Software	Notes
Operating System	Microsoft Windows XP Professional, Service Pack 2 or higher Microsoft Windows Server 2003
RMW EE Repository Client	One configured ODBC data source name (DSN) per database schema that contains a workspace.
Database Client	One configured ODBC data source name (DSN) per database schema that contains a workspace.
Internet Explorer 6.0 or higher (optional)	
Microsoft Office (optional)	Required by MW tools with reporting capabilities to save to Microsoft Office file formats.
Microsoft Visio (optional)	Required to generate output as Microsoft Visio .VSD files. <i>NOTE: Visio .VDX files are XML-based and may be generated without Visio being installed on the MW EE client.</i>
JRE 1.5.0 or higher (optional)	Required for Java add-on. Can be installed after the add-on is installed.

MW EE Client Hardware Requirements

The table below lists the hardware requirements for MW EE Client installations. Hardware requirements may vary depending on the size of the application you are analyzing.

Type	Recommendation	Notes
Processor	3.0 GHz Processor	Single processor (single or dual core).
Physical Memory	1GB RAM	
Virtual Memory	1GB to 3GB	
Hard Drive Storage	1GB	Minimum of 200 MB disk space for the RMW software. Minimum of 200 MB disk space for the repository client.
Hard Drive Storage	Variable	Minimum of 200MB disk space for the MW software. Minimum of 200MB disk space for the database client.

MW EE Client Software Requirements

The table below lists the software requirements for MW EE Client installations.

Software	Notes
Operating System	Microsoft Windows XP, Service Pack 2 or higher Microsoft Windows 2000, Service Pack 4 +
RMW EE Repository Client	One configured ODBC data source name (DSN) per database schema that contains a workspace.

Software	Notes
Database Client	One configured ODBC data source name (DSN) per database schema that contains a workspace.
Internet Explorer 6.0 (or higher)	Required to view HTML report outputs on the MW EE Client. Required as a client of the Enterprise View Express module.
Microsoft Office (optional)	Required by MW tools with reporting capabilities to save to Microsoft Office file formats.
Microsoft Visio (optional)	Required to generate output as Microsoft Visio .VSD files. <i>NOTE: Visio .VDX files are XML-based and may be generated without Visio being installed on the MW EE Client.</i>

3

Installing and Uninstalling MW EE

Before running an installation program described in this section, make sure you have administrative permissions for the machine on which you are performing the installation. If you do not have administrative permissions, the installation program will not let you continue.

NOTE: Make sure that Oracle is not already installed on the MW EE repository, client, or server machines. Failure to completely uninstall a previous version of Oracle will cause errors in MW operations.

Installing the MW EE Repository

The MW EE Repository is an Oracle database containing up to seven multiuser repositories, one repository per MW workspace. An embedded version of Oracle is installed with the repository. This Oracle version limits the number of users and does not provide database administration tools. The repository should only be installed with the assistance of Micro Focus on-site personnel.

TASK

1. In the repository installation folder, double-click the setup_32.cmd file. A command window opens.
2. Enter the drive for binary files in the **Select drive for binaries** field, or accept the default. Press Enter.
3. Enter the drive for data files in the **Select drive for data** field, or accept the default. Press Enter.
4. Enter the System Global Area (SGA) size in megabytes in the **SGA size field**, or accept the default. The SGA size must be at least 128 mega-

bytes. Press Enter. The repository server installation begins transferring files to your machine.

*NOTE: If you receive a Windows Security Alert during the installation asking if you want to keep blocking the program, click **Unblock**.*

Installing the License Server

Install the license server before you install the MW EE Server. Although the license server is packaged with the MW EE Server, it need not be installed on the same machine. Installing the license server typically is the responsibility of the master user.

TASK

1. In the license server installation folder, double-click the install-1.bat file. The MW License Manager dialog opens.
2. The MW License Manager dialog prompts you to email your host name and host ID to the license key center. Click **OK**, then email the requested information to the specified address. You will receive a license file from the license key center in return. Save the file in the folder for the license server installation on your hard drive.
3. Double-click the install-2.bat file in the folder for the license server installation on your hard drive. The license server installation begins transferring files to your machine. When the installation completes, check lmdebug.log in the license server folder for any problems with the installation.
4. Ordinarily, the default port number for the license server (27000) is acceptable. If you need to modify the port number, open the license file

in an editor and append the new port number (preceded by a blank space) to the SERVER line.

AFTER COMPLETING THIS TASK: Consult the **License Administration Guide** installed with the license server for advanced license server administration.

Installing the MW EE Repository Client

Install the repository client wherever you install the workbench client or workbench server. You will need the following information to install the repository client:

- The TCP/IP host name for the machine on which the repository resides.
- The TCP/IP port number for communications with the host, if it is not the standard port number, 1521.
- The SID of the database instance for the repository, RMW21.

TASK

1. In the repository client installation folder, double-click the setup.exe program. The Welcome screen opens.
2. Click **Next**. The License Agreement screen opens. Read the License Agreement carefully. Click **I accept the terms in the license agreement** to accept its terms, then click **Next**.
3. The Destination Folder screen opens. Choose an installation folder. To accept the prefilled value, click Next. To specify a different folder, click **Change** and follow the substeps below:
 - a Navigate the folder structure to find a suitable location. If the destination folder does not exist, the installation creates it.
 - b Click **OK** to exit the Change Current Destination Folder screen and return to the Destination Folder screen.
 - c Click **Next** in the Destination Folder screen.

4. The Database Server screen opens:
 - In the **Database Server** field, enter the TCP/IP host name for the machine on which the repository resides.
 - In the **Port** field, enter the TCP/IP port number for communications with the host, if it is not the standard port number, 1521.
 - In the **SID** field, enter the SID of the database instance for the repository, RMW21.
 5. Click **Next**. The Ready to Install the Program screen opens. Click **Install** to begin transferring files to your PC. A progress meter indicates the progress of the transfer.

*NOTE: To make changes to the settings, click **Back** repeatedly until you find the information you are looking for, make the required changes, then click **Next** until you return to the Ready to Install the Program screen.*
 6. When the transfer is complete, the Setup Complete screen opens. Click **Finish**.
-

AFTER COMPLETING THIS TASK: If you need to modify database server information, run Change Program for the Repository Client in the Add or Remove Programs window in the Windows Control Panel.

Installing MW on the MW EE Server

The MW EE Server hosts MW workspace files and related support files. Follow the instructions in this section to install MW on the server.

NOTE: Do not install MW on the same machine as the MW repository.

TASK

1. In the installation folder for the product, double-click the setup.exe program. The Welcome screen opens.
2. Click **Next**. The License Agreement screen opens. Read the License Agreement carefully. Click **I accept the terms in the license agreement** to accept its terms, then click **Next**.
3. The Customer Information screen opens. Enter your user name and organization in the **User Name** and **Organization** fields, respectively. Click **Next**.

4. The Destination Folder screen opens. Choose an installation folder. To accept the prefilled value, click **Next**. To specify a different folder, click **Change** and follow the substeps below.
 - a Navigate the folder structure to find a suitable location. If the destination folder does not exist, the installation creates it.
 - b Click **OK** to exit the Change Current Destination Folder screen and return to the Destination Folder screen.
 - c Click **Next** in the Destination Folder screen.
 5. The Ready to Install the Program screen opens. Click **Install** to begin transferring files to your machine. A progress meter indicates the progress of the transfer.

*NOTE: To make changes to the settings, click **Back** repeatedly until you find the information you are looking for, make the required changes, then click **Next** until you return to the Ready to Install the Program screen.*
 6. When the transfer is complete, the Setup Complete screen opens. Click **Finish**.
-

Installing the Java Add-On

To install the Java add-on, double-click Java.Addon.exe in the installation folder for the product.

Installing the MW EE File Server (Optional)

The MW EE File Server is an optional product for sites that want to restrict Windows access to workspace source files to master users, while still making the source files available in MW to ordinary users. As long as you set up workspace folder privileges correctly, ordinary users can view and analyze sources in MW, but cannot access them otherwise.

If you use the file server, it must be installed on the same machine as the MW server. The file server installation is packaged on the same CD as the server.

TASK

1. In the file server installation folder, double-click the setup.exe program. The Welcome screen opens.
 2. Click **Next**. The License Agreement screen opens. Read the License Agreement carefully. Click **I accept the terms in the license agreement** to accept its terms, then click **Next**.
 3. The Destination Folder screen opens. Choose an installation folder. To accept the prefilled value, click **Next**. To specify a different folder, click **Change** and follow the substeps below.
 - a Navigate the folder structure to find a suitable location. If the destination folder does not exist, the installation creates it.
 - b Click **OK** to exit the Change Current Destination Folder screen and return to the Destination Folder screen.
 - c Click **Next** in the Destination Folder screen.
 4. The Setup Type screen opens. Choose **Custom**, then click **Next**.
 5. The Custom Setup screen opens. Choose **RMW File Server**, then click **Next**.
 6. The Ready to Install the Program screen opens. Click **Install** to begin transferring files to your machine. A progress meter indicates the progress of the transfer.

*NOTE: To make changes to the settings, click **Back** repeatedly until you find the information you are looking for, make the required changes, then click **Next** until you return to the Ready to Install the Program screen.*
 7. When the transfer is complete, the Setup Complete screen opens. Click **Finish**.
-

Installing MW on an MW EE Client

MW EE Clients host the link files used to connect to workspaces on the server. Follow the instructions in this section to install MW on a client.

TASK

1. In the installation folder for the product, double-click the setup.exe program. The Welcome screen opens.
2. Click **Next**. The License Agreement screen opens. Read the License Agreement carefully. Click **I accept the terms in the license agreement** to accept its terms, then click **Next**.
3. The Customer Information screen opens. Enter your user name and organization in the **User Name** and **Organization** fields, respectively. Click **Next**.
4. The Destination Folder screen opens. Choose an installation folder. To accept the prefilled value, click **Next**. To specify a different folder, click **Change** and follow the substeps below.
 - a Navigate the folder structure to find a suitable location. If the destination folder does not exist, the installation creates it.
 - b Click **OK** to exit the Change Current Destination Folder screen and return to the Destination Folder screen.
 - c Click **Next** in the Destination Folder screen.
5. The Ready to Install the Program screen opens. Click **Install** to begin transferring files to your machine. A progress meter indicates the progress of the transfer.

***NOTE:** To make changes to the settings, click **Back** repeatedly until you find the information you are looking for, make the required changes, then click **Next** until you return to the Ready to Install the Program screen.*

6. When the transfer is complete, the Setup Complete screen opens. Click **Finish**.
-

Installing the MW EE File Server Client (Optional)

The MW EE File Server is an optional product for sites that want to restrict Windows access to workspace source files to master users, while still making the source files available in MW to ordinary users. Ordinary users can view and analyze sources in MW, but cannot access them otherwise.

If you use the file server, the file server client must be installed on the same machine as the MW client. The file server client installation is packaged on the same CD as the client.

TASK

1. Choose one of the following options:
 - If you are installing the file server client from the Micro Focus FTP site, copy the installation folder for the file server client to your hard drive. In the folder, double-click the setup.exe program. The Welcome screen opens.
 - If you are installing the file server client from CD, insert the CD into your CD-ROM drive. The CD autoruns and the Welcome screen opens.

NOTE: If the CD does not autorun, double-click the setup.exe program in the installation folder for the file server client on the CD.

2. Click **Next**. The License Agreement screen opens. Read the License Agreement carefully. Click **I accept the terms in the license agreement** to accept its terms, then click **Next**.
3. The Destination Folder screen opens. Choose an installation folder. To accept the prefilled value, click **Next**. To specify a different folder, click **Change** and follow the substeps below.
 - a Navigate the folder structure to find a suitable location. If the destination folder does not exist, the installation creates it.
 - b Click **OK** to exit the Change Current Destination Folder screen and return to the Destination Folder screen.
 - c Click **Next** in the Destination Folder screen.
4. The Setup Type screen opens. Choose **Custom**, then click **Next**.
5. The Custom Setup screen opens. Choose **RMW File Client**, then click **Next**.

6. The Ready to Install the Program screen opens. Click **Install** to begin transferring files to your machine. A progress meter indicates the progress of the transfer.

*NOTE: To make changes to the settings, click **Back** repeatedly until you find the information you are looking for, make the required changes, then click **Next** until you return to the Ready to Install the Program screen.*

7. When the transfer is complete, the Setup Complete screen opens. Click **Finish**.
-

Uninstalling MW EE

Follow the instructions below to uninstall an MW EE product. Make sure to close any open MW EE programs before running the uninstall program.

TASK

1. Choose **Start:Settings:Control Panel**.
 2. In the Control Panel window, double-click the **Add/Remove Programs** icon.
 3. In the Add/Remove Programs window, select the product you want to uninstall, then click **Remove**. You are prompted to confirm that you want to uninstall the product. Click **Yes**.
 4. When the uninstall process completes, it prompts you to restart your computer. Click **Yes** to restart immediately, click **No** if you plan to restart later.
-

Uninstalling the License Server

Double-click the uninstall.bat file in the folder for the license server to uninstall the license server.

4

Post-Installation Administrative Tasks

Before you can work in MW, you must complete the basic administrative tasks described in this section. You are prompted to perform the first of these tasks, specifying the license location, when you complete the installation.

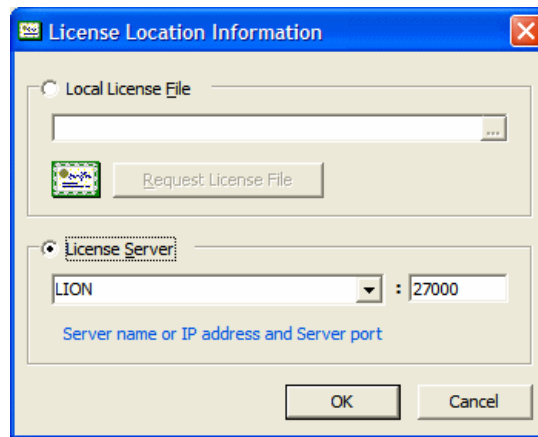
Specifying the License Location

Check with your license administrator to see whether your site uses a license server or a local license file. If you use a license server, the administrator will provide you with the system name or IP address of the server host and its port number.

TASK

1. Open the License Location Information dialog:
 - If you are installing MW EE, click **Finish** in the Setup Complete screen. The License Location Information dialog opens.
 - If you have previously specified the license location and want to modify it, choose **Start:Programs:Micro Focus:Modernization Workbench Administration**. The Administration tool opens. In

the **Administer** menu, choose **Connect to License Location**. The License Location Information dialog opens.



2. Choose the license location:

- If you use a local license file, click **Local License File**, then specify the location of the file in the text field. Use the ... button to browse for the file. When you are satisfied with your entries, click **OK**.

*NOTE: If you do not have a local license file, click **Request License File**. The license key center opens in a Web browser. Follow the instructions in the license key center to request a license file.*

- If you use a license server, click **License Server**, then select (or manually enter) the server name or IP address in the combo box, and enter the port number in the adjacent text field. When you are satisfied with your entries, click **OK**.

AFTER COMPLETING THIS TASK: MW connects to the license server whenever you start a workbench session. If you are unable to access a workbench feature, it may be because you have lost network connectivity with the host or because Windows firewall on the host is blocking access to the license server.

Configuring the Workbench

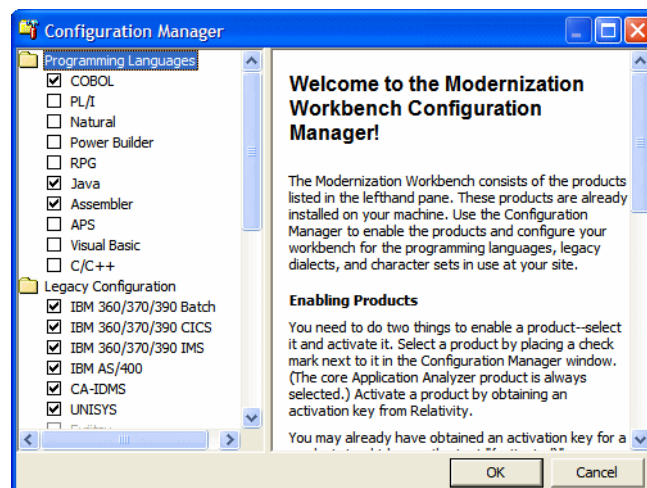
Use the Configuration Manager in the workbench Administration tool to configure workbench options and displays for the programming languages, dialects, character sets, and products in use at your site.

If you configure your workbench for Cobol, for example, you will see only the workbench options and displays appropriate for Cobol modernization. If it turns out that you need to configure your workbench for PL/I as well, you can always come back to the Configuration Manager and select PL/I in addition to Cobol.

TASK

1. Open the Configuration Manager window.
 - If you are installing MW EE, the Configuration Manager window opens after you finish specifying the license location.
 - If you have previously installed MW EE and want to reconfigure it, choose **Start:Programs:Micro Focus:Modernization Workbench Administration**. The Modernization Workbench Administration window opens. In the **Administer** menu, choose **Configure Workbench**. The Configuration Manager window opens.

*NOTE: If the workbench is open, you are prompted to exit. Click **OK**, then close the workbench.*



2. Select each programming language, dialect, and character set currently in use at your site. Select each workbench product you want to use at your site. The core Application Analyzer product is always selected.

Select **Additional Tools** to enable tools not used in typical workbench configurations. When you are satisfied with your choices, click **OK**.

NOTE: If you modify your workbench configuration, make sure to upgrade workspaces created under the previous configuration.

Database Setup

The MW EE Repository is a database containing up to seven repositories, one repository per MW workspace. When you create an MW workspace, you must provide three key pieces of information:

- An ODBC data source name (DSN). The data source name for all workspaces in the MW EE Repository is RMW_Repository.
- A unique database schema name. Choose from seven predefined schema names:
 - RMWUSER1 through RMWUSER5, which together share a 30GB tablespace. Use these schemas for smaller workspaces that together contain no more than 75,000 source files.
 - RMWUSERM, which is assigned a 24GB tablespace. Use this schema for a workspace that contains between 25,000 and 50,000 source files.
 - RMWUSERL, which is assigned a 30GB tablespace. Use this schema for a workspace that contains between 50,000 and 75,000 source files.

NOTE: Tablespace usage may vary based on file complexity, type, programming language, and other characteristics. Tablespace limits are extensible, so check with Micro Focus support services before concluding that an application is too large for an available schema.

- A unique database user name, which must be the same as the database schema name. The password for the user name is identical to the user name. So the user name and password for the schema RMWUSER1 should both be RMWUSER1.

Each user who connects to the workspace must provide all three pieces of information. For complete instructions on creating and connecting to workspaces, see *Getting Started* in the workbench documentation set.

Creating a Shared Folder for Workspaces

The folder in which you plan to create workspaces must be shared with team members. It's typically more convenient to share the folder before you create workspaces, but you can do it afterward if necessary, then refresh the workspace path as described in *Getting Started* in the workbench documentation set.

Follow the instructions below to create a shared folder for workspaces. You must be an administrator to create a shared folder.

TASK

1. On the MW server machine, create a folder for MW workspaces. Select the folder and choose **Sharing and Security** in the right-click menu. The Properties dialog for the folder opens. In the Sharing tab for the Properties dialog, select **Share this folder on the network** (or, on a machine in a Windows domain, **Share this folder**). Enter the share name in the **Share name** field and click **Apply**.

NOTE: Do not embed spaces in the share name. Doing so may cause other users to be unable to access the folder.

2. Click **Permissions**. The Permissions for *Folder* dialog opens. Specify the appropriate permissions for users sharing the folder and click **OK**.
-

File Server Setup

The MW EE File Server is an optional product for sites that want to restrict Windows access to workspace source files to master users, while still making the source files available in MW to ordinary users. As long as you set up workspace folder privileges correctly, ordinary users can view and analyze sources in MW, but cannot access them otherwise.

Follow the instructions below to set up workspace folder privileges. You must be an administrator to perform the first two steps.

NOTE: If your site uses the MW EE File Server, you cannot configure master users on MW client machines. All users on client machines must be ordinary users.

TASK

1. On the MW server machine, open **Settings:Control Panel:Administrative Tools:Computer Management**. In the Computer Management

window, create two groups, MWMasters and MWUsers. The MWMasters group should contain master users, including the administrator. The MWUsers group should contain ordinary users and, if you use the Three-Group Security Policy, subject matter experts (SMEs).

NOTE: Group names are arbitrary. You can use any names you want.

2. On the MW server machine, create a folder for MW workspaces. Select the folder and choose **Sharing and Security** in the right-click menu. The Properties dialog for the folder opens. In the Sharing tab for the Properties dialog, select **Share this folder on the network** (or, on a machine in a Windows domain, **Share this folder**). Enter the share name in the **Share name** field and click **Apply**.

NOTE: Do not embed spaces in the share name. Doing so may cause other users to be unable to access the folder.

3. On the Security tab for the Properties dialog, give full access permissions for the shared folder to the MWMasters and MWUsers groups and to the local SYSTEM account, then click **OK**.
4. Create a new workspace in the shared folder. After defining the connection parameters on the Connection tab, click the Security tab and choose **Secure sources access via RMW file server**. The server name should be the name of the MW server machine. Leave the port number value as is, then click **OK**.

*NOTE: For complete instructions on creating a new workspace, see **Getting Started** in the workbench documentation set.*

5. In the folder for the workspace, right-click the Sources subfolder and choose **Properties**. In the Sources Properties dialog, click the Security tab. On the Security tab, click **Advanced**. In the Advanced Security Settings for Sources dialog, deselect **Inherit from parent...** A Security dialog opens. In the Security dialog, click **Copy**. You are returned to the Advanced Security Settings for Sources dialog.
6. In the Advanced Security Settings for Sources dialog, select **Replace permission entries...** In the Permission entries list, select the MWUsers group and click **Remove**.
7. In the Advanced Security Settings for Sources dialog, click **Add**. The Select Computer, User, or Group dialog opens. In the Select Computer, User, or Group dialog, enter MWMasters (or whatever name you chose for the MW master users group) and click **OK**. The Permission Entry for Sources dialog opens. For the **Full Control** setting, check **Allow**, then

click **OK**. You are returned to the Advanced Security Settings for Sources dialog.

8. In the Advanced Security Settings for Sources dialog, click **OK**. You are prompted to continue. Click **Yes**. In the Sources Properties dialog, click **OK**.
-

Upgrading Workspaces

When you modify your workbench configuration, you must *upgrade* every workspace created with the previous configuration. Only the master user can upgrade a workspace.

TASK

1. Choose **Start:Programs:Micro Focus:Modernization Workbench Administration**. The Modernization Workbench Administration window opens.
 2. In the Administration window, choose **Upgrade Workspace** in the **Administer** menu. The Upgrade workspace dialog opens, where you can choose the workspace to upgrade.
-

5

Troubleshooting the Installation

Follow the instructions in this section to troubleshoot an MW EE installation.

Uninstalling Oracle

Failure to completely uninstall a previous version of Oracle on the MW repository, client, or server machines will cause errors in MW EE repository operations. Follow the instructions in this section to uninstall a previous version of Oracle.

NOTE: Uninstalling Oracle should only be undertaken by on-site support services personnel and only with the explicit permission of the client.

TASK

1. Make a backup of the `tnsnames.ora` and `sqlnet.ora` files in the `ORACLE_HOME\NETWORK\ADMIN` folder.
2. Choose **Start:Programs:Oracle Installation Products: Universal Installer**. In the Universal Installer dialog, click **Deinstall Products**, then follow the prompts.

ADDITIONAL INFORMATION: After completing this step, check the Control Panel Add/Remove Programs window to make sure Oracle has been removed from the list of programs. If it still appears in the list, remove it.

3. Choose **Start:Run**. Type `regedit` in the **Open** combo box and click **OK**. Delete the folders `HKEY_CURRENT_USER\SOFTWARE\ORACLE` and `HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE` from the registry.

ADDITIONAL INFORMATION: Under `HKEY_LOCAL_MACHINE\SOFTWARE\ODBC\ODBCINST.INI`, there may be keys `OraDbversion_home1`, `Oracle in OraDbversion_home2`, or other Oracle keys. Delete the registry entries with those keys.

Under `HKEY_LOCAL_MACHINE\SOFTWARE\ODBC\ODBCINST.INI\ODBC Drivers`, look for keys `Oracle in OraDbversion_home1` or `Oracle in`

OraDbversion_home2. Delete the registry entries with those keys. Do not delete the entry with the key Microsoft ODBC for Oracle.

4. Choose **Start:Settings:Control Panel:System**. In the System Properties window, click the Advanced tab, then click **Environment Variables**. In the System variables group box, delete the environment variables ORACLE_HOME and TNS_ADMIN. Edit the PATH environment variable to remove any folder path that contains the string Oracle. Edit the PATH, CLASSPATH, and PERL5LIB environment variables to remove any folder path that contains the string Oracle.

ADDITIONAL INFORMATION: After completing this step, start the Services tool in the Control Panel Administrative Tools window to check whether Windows services with names starting with Oracle are running. Some examples of such service names are OracleJobSchedulerORCL and OracleOraDbversionhome1TNSListener. Stop those services.

5. Delete the C:\Oracle and C:\Program Files\Oracle folders.
-

Troubleshooting Oracle Errors

Follow the instructions in this section to troubleshoot common Oracle errors.

ORA-01034: ORACLE not available; ORA-27101: shared memory realm does not exist

These errors occur because the Oracle instance is not running. You could be receiving ORA-27101 because you tried to modify database parameters such as SGA size.

ORA-12154: TNS could not resolve service name

This error is always related to your local copy of tnsnames.ora. Check the file in *REPOSITORY_CLIENT_HOME*\RMW Repository Client. It should contain the following entry:

```
RMW_REPOSITORY=
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP)(HOST=hostname)(PORT = 1521))
```

```
)
(CONNECT_DATA = (SID=RMW21))
)
```

where *hostname* is the name of the machine on which the MW Repository is installed.

If *tnsnames.ora* exists in the correct location and does not contain syntax errors, then this error indicates that another Oracle version is installed on the machine. Uninstall the Oracle version.

ORA-12170: TNS: Connect timeout occurred

This error occurs because of firewall issues, database down, listener down, network trouble, and the like. Contact your system administrator or on-site support services personnel for assistance.

ORA-12505: TNS: listener could not resolve SID given in connection description

This error occurs when the SID specified in the connection was not found in the listener's tables. Check *listener.ora* in *ORACLE_HOME\NETWORK\ADMIN* on the machine hosting the MW repository. It should contain the following entries:

```
SID_LIST_LISTENER =
(SID_LIST =
(SID_DESC =
(SID_NAME = PLSExtProc)
(ORACLE_HOME = C:\Oracle\RMW21_10201\home)
(PROGRAM = extproc)
)
)
LISTENER =
(DESCRIPTION_LIST =
(DESCRIPTION =
(AADDRESS = (PROTOCOL = IPC)(KEY = EXTPROC1))
(AADDRESS = (PROTOCOL = TCP)(HOST = hostname)(PORT = 1521))
)
)
```

If *listener.ora* exists in the correct location and does not contain syntax errors, then this error indicates that another Oracle version is installed on the machine. Uninstall the Oracle version.

Troubleshooting the License Server

If users are unable to access a workbench feature and, in particular, if they receive error -96, Windows firewall on the license server host may be blocking access to the license server. You will see Windows Security Alerts on the host asking whether Windows Firewall should keep blocking the programs `lmgrd` and `RTIRMW` daemon. Click **Unblock**.

Troubleshooting Workspace Access

The folder in which you plan to create workspaces must be shared with team members. If users are unable to access workspaces, it may be because:

- You have not shared the folder for workspaces. Share the folder, then refresh the workspace path as described in *Getting Started* in the workbench documentation set.
- You shared the folder for workspaces after creating a workspace. Refresh the workspace path as described in *Getting Started* in the workbench documentation set.
- You embedded spaces in the value of the **Share name** field for the folder. Remove the spaces, then refresh the workspace path as described in *Getting Started* in the workbench documentation set.