



Micro Focus Enterprise Server 2.1 Update 1

A decorative graphic consisting of a thick, blue, glossy ribbon that curves and loops across the lower half of the page. The ribbon has a gradient from dark blue to light blue, giving it a three-dimensional appearance.

Release Notes

Micro Focus
The Lawn
22-30 Old Bath Road
Newbury, Berkshire RG14 1QN
UK
<http://www.microfocus.com>

Copyright © Micro Focus 2009-2013. All rights reserved.

MICRO FOCUS, the Micro Focus logo and Enterprise Developer are trademarks or registered trademarks of Micro Focus IP Development Limited or its subsidiaries or affiliated companies in the United States, United Kingdom and other countries.

All other marks are the property of their respective owners.

2013-03-22

Contents

Micro Focus Enterprise Server Release Notes	4
Installation	5
Installing on Windows	5
System Requirements for Enterprise Server for Windows	5
Installing Enterprise Server for Windows	6
Installing on UNIX	11
System Requirements for Enterprise Server for UNIX	11
Installing Enterprise Server for UNIX	13
Licensing Information	16
What's New	18
New features in Enterprise Server 2.1 Update 1	18
Known Issues	20
Resolved Issues	21
Updates and SupportLine	31
Further Information and Product Support	31
Information We Need	31
Creating Debug Files	32
Disclaimer	33

Micro Focus Enterprise Server Release Notes

These release notes contain information that might not appear in the Help. Read them in their entirety before you install the product.



Note: This document contains a number of links to external Web sites. Micro Focus cannot be responsible for the contents of the Web site or for the contents of any site to which it might link. Web sites by their nature can change very rapidly and although we try to keep our links up-to-date, we cannot guarantee that they will always work as expected.

Installation



Note: If you are installing on Solaris, please read [UNIX Installer Issues](#) first.

Installing on Windows

System Requirements for Enterprise Server for Windows

Hardware Requirements

The disk space requirements are:

- 42MB for the Sentinel RMS license server.
- About 214MB for Enterprise Server.



Note: This includes the space needed to cache information locally so that you can modify the installation without the original source media.

Operating Systems Supported

The following platforms are supported:

- Windows 7 32/64-bit
- Windows 8 32/64-bit
- Windows Server 2008 SP2 32/64-bit
- Windows Server 2008 R2 32/64-bit
- Windows Server 2012 32/64 bit



Note:

- This product can be installed on earlier versions of Windows but it has not been tested on them.

Software Requirements



Note: If you use the Micro Focus Web Installer to install this product, it checks your system and installs the missing prerequisite software.

Before installing this product, you must have the following software installed on your computer:

- A version of the Microsoft .NET Framework that is targeted by your applications:
 - Microsoft .NET Framework 2 - if your applications use the ILCLR(2) Compiler Directive or if they target the .NET Framework versions 2, 3 or 3.5. You might need to download these installers depending on the .NET Framework you are targeting.
To download the Microsoft .NET Framework 2 [click here](#).
Microsoft .NET Framework 2 or later is also required for the Micro Focus License Manager.
 - Microsoft .NET Framework 4 is required if your applications use the ILCLR(4) Compiler Directive or if they target the .NET Framework 4.
To download the Microsoft .NET Framework 4 [click here](#).

**Note:**

- If you do not target a specific version of the Microsoft .NET Framework, Micro Focus recommends that you install version 4.
 - .NET Framework 3 is provided with Windows Vista, Windows Server 2008.
 - .NET Framework 3.5 is provided with Windows 7, Windows Server 2008 R2
- Microsoft's Visual C++ 2010 Redistributable Package:
 - To download Microsoft's Visual C++ 2010 Redistributable Package (x86) [click here](#).
 - To download Microsoft's Visual C++ 2010 Redistributable Package (x64) [click here](#).



Note: If, when you install Enterprise Server, the machine does not have Microsoft Visual C++ 2010 Redistributable Runtime already installed, it will be installed as required by Enterprise Server. The installation of Microsoft Visual C++ 2008 Redistributable Runtime will add a number of .dll files, without digital signatures, into the `winsxs` directory.

- Microsoft's Web Platform Installer 2.0 if your application targets ASP.NET 4. This installs and sets up ASP.NET. To download the installer [click here](#).
- The Java Development Kit (JDK), version 1.6 (u27 or later) or version 1.7 (u05 or later), is required for compiling Java. The JDK is downloadable from www.oracle.com. After installing the JDK, you must put the `tools.jar` file for the JDK on your classpath, using a command similar to:

```
set classpath=jdk-install-directory\lib\tools.jar
```

- A Web browser, such as Microsoft Internet Explorer 6.0 or Netscape Navigator 6.1, is required for Enterprise Server Administration in Enterprise Server.

To use your Web browser offline, you need the dial-up networking feature of Windows installed. Otherwise you might have TCP/IP errors such as being unable find "localhost" or the numeric equivalent (127.0.0.1).

- To use Enterprise Server Administration, scripting or JavaScript support must be enabled in your browser. This is on by default in Internet Explorer in most Windows operating systems. Also, active content must be allowed and not blocked. To enable both these in Internet Explorer:
 1. Click **Tools > Internet Options**.
 2. On the **Security** tab, click **Custom Level**. In the **Scripting** section, under **Active Scripting**, click **Enable**.
 3. On the **Advanced** tab, scroll down the list to the **Security** section, and ensure the item **Allow active content to run in files on My Computer** is checked.
- Enterprise Server Help requires the Java Runtime Environment on some Windows systems to enable the Search facility to work.



Important: This release requires version 10000.2.990 or later of the Micro Focus licensing software. For local servers, you do not need to install it separately, as the setup file installs a new Enterprise Developer client and a new licensing server on the same machine.

If you have a network server, you must update the license server before installing the product as the client is not able to communicate with license servers of versions older than 10000.2.660. On Windows, you can check the version of your license server by clicking **Help > About** in the Micro Focus Licensing System Administration tool. To check the version of the license server on UNIX, run `/var/microfocuslicensing/bin/mfcesver` or `/var/microfocuslicensing/bin/cesadmintool.sh`.

You can download the new version of the license server software from the Micro Focus SupportLine Web site: <http://supportline.microfocus.com/websync/SLM.aspx>.

Installing Enterprise Server for Windows

Installation Restrictions and Requirements

Before starting the installation, you should consider the following:

- Enterprise Developer and Enterprise Server cannot coexist on the same machine.
- If you are installing this as an upgrade, make sure that none of the product files are in use when you start the installation.
- You need to be logged in with a user-ID that has write access to the registry structure under HKEY_LOCAL_MACHINE, HKEY_CLASSES_ROOT, and HKEY_CURRENT_USER so the installation software can set the environment appropriately. You also need to be logged on with Administrator privileges.
- Before installing this product, make sure that any existing Micro Focus Directory Server (MFDS) or CCITCP2 Windows serviceprocess from an existing product is stopped and uninstalled. Do this as follows:

1. Stop the service, using either the Windows Service Management Console GUI or from a command line prompt by typing: `net stop mf_ccitcp2` Only one instance of the MFDS or CCITCP2 service can run on a Windows machine.
2. Uninstall the MFDS or CCITCP2 service.

For MFDS, from a command line prompt enter: `mfdss -u`

For CCITCP2: `ccitcp2 -u`

To run an earlier version of MFDS as a service after you have installed a later version:

1. Stop and uninstall the MFDS service, as described above.
2. Reinstall the earlier version, as follows:
 - a. Open an Enterprise Developer command prompt.
 - b. Install the service. Enter the following command: `mfdss -i`
 - c. Start the service. Enter the following command: `net start mf_ccitcp2`



Note: The two versions use different paths for environment and registry values, so the list of configured Enterprise Servers might be different depending on which version has been started, since, by default, different MFDS data repositories are used.

MFDS 5.1 and later are able to import or use Enterprise Server configuration data generated by earlier versions of MFDS, but 5.0 or earlier versions of MFDS might not be able to read data generated by later versions.

It is possible to run MFDS from a command prompt ("mfdss") rather than as a service, but by default the "mfcobol" port is used (86) and this can only be used by one process at a time

Downloading the Product

1. Use the download links in your Electronic Product Delivery email.

For more information follow the links for the installation instructions and the End User License Agreement.

Installing



Note:

During the installation process, the installer configures the product's Enterprise Server System Administrator Process User ID. The Process User ID will be the owner of all Enterprise Server processes except the one for the Micro Focus Directory Server (MFDS). The Directory Server process (Enterprise Server Administration) runs as root as this allows it to access the system files and ports.

All enterprise server processes you start from Enterprise Server Administration run under the Process User ID which can affect the file access and creation.

By default, the installer uses the login id of the user that runs the installer for the Process User ID. To change the user id after you complete the installation, execute `$COBDIR/bin/casperm.sh`.

To use the Web Installer:

1. Double-click the `enterpriseserver21_update1_webinstaller.exe` file.
2. Click **Start** in the Web Installer dialog and follow the instructions to install the prerequisite software and the product.

Alternatively, you can use the setup file and install the product as follows:

1. Run the `enterpriseserver21_update1.exe` file and follow the wizard instructions to complete the installation.



Note:

- If you are installing onto a machine that has an existing Micro Focus product that uses an older Sentinel RMS License Manager, you might be prompted to remove it and install the Micro Focus License Manager. By doing this you maintain the existing Sentinel RMS license files while adding the Micro Focus License Manager. If you are unsure about existing licenses on your computer or removing the Sentinel RMS License Manager, consult your System Administrator. If you want to proceed, remove Sentinel RMS License Manager by using Windows **Add or Remove Programs** and rerun the installation file.
- Trial licenses cannot be used with remote desktop services. If you want to use your product in this way, please contact Micro Focus SupportLine to obtain a relevant license.
- We recommend that you install any updates for the .NET Framework that are available at the [Microsoft Download](#) site.
- If you install JDK you might be prompted to install the latest update. The latest update is not required for use with Enterprise Developer but you can install it if you wish.

Installing as an Upgrade

This release will update an existing installation of Enterprise Server 2.1.

Before installing, check *Installation Restrictions and Requirements*.

Repairing

If any product files, registry settings or shortcuts are accidentally removed at any point, you can perform a repair on the installation to replace them.

To repair your installation on versions of Windows Vista or later:

1. From the **Control Panel**, click **Uninstall a program** under **Programs**.
2. Right-click your Micro Focus product and select **Repair**.

Uninstalling

To uninstall the product, you cannot simply delete its files from your hard disk. To uninstall the product:

1. Log in with the same user-ID as you used when you installed the product.
2. Click **Uninstall a program** under **Programs** in **Control Panel**.
3. Click **View installed updates** in the left-hand pane.
4. Select the product and click **Remove** or **Uninstall** as appropriate.

When you uninstall, the only files deleted are those that the installation software installed. If the product directory has not been removed, delete any unwanted files and subdirectories within it using Windows Explorer.



Important: The installer creates separate installations for Micro Focus Enterprise Server and Micro Focus License Manager. Uninstalling only Enterprise Server does not automatically uninstall the Micro Focus License Manager or any of the prerequisite software.

To completely remove the product you must uninstall the Micro Focus License Manager as well.

You can optionally remove the prerequisite software. For instructions, check the documentation of the respective software vendor.

Installing Mainframe Access Server

Introduction

The installation process for Mainframe Access Server uses a single FTP operation to transfer all of the mainframe software into a partitioned data set that you pre-allocate. When this transfer is complete, the remaining installation activities are all done on the mainframe. You customize and submit the pre-built FRESTORE job to restore the product data sets from the uploaded files and then continue with customization steps to create an operational Mainframe Access Server.

Requirements

- IBM TCP/IP 4.0, or Interlink TCP/IP 3.1 or higher
- two APPLIDs, two TCP/IP ports
- APF security authorization support personnel availability
- Access to a network share with acceptable space for source and data, as well as the ability to access the IP address and ports used to access MFA
- The following installation-specific variable information:

Variable	Description
<i>drive</i>	
<i>userid</i>	TSO user-ID for FTP to your mainframe
<i>pswd</i>	TSO password for the FTP user-ID
<i>your.mainframe.name</i>	TCP/IP host name or IP address of your mainframe
<i>prodlq</i>	A NEW high level qualifier that will be assigned for all Host Connectivity data sets when the new Mainframe Access product is installed. These are NOT existing product data sets, but rather brand new files that you will be creating for this base version.



Important: The installation of a new version creates new product run-time data sets before the upgrade is applied. Any existing Host Connectivity 3.01 libraries remain intact, and can be used for fallback. If you prefer to retain your former production library names and re-use your existing *prodlq* then rename your old libraries beforehand.

Make a note of the maintenance level of your current Mainframe Access Server. Messages MFM0001I and MFM0014I on the syslog and XDBOUT sysout data set show the maintenance level at startup. You may need to know what level you are upgrading from when you complete post-installation customizations for this upgrade.

Install Mainframe Access Server

In the instructions that follow, the information that you must provide is shown as one of the variable names from the table of information in the previous section. For example, if your high-level qualifier (*prodlq*) value is MY.MFA, then substitute MY.MFA for *prodlq*.

Follow these steps to load Mainframe Access Server:

1. Download the installation file from the link in your Electronic Product Delivery email and extract its contents to a directory on the PC.
2. On the mainframe, allocate a new partitioned data set named *prodhlq.UPLOAD* to receive the uploaded files. Use the following data set characteristics for this upload library:

```
DSORG=PO          <=== PDS (partitioned data set)
RECFM=FB         <=== record format fixed and blocked
LRECL=80         <=== 80 character record size
BLKSIZE=3120     <=== 3120 character block size
SPACE=(3120,(3500,500,50)) <=== allocate blocks (BLKS) size 3120
                                     3500 primary blocks
                                     500 secondary blocks
                                     50 directory blocks
```

3. On the PC, issue the following FTP commands. The actual text of the FTP prompts and responses that you see may differ slightly from those shown in this example.

a. Start FTP:

```
C:\>ftpyour.mainframe.name
Connected to your.mainframe.name.
220-FTPD1 IBM FTP CS/390 VxRy at YOUR.MAINFRAME.NAME, hh:mm:ss
220 Connection will close if idle for more than 5 minutes.
User (your.mainframe.name:(none)): userid
331 Send password please.
Password: pswd
230 userid is logged on. Working directory is "userid."
```

b. Change the working directory on the mainframe to be the upload library that you allocated:

```
ftp> cd 'prodhlq.UPLOAD'
250 The working directory "hlq.UPLOAD" is a partitioned data set.
```

c. Set file transfer type to binary:

```
ftp> binary
200 Representation type is Image
```

d. Set FTP prompting off to transfer all files without interruption:

```
ftp> prompt
Interactive mode Off.
```

e. Transfer all files from the extracted \Upload directory to members in the *prodhlq.UPLOAD* library:

```
ftp> mputdrive:\upload\f*
200 Port request OK.
125 Storing data set prodhlq.UPLOAD(Fxxxxxxx)
250 Transfer completed successfully.
ftp: xxxx bytes sent in x.xx seconds (xxx.xx Kbytes/sec)
.
.
.
```

f. When mput has transferred all files the ftp> prompt appears. End the FTP connection:

```
ftp> quit
221 Quit command received. Goodbye.
```

g. On the mainframe, verify that all files transferred successfully and that for each Fxxxxxxx file in the \Upload directory there is a corresponding member in the *prodhlq.UPLOAD* data set. There should be 10 members, F1 through to F9 and FRESTORE.

4. On the mainframe, edit member FRESTORE in the upload library, *prodhlq.UPLOAD*. Follow the instructions in that member to customize the JCL and then submit that job to restore the product libraries from the uploaded files and populate your new product runtime libraries.
5. Start Mainframe Access Server.

After installation

Since the program libraries can change between versions, it is necessary to either create new procedures, or back up the old procedures, and at least modify the DSNQUAL=*prodhlq* within your MFA sample started

task procedures as provided by Micro Focus. The *prodhlq.LOADLIB* and *prodhlq.SASC.LINKLIB* must both be authorized.

Verify successful maintenance application by checking the Mainframe Access Server startup message:

```
MFM0001I: Mainframe Access V4.00 (BASE ) is active
```

The "(BASE)" indicates the product maintenance level. Also check for "V4.00" in the Mainframe Access Data Connect server startup message:

```
MFA303I MFA/DATACONNECT V4.00 - BASE COPYRIGHT (C) 1987-2012 MICRO FOCUS...
```

When you are satisfied with the new version installation you may delete the UPLOAD data set from your system.

New parameters and members in the CNTL samples data set

The following updated members are found in the CNTL data set.

MFA	sample MFA started task
MFAS	*new* sample MFAS started task for Data Connect
MFAAS	sample MFAAS application server started task
MFAVTAM	sample MFA VTAM definitions
PARMS	sample PARMS for MFA started task
PARMSAS	sample PARMSAS for MFAAS started task
SERVERS	sample SERVERS configuration for MFA
UPQUICK	configuration notes

If you are migrating from Host Connectivity 3.01 WebSync 10 or earlier, you may want to retain your existing CNTL members from your current version as an installation test. You can simply copy the existing MFA started task JCL and change the STEPLIB to reference the new product libraries. You will however be required to modify the MFAS started task JCL since the module names for Data Connect have been changed to allow co-residence within the same authorized library as MFA.

Review the Change Log in each of the new members. Read the documentation for any new parameters in the Readme and in the updated Mainframe Access Administrator's Guide. Add these new parameters and other changes to your working copies. If necessary, customize the new parameters for your installation.

Once you are satisfied with the operation of Mainframe Access, you can consolidate the configuration settings into the new high-level qualified CNTL members.

Installing on UNIX

System Requirements for Enterprise Server for UNIX

Hardware Requirements

The disk space requirements are:

- Between 26MB and 54MB for the Sentinel RMS license server depending on the platform.
- Between 146MB and 350MB for Enterprise Server.



Note: The installation requires extra disk space that equals the size of the product you install.

Operating Systems Supported

- POWER running AIX 6.1 TL7 SP5/7.1 TL1 SP5 - 32/64-bit
- x86-64 running Red Hat Linux 5.5/5.8/6.3, Oracle Linux 6.3 with Red Hat Kernel compatibility mode, Oracle Linux 6.3 with Unbreakable Enterprise Kernel - 32/64-bit
- SPARC running Solaris 10/11 - 32/64-bit
- x86-64 running Solaris 10/11 - 32/64-bit
- x86-64 running SuSE SLES 11/11 SP2 - 32/64-bit
- System Z running SuSE SLES 11 SP2 - 32/64-bit
- System Z running Red Hat Linux 6.2/6.3- 32/64-bit
- HP IA 11.31 - 32/64-bit

Software Requirements

Before installing this product, you must have the following software installed on your computer:

- Before installing on Red Hat 6.x, you must have the 32-bit operating system libraries installed:

GNU Standard C++ Library - libstdc++(i686 version)

The object files for development using standard C libraries – glibc-devel (i686 version)

Check the [Red Hat Web site](#) for more information.

- To use the Web installer on Red Hat Enterprise Linux 6.x, you must have the following bug fix updates for Red Hat installed:

glibc-2.12-1.25.el6_1.3.i686.rpm

openldap-2.4.23-15.el6.i686.rpm

nss-pam-ldapd-0.7.5-7.el6.i686.rpm

zlib-1.2.3-25.el6.i686.rpm

nss-3.12.9-9.el6.i686.rpm

nss-util-3.12.9-1.el6.i686.rpm

cyrus-sasl-lib-2.1.23-8.el6.i686.rpm

You do not need these updates if you use the full product setup file to install the product.

1. Java Platform Standard Edition (Java SE) 6 Update 27 or Java 7 is required to execute COBOL JVM code and for native COBOL and Java interoperability.



Note: On AIX 6.1 v2, the minimum required version is Java 6.0 SR10.

You can download Java SE from www.oracle.com and install it anywhere on your machine.



Important: This release requires version 10000.2.990 or later of the Micro Focus licensing software. For local servers, you do not need to install it separately, as the setup file installs a new Enterprise Developer client and a new licensing server on the same machine.

If you have a network server, you must update the license server before installing the product as the client is not able to communicate with license servers of versions older than 10000.2.660. On Windows, you can check the version of your license server by clicking **Help > About** in the Micro Focus Licensing System Administration tool. To check the version of the license server on UNIX, run `/var/microfocuslicensing/bin/mfcesver` or `/var/microfocuslicensing/bin/cesadmintool.sh`.

You can download the new version of the license server software from the Micro Focus SupportLine Web site: <http://supportline.microfocus.com/websync/SLM.aspx>.

Before you start the installation, you need to set the environment as follows:

- Set the LANG environment variable to pick up localized messages. The LANG settings are English and Japanese only.
- The Java Development Kit (JDK) is required for compiling Java. The JDK is downloadable from www.oracle.com. After installing the JDK, you must put the tools.jar file for the JDK on your classpath, using a command similar to:

```
set classpath=jdk-install-directory\lib\tools.jar
```

- JavaScript or scripting support must be enabled in your browser, so that Enterprise Server Administration is usable. Also, active content must be allowed and not blocked.

Installing Enterprise Server for UNIX

Downloading the Product

1. Use the download links in your Electronic Product Delivery email.

For more information follow the links for the installation instructions and the End User License Agreement.

Installing

To use the Web Installer:

1. Give the Web installer file execute permissions once it downloaded:

```
chmod +x webinstaller_entdev_server_2.1_update1_platform
```

2. Run the installer with superuser permissions:

```
./webinstaller_entdev_server_2.1_update1_platform
```

If you don't run this as superuser, you will be prompted to enter the superuser password during the install.

Alternatively, you can use the setup file and install the product as follows:

1. Give execute permissions to the setup file:

```
chmod +x setup_entdev_server_2.1_update1_platform
```

2. Run the installer with superuser permissions:

```
./setup_entdev_server_2.1_update1_platform
```

If you don't run this as superuser, you are prompted to enter the superuser password during the install.

If you set COBDIR to an already installed product, the installer will back up the existing installation and will install this release in the location COBDIR points to. If COBDIR is not set, the installer does a fresh install.

The COBOL environment is installed by default into `/opt/microfocus/EnterpriseDeveloper`.

To install in a different location use the `-installlocation="Location"` parameter to specify an alternative directory location. For example:

```
./webinstaller_entdev_server_2.1_update1_platform -installlocation="full path of new location"
```

or

```
./setup_entdev_server_2.1_update1_platform -installlocation="full path of new location"
```

You can see details about which additional parameters can be passed to the install script if you enter the `-help` option.

You can use the following options to configure the Enterprise Server installation: [`-ESSysLog="location"`] [`-ESadminID="User ID"`] [`-CASrtDir="location"`], where:

- ESsysLog** Specifies a location in which the build will create the Enterprise Server System log file - for example, `-ESsysLog="/home/esuser/logs"`. The default location is `/var/mfcobol/logs`.
- ESadminID** Sets the Enterprise Server System Administrator Process User ID from the command line - for example, `-EAdminID="esadm"`. The default user ID is the one that runs the installer.
- CASrtDir** Specifies the location where the Enterprise Server run-time system files are placed - for example, `-CASrtDir="/home/esuser/casrt/es"`. The default location is `/var/mfcobol/es`.



Note:

- The installation of this product could affect the SafeNet Sentinel licensed components running on your machine. During installation licensing is shutdown to allow files to be updated. To ensure the processes running on your machine are not affected, you need to use the `-skipsafenet` option, which skips the installation of SafeNet:

```
./setup_entdev_server_2.1_update1_platform -skipsafenet
```

- To protect the SafeNet Sentinel installation from accidental updating you can create an empty file named `SKIP_SAFENET_INSTALL` in `/var/microfocuslicensing/` as follows:

```
touch /var/microfocuslicensing/SKIP_SAFENET_INSTALL
```

While the file is present, the SafeNet installer does not make changes to the installation or shutdown the running license daemons. If later licensing needs to be updated, remove the file and install Sentinel RMS server manually.

After Installing

When you have installed the product, you need to set the environment as described below.

1. To set up your product, execute:

```
/opt/microfocus/EnterpriseDeveloper/bin/cobsetenv
```

2. To verify that your product is installed, execute:

```
cob -Version
```



Important: These commands set the environment only for the current shell. You need to execute them for each new shell that you start.

To avoid having to run `cobsetenv` for every shell, add these commands to the shell initialization files (`etc/profile`, `etc/bashrc`, etc.)

Note that `cobsetenv` is only compatible with POSIX-like shells, such as `bash`, `ksh`, or `XPG4 sh`. It is not compatible with C-shell or pre-XPG4 Bourne shell.

UNIX Installer Issues

License Infrastructure Installer

On some Solaris platforms, you can receive the following error message when SafeNet license server needs to be installed or upgraded on your machine:

```
tar: /safenet.tar: No such file or directory
```

To resolve this issue, wait for the installation to complete and then perform the following:

1. Navigate to the `safenet` directory in the `COBDIR` location.
2. With superuser permissions execute: `./MFLicenseServerInstall.sh`

License Server

On UNIX, you need to configure the computer hostname to ensure the license server will start properly.

To avoid performance issues, "localhost" and the computer hostname must not both be mapped to IP address 127.0.0.1. You should only map "localhost" to IP address 127.0.0.1.

The following is an example of how to specify these entries correctly in the etc/hosts file:

```
127.0.0.1 localhost.localdomain localhost
IP machinelonghostname machineshorthostname
```

where *IP* is the unique IP address of the computer in xx.xx.xx.xx format.

Repairing

If a file in the installation of the product becomes corrupt, or is missing, we recommend to reinstall the product.

Uninstalling



Note: Before you uninstall the product, ensure that the Enterprise Server Regions and the Micro Focus Directory Service (MFDS) are stopped.

To uninstall this product:

1. Execute as root the `Uninstall_EnterpriseDeveloper2.1.sh` script in the `$COBDIR/bin` directory.



Note: The installer creates separate installations for the product and for Micro Focus License Manager. Uninstalling the product does not automatically uninstall the Micro Focus License Manager or the prerequisite software. To completely remove the product you must uninstall the Micro Focus License Manager as well.

To uninstall Micro Focus License Manager:

1. Execute as root the `UnInstallMFLicenseServer.sh` script in the `/var/microfocuslicensing/bin` directory.

The script does not remove some of the files as they contain certain system settings or licenses.

You can optionally remove the prerequisite software. For instructions, check the documentation of the respective software vendor.

Licensing Information



Note:

- This release uses the license keys for the Enterprise Developer 2.0 release.
- If you are unsure about what your licensing policy is or what sort of license you require, consult your System Administrator or Micro Focus SupportLine to obtain a valid license.

Windows Use the Authorization Code, supplied with your delivery notice, to license your product. To do this:

1. Click **Start > All Programs > Micro Focus License Manager > License Management System**.

The dialog box for the Micro Focus License System Administration Tool will be displayed.

2. Click the **Authorize** tab.
3. Enter your Authorization Code and click **Authorize**.
4. Close the Micro Focus License System Administration Tool.

If you wish to install the license silently, execute the following after the product has been installed:

```
start /wait <install-dir>\bin\cesadmintool -term activate  
AuthorizationCode
```

UNIX

The Micro Focus Licensing System is installed into the `/var/microfocuslicensing` directory.

To license your software:

1. Run the Micro Focus Licensing Administration utility:

```
sh /var/microfocuslicensing/bin/cesadmintool.sh
```



Note:

- You need permissions to write to the license file which normally means you need to log in as root.
 - Make sure Java is on the PATH before you run the utility. See *System Requirements* for more information.
2. Select an option as appropriate and press **Enter**:

If you have access to the Internet:

Select **Online Authorization**. You will be prompted to enter the Authorization Code supplied with your delivery notice.

If you do not have access to the Internet:

You need the license strings. In order to obtain them, you need your Authorization Code, your Machine Id and a machine with access to the Internet.

- a. Choose **Get Machine Id** and press **Enter**.
- b. Make a note of the information which is displayed.
- c. On the machine which is connected to the Internet, open <http://supportline.microfocus.com/activation/> in a browser.
- d. Follow the instructions to obtain the license strings and save them to a text file.
- e. Copy the text file to the first machine on which you are installing the product.

- f. At the command line, select **Manual License Installation** from the licensing options and enter the full name of the file containing the license strings.

UNIX Please check the Autorun for more details about licensing.

What's New

The following sections outline the new features that have been added in this release of Enterprise Developer.

New features in Enterprise Server 2.1 Update 1

Enterprise Server

The following new features and enhancements are available:

Clustering	Enterprise Server Clustering allows the scaling-out of work units, so that an increased number of operating system images can share the workload, resulting in high-performance, multi-system data sharing across all platforms.
Historical Statistics Facility	The Historical Statistics Facility has been extended to include the generation of JCL file records, increasing the amount of information customers have available to assist them in monitoring and tuning their Enterprise Server installations.
Recovery of in-doubt XA transactions	Some events in XA environments can result in 'in-doubt' transactions, where all parts of a composite transaction are not committed through all participating resource managers. The recovery of such in-doubt transactions is now supported.
SSL Support for the CICS Web Interface	Enterprise Server now allows clients and servers to identify themselves through X.509 certificates and participate in SSL-enabled conversations.

HCO for DB2 LUW

- Support for 64-bit DB2 ECM
- Support for 64-bit compile and runtime
- Support for DB2 10.1
- New DB2 SQL compiler directive option, BGP, to enable background parsing.

PL/I Support

- Support for executing PL/I programs using IBM MQ Series software
- DEFINE ALIAS support for the Open PL/I Compiler for XML
- Support for TSO/IDCAMS
- Improved PLISRTD performance on UNIX/Linux
- Improved file I/O speed when using the PL/I language to read or write sequential, indexed and relative record files
- To enable PL/I for CICS, JCL, IMS you only need to set `ES_PLI_SUPPORT=Y`. You no longer need to set `ES_PL1_MFFH_JCL=Y`.
- Support for character picture data types A,X
- Support for %XINCLUDE (macro preprocessor and compiler)
- Support for %OPTION (macro preprocessor)
- Tolerance for source code containing INLINE and ABNORMAL attributes.
- Support for the TINY and HUGE built-in functions
- New PLICTF and PLICTFHX built-in functions
- Support for the PARAMETER attribute

- Support for the NONINIT attribute

Known Issues

Please, refer to the *Known Errors and Restrictions* topic in the *Product Information* section of your product Help.

In addition, please note the following:

CICS	An EXEC CICS DELAY statement may, sometimes, produce a difference of one second.
COBOL Watchpoints	The debugger ignores a COBOL watchpoint that is hit if there is no statement following the statement that modifies the data on which that watchpoint is set.
Documentation	The installation instructions in the documentation for Enterprise Server for UNIX include incorrect filenames of the Web installer and setup files, <code>webinstaller_entdev_server_2.1_platform</code> and <code>setup_entdev_server_2.1_platform</code> . The file names should be <code>webinstaller_entdev_server_2.1_update1_platform</code> and <code>setup_entdev_server_2.1_update1_platform</code> , respectively.
ICETOOL Emulation	ICETOOL emulation for managed code is not available in this release.
Enterprise Server	<ul style="list-style-type: none">• On versions of Windows Vista and later, Enterprise Server listens only on the IPv4 loopback address (127.0.0.1). As a result, an attempt to connect to localhost with a TN3270 emulator such as RUMBA may fail. To work around this issue, in your emulator's configuration use 127.0.0.1 in preference to localhost or your host machine's name.• The Refresh button at the bottom of the ESMAC pages does not work.
JCL VSE	When running Enterprise Server applications on HP Itanium in 32-bit mode, if you receive an error such as "CASCD1057S JES Initiator for Server ... abended by signal 00004", you need to set the environment value COBMAINSTACK to a value greater than 500000 to increase the default stack size.
Open PL/I	Currently, the Open PL/I Codewatch debugger does not run on 64-bit Windows 8.

Resolved Issues

The resolved issues that customers have reported are listed in this section. The numbers that follow each issue are the Reported Problem Incident number followed by the Customer Incident Numbers (in parentheses). RPIs that have numbers only (and no text) are included to confirm that the RPIs have been fixed, since no further information is required.

- [.NET Compiler](#)
- [.NET ESQL Support](#)
- [.NET RTS](#)
- [CAS \(COBOL App Server\) General](#)
- [CAS XA Switch modules](#)
- [Compiler](#)
- [Data Tools Converter](#)
- [Data Tools Vrecgen \(Character\)](#)
- [Documentation](#)
- [File Handling - External File Handler](#)
- [File Handling - Sort / JCL Sort](#)
- [JVM - Debugger](#)
- [MF Communications Server](#)
- [MF Directory Server](#)
- [MTO - CICS Emulation](#)
- [MTO - CICS ESMAC](#)
- [MTO - IMS TM](#)
- [MTO - JCL MVS](#)
- [MTO - JCL TSO](#)
- [MTO - JCL Utils](#)
- [MTO - JCL Utils - IDCAMS](#)
- [MVS REXX Emulation](#)
- [NCG](#)
- [Open PL/I CICS Preprocessor](#)
- [Open PL/I Compiler](#)
- [Open PL/I Debugger](#)
- [Open PL/I Macro Preprocessor](#)
- [Open PL/I RTS](#)
- [Open PL/I SQL Preprocessor](#)
- [RTS](#)
- [Setup Issues \(UNIX\)](#)
- [SQL: Cobsql](#)
- [SQL: OpenESQL](#)
- [XML syntax support runtime](#)

.NET Compiler

[Back to List](#)

- A COMPUTE statement where the target field had fewer significant digits than some of the operands of the arithmetic expression no longer results in invalid arithmetic.

1087987 (2614566)

.NET ESQL Support

[Back to List](#)

- SQLWARN4 flag was not being set when more than one row was returned for a singleton SELECT statement. The OpenESQL run-time now correctly sets SQLWARN flags when a singleton SELECT statement returns multiple rows. - 1085945
1085945 (2593798)
- The OpenESQL pre-compiler sometimes flagged object host variables as invalid when multiple programs were compiled into a single .exe or a .dll file.
1086906 (2603712)

.NET RTS

[Back to List](#)

- A performance issue with raising an expression to a fractional power has been fixed.
1086614 (2594740)

CAS (COBOL App Server) General

[Back to List](#)

- HSF includes the following enhancements:
 - A new record type (JCLF) for JCL files.
 - A Job class has been added to the JCL JOBSTART records.
 - A condition code has been added to the JCL STEP records.
 - Statistics for up to 5 Transient Data Queues per CICS record has been added (same as for existing TSQ stats). The HSF files will now be created with the following header:

```
#HSFVer=02 Type,PID,Task,Date,Time,Tran/Job,User/DDName/CC,LU/Step,Prog/DSName,Latent/  
ReadCount,Resp/WriteCount,API/RewriteCount,SQL/  
DeleteCount,IMS,DSType,DSAccessType,File1,Count1,Time1,File2,Count2,Time2,File3,Count3,Time3,  
File4,Count4,Time4,File5,Count5,Time5,TS1,Count1,Time1,TS2,Count2,Time2,TS3,Count3,Time3,TS4  
,Count4,Time4,TS5,Count5,Time5,TD1,Count1,Time1,TD2,Count2,Time2,TD3,Count3,Time3,TD4,Cou  
nt4,Time4,TD5,Count5,Time5
```
- Logging has been added for the resource managers to facilitate recovery from failures that leave the resource managers such as DB2 and MQ with in-doubt transactions. You only need to log if the resource manager switch modules are configured to respond to xa_recover() calls. Logging may affect the performance so you can disable it as follows - edit the server from the Enterprise Server Administration, click the General tab and type the following in the Configuration Information text box:
[ES-Environment] ES_XA_LOG_SUPPRESS=Y
1082755 (2552658)
- Logging has been added for the resource managers to facilitate recovery from failures that leave the resource managers such as DB2 and MQ with in-doubt transactions. You only need to log if the resource manager switch modules are configured to respond to xa_recover() calls. Logging may affect the performance so you can disable it as follows - edit the server from the Enterprise Server Administration, click the General tab and type the following in the Configuration Information text box:
[ES-Environment] ES_XA_LOG_SUPPRESS=Y
1085539 (2582570)

CAS XA Switch modules

[Back to List](#)

- The SQL Server XA switch module was updated to resolve some issues with verifying the success or a failure of ODBC API calls which could lead to failures during the commit or rollback operations.
1087383 (2608663)
- The ODBC one-phase commit switch module has been updated so that when you use it within an online environment (such as CICS or Web Services), and then you perform a COMMIT, any cursors

that are not defined as WITH HOLD are closed. When you use the module within JES-enabled transactions that use IKJEFT01, all cursors are closed as before.

1087536 (2610091)

Compiler

[Back to List](#)

- Specify an environment variable with the USE and DIRECTIVES Compiler directives (e.g. USE"\$myDirs") to locate a directives file.

1086063 (2592063)

Data Tools Converter

[Back to List](#)

- The dfconv replacement input and output filenames are no longer truncated to the filename lengths used within the profile file.

1086569 (2599741)

- DFCONV, the data file convert command line utility, is now available in Enterprise Server.

1087051 (2605033)

Data Tools Vrecgen (Character)

[Back to List](#)

- The source files for the VRECGEN and VRECGEN2 utilities are now stored in the .\src folder in the product installation.

1087209 (2603963)

Documentation

[Back to List](#)

- The SSRANGE Compiler directive is provided for emulation of the IBM mainframe compiler of the same name; because of this, its scope is limited to the syntax permissible in a mainframe dialect.

1087083 (2605408)

- To ensure no loss of functionality when accessing Vision and RM/COBOL data files, you should use the appropriate IDXFORMAT Compiler directive setting or file handling option, and not use the CALLFH(ACUFH) Compiler directive. See 'Configuring Access to Vision Files' and 'Configuring Access to RM/COBOL Data Files' for more information.

593437 ()

- The documentation has been updated so that the help page more accurately reflects the ESMAC screen.

1087753 (2611733)

- All COBOL CICS programs that call user exits need to be compiled with the NOAMODE directive.

593780 ()

- The documentation now clarifies the EZACICM.MOD location.

1086693 (2599949)

- The documentation now includes information about the -stcpssl cassub option.

1087060 (2605136)

- The product documentation now includes information about the ES_JESYSMSG_OUTPUT environment variable.

1087004 (2604533)

- The JCL documentation has been updated to include the error messages JCLAM0187I and JCLAM0188I.

1087072 (2605203)

- The documentation has been updated to provide more information about the MFJAMS LISTCAT command.

594069 ()

- The documentation has been updated to remove references to ERRORLEVEL in Unix environments.

1087575 (2610423)

- The casrdtex documentation has been updated to include several more supported parameters.

594324 ()

File Handling - External File Handler

[Back to List](#)

- EXT FH configuration options specified under the FOLDER tag now work correctly with UNIX files when they are specified with an absolute path in the SELECT statement of a COBOL program.

1086089 (2594733)

- RMFM record lock timeouts now work correctly on UNIX.

1087015 (2602108)

File Handling - Sort / JCL Sort

[Back to List](#)

- A SORT RETURN statement now returns a 9/230 error for the return past EOF.

1087358 (2606867)

- SORT now terminates with return code 16 and throws a 9/013 error when the catalogued input file is not physically present.

1087529 (2607690)

- SORT now terminates with return code 16 and displays error message "SORT103E Invalid operator .JOINKEYS." when the JCL contains the JOINKEYS parameter.

1087311 (2607369)

JVM - Debugger

[Back to List](#)

- The JVM COBOL Debugger could only locate copybooks that were located in the same directory as the COBOL program.

1086348 (2597430)

MF Communications Server

[Back to List](#)

- Micro Focus Communications Server no longer fails intermittently with a signal or an exception if a CICS Web Interface listener fails to start because of a port conflict.

594293 ()

MF Directory Server

[Back to List](#)

- Previously, if you used the -x command line option when exporting an Enterprise Server configuration definition from MFDS in XML format, the MFDS process would terminate.

1087968 (2609146)

MTO - CICS Emulation

[Back to List](#)

- Printer documents initiated by the CICS SPOOL commands are now sent directly to the printer and are no longer delayed.

1087941 (2613944)

- The documentation now clarifies the usage of DDnames in the SSTM context.

1085948 (2593338)

- If an alternate file is created and the base name for the referencing file is wrong, the user can now correct the resource definition base name and apply the changes without having to restart the region.

1084651 (2578312)

MTO - CICS ESMAC

[Back to List](#)

- The default queue in ESMAC > JES > Spool is now the OUTPUT queue.

588935 ()

MTO - IMS TM

[Back to List](#)

- An EXEC DLI TERM call could result in a storage violation 114 error in COBOLDLI.

594167 ()

- You now receive warning and error messages in the console log when the IMS Message Queue approaches an out-of-space condition, and when its free space is exhausted.

1086438 (2594357)

- IMS Connect EBCDIC message data is now supported.

1088027 (2614756)

MTO - JCL MVS

[Back to List](#)

- The informational messages JCLAM0187 and JCLAM0188 are no longer issued inappropriately.

1087086 (2605203)

MTO - JCL TSO

[Back to List](#)

- The documentation has been updated to clarify the IDCAMS commands available within TSO batch jobs.

1084163 (2573281)

MTO - JCL Utils

[Back to List](#)

- Under increased load conditions, using multiple initiators, a 9/068 error on casspool was sometimes reported and a job was not run. Improved status checking has been incorporated to remove this problem.
1086528 (2587849)
- Input files are no longer optional so you can receive errors if you catalog a file without creating the physical file. To help avoid failures of JES job steps because of a missing input file, you can use one or both of the following environment variables: 1) MFALLOC_PCFILE=Y - results in the creation of a catalog file if DSORG=PS is set in the DCB parameters. 2) MFJ_INPUTDS_ERROR=N - results in IEBDG, IEBCOMPR and IEBCOMPR utilities to treat missing input files as though they were present but empty files.
594968 ()

MTO - JCL Utils - IDCAMS

[Back to List](#)

- The IDCAMS REPRO of records into an RRDS file that already contained data was generating a file write error. This has been corrected. If the RRDS file contains records and REPLACE has been specified in the REPRO command then the records will be overwritten. If REPLACE has not been specified then a DUPLICATE RECORD (JCLAM0236E) error will be generated.
1086780 (2601984)

MVS REXX Emulation

[Back to List](#)

- Execs residing in temporary datasets allocated to SYSEXEC or SYSPROC no longer sometimes fail to load.
1086478 (2579785)
- The bpxwunix() function is now supported by the REXX engine.
1085190 (2584045)

NCG

[Back to List](#)

- An error when linking on Solaris Intel 64 bit with the latest versions of Solaris 10 has been fixed.
1086852 (2602536)
- Display statements of the type "display a(1:i*c) at 0101" could cause the generator to fail when in debug mode.
1088048 (2607368)

Open PL/I CICS Preprocessor

[Back to List](#)

- When a nested %INCLUDE is preprocessed by the macro preprocessor, the corresponding %ENDFILE is now injected into the preprocessor output in the correct column (column 1).
1082294 (2546061)
- Previously on AIX you could not compile/link with the same commands that were present on Windows, Linux, and SPARC: you had to execute the preprocess/compile steps separate from the link steps and manually create an appropriate export list and invoke the ld command directly with the appropriate parameters. We now create an export list if it does not exist and allow you to preprocess/compile/link in one mflx command as you can on other platforms.
593676 ()

- Using -nodebuginfo with the MACRO preprocessor no longer strips off the %IGNORMARGINS; directive, so when the mfexecpp (CICS) preprocessor processes the source it no longer loses items in columns 1 and anything past column 72.
1087424 (2609009)
- In some cases, ldpli failed with an unresolved reference due to the absence of the entry point MFPLICPPN_<program name>.
1087076 (2603565)

Open PL/I Compiler

[Back to List](#)

- Any variable declaration with conflicting storage attributes now produces an E-level diagnostic. The Open PL/I compiler accepts the first storage attribute and ignores any additional storage attributes.
1087130 (2605852)
- A issue with using SUBSTR of a character pictured variable as a pseudo-variable has been resolved.
1086979 (2603607)
- A problem with a function call in the RETURN statement has been fixed.
1087098 (2605508)
- A problem when using the STRING function as a pseudo-variable and the Compiler switch -range has been fixed.
1086550 (2597682)
- An erroneous diagnostic for fixed decimal variables accepting the specified number of digits has been fixed.
1086830 (2600689)
- For the Open PL/I Compiler, the implementation limit of 64 for the number of data and format list pairs in an edit-directed specification has been increased to 256.
1086769 (2600690)
- The Open PL/I Compiler now correctly handles bit variables with DEFINED storage and the POSITION attribute.
1086738 (2600658)
- The Open PL/I Compiler no longer encounters a problem using a CHAR(*) VAR parameter as the argument to the MAXLENGTH built-in.
1087241 (2606704)
- A possible memory leak in -opt mode no longer occurs when using character strings in a relational comparison.
1085402 (2587143)
- Named constants of type BIT with static initializers no longer has a regression issue.
1087296 (2607316)
- When initializing fixed decimal static arrays, an erroneous 343E diagnostic message with regard to precision and scale was being issued.
1087452 (2609295)
- An issue which resulted in a SIGSEGV during the code generator phase of the Compiler has been resolved.
1087283 (2607092)

Open PL/I Debugger

[Back to List](#)

- The CodeWatch Debugger no longer traps while to evaluate a user function in the debugged procedure on Windows operating systems with Data Execution Prevention (DEP) turned on.
588762 ()
- The Open PL/I Debugger no longer traps while to evaluate a user function in the debugged procedure on Windows operating systems with Data Execution Prevention (DEP) turned on.
579079 ()

Open PL/I Macro Preprocessor

[Back to List](#)

- When you used the PL/I Macro Language PARMSET() built-in, it would sometimes incorrectly report PARMSET() as true for an argument that had not been passed in. The problem was most prevalent when a combination of KEYWORD invocation and positional parameter invocations were intermixed multiple levels deep.
592695 ()
- If a PL/I Macro is written so that KEYWORD parameters (as opposed to positional parameters) are used, and a macro is driven that uses a KEYWORD parameter which is not supplied, the result is no longer truncated at the location of the missing KEYWORD parameter.
1084556 (2578580)
- The output from "NOTE" in PL/I was being incorrectly written to STDERR instead of STDOUT. STDERR was then causing a loop when you ran it from within the Visual Studio IDE.
1086977 (2603654)
- The Open PL/I Macro Preprocessor now handles multiple closes of macros.
1084417 (2577063)
- When running the macro preprocessor as part of an Open PL/I Compile, if there are missing %INCLUDE files, we now flag them as SEVERE errors which are visible in the Visual Studio Output Tab even with the minimal level of MSBuild information enabled. We terminate after the macro phase, allowing the customer to correct the situation before continuing.
1084419 (2577072)
- The Open PL/I macro preprocessor now supports the new %XINCLUDE statement.
593874 ()
- When the macro preprocessor was making multiple passes on the same portion of code, %ENDFILE and %FILE were not always generated in Column 1. This was causing issues for the CICS and SQL preprocessors.
1087132 (2605895)

Open PL/I RTS

[Back to List](#)

- The performance of the Open PL/I internal subroutine P\$ANY2 which handles unoptimized conversions from one data type to another has been improved and it now runs faster.
1087119 (2605529)
- The correct link level context is now being maintained for writes to SYSPRINT and PLIDUMP from within PL/I CICS Programs. Also, if DCB attributes are not specified for the PLIDUMP DD in the CICS SSTM file (or an SSTM file was not used) then the output no longer contains extraneous garbage data in the TDQ for each record written to the PLIDUMP.
1087347 (2603565)
- The correct LINK level context are now maintained for writes to SYSPRINT and PLIDUMP from within PL/I CICS Programs.

1087346 (2603565)

- Accessing PL/I Regional(1) files from an Open PL/I Program no longer triggers an ONKEY condition when attempting to read KEY(0) from an OPEN PL/I Program. This behavior should have returned 'FF'x if the record was not present or the actual record if present.

1087690 (2611584)

- Reading from a PL/I "Regional(1)" dataset into a "CHAR VARYING" field no longer results in garbled data being returned from a successful read.

1087674 (2611386)

- When using a VSAM RRDS to emulate PL/I Regional(1) file, a trap no longer occurs if the RECSZ() parameters for AVG, MAX used to define the VSAM RRDS are identical.

1087675 (2611383)

- Writing or rewriting to a record contained in an Open PL/I "Regional(1)" file no longer triggers the ONKEY condition if a key of 0 was used.

1087762 (2612112)

- Studio Enterprise Edition 6.0 SP2 WS1 Hotfix 11 eliminated a memory leak on multiple open/close cycles. This introduced a new issue, where an OPEN/CLOSE of an initial file followed by two or more consecutive OPENS of INPUT and OUTPUT types resulted in bogus 9/148 file status and ON ERROR being triggered. This behavior only occurred if the first file opened was closed prior to the opening of second and subsequent files.

1086579 (2599958)

Open PL/I SQL Preprocessor

[Back to List](#)

- The SQL precompiler was not recognizing the NOT SYMBOL properly which resulted in SQL precompiler errors.

1087179 (2606194)

- A problem with a sporadic incorrect occurrence of Error 2000A has been fixed.

1087150 (2606039)

- The mfdb2 pre-compiler did not tolerate the "BUFFERED" attribute when it was used on a file declaration.

1086978 (2603472)

RTS

[Back to List](#)

- When upgrading mainframe-based PL/I code to Enterprise Server, if the application utilized the CEE3ABD API then it failed to link with an unresolved external.

1084537 (2578370)

Setup Issues (UNIX)

[Back to List](#)

- During installation, the CheckDiskSpace function no longer relies on English text strings from the UNIX df command.

1086610 (2600117)

SQL: COBSQL

[Back to List](#)

- The COBSQL preprocessor could not process options longer than 65 characters.
1085597 (2589416)

SQL: OpenESQL

[Back to List](#)

- The SQL JVM Run-Time .jar library file is now supplied as part of the Micro Focus COBOL deployment products for UNIX.
1087595 (2610662)
- A DBMAN=OCI option is now available in OpenESQL for PL/I programs. The option enables you to use Oracle's OCI API rather than ODBC to talk to Oracle databases.
1086487 (2598954)
- The OpenESQL preprocessor sometimes generated incorrect query lengths for EXEC SQL PREPARE INTO FROM statements, resulting in the SQL queries being truncated.
1087324 (2607761)
- The OpenESQL preprocessor incorrectly rejected certain characters that are valid in PL/I but not in COBOL.
1086846 (2603129)
- The ODBC pre-compiler now allows you to define host variables after the DECLARE CURSOR SQL statement if they are not defined in the PROCEDURE DIVISION.
1086501 (2599123)
- When using the SQL Server Native Client ODBC driver, the OpenESQL Run-Time System now correctly processes SQL Server data defined as VARCHAR(MAX).
1086665 (2601192)

XML syntax support runtime

[Back to List](#)

- The XML preprocessor now generates correct output for the COUNT IN clause.
1086285 (2596137)

Updates and SupportLine

Our Web site gives up-to-date details of contact numbers and addresses.

Further Information and Product Support

Additional technical information or advice is available from several sources.

The product support pages contain a considerable amount of additional information, such as:

- The WebSync service, where you can download fixes and documentation updates.
- The Knowledge Base, a large collection of product tips and workarounds.
- Examples and Utilities, including demos and additional product documentation.

To connect, enter <http://www.microfocus.com> in your browser to go to the Micro Focus home page.



Note: Some information may be available only to customers who have maintenance agreements.

If you obtained this product directly from Micro Focus, contact us as described on the Micro Focus Web site, www.microfocus.com. If you obtained the product from another source, such as an authorized distributor, contact them for help first. If they are unable to help, contact us.

Information We Need

However you contact us, please try to include the information below, if you have it. The more information you can give, the better Micro Focus SupportLine can help you. But if you don't know all the answers, or you think some are irrelevant to your problem, please give whatever information you have.

- The name and version number of all products that you think might be causing a problem.
- Your computer make and model.
- Your operating system version number and details of any networking software you are using.
- The amount of memory in your computer.
- The relevant page reference or section in the documentation.
- Your serial number. To find out these numbers, look in the subject line and body of your Electronic Product Delivery Notice email that you received from Micro Focus.

On Windows, if you are reporting a protection violation you might be asked to provide a dump (`.dmp`) file. To produce a dump file you use the **Unexpected Error** dialog box that is displayed when a protection violation occurs. Unless requested by Micro Focus SupportLine, leave the dump setting as `Normal` (recommended), click **Dump**, then specify a location and name for the dump file. Once the dump file has been written you can email it to Micro Focus SupportLine.

Alternatively, you might be asked to provide a log file created by the Consolidated Tracing Facility (CTF) - a tracing infrastructure that enables you to quickly and easily produce diagnostic information detailing the operation of a number of Micro Focus software components.

On UNIX, you can use the Micro Focus UNIX Support Scan Utility, `mfsupport`, to create a log file that contains the details about your environment, product, and settings. The `mfsupport` script is stored in `$(COBDIR)/bin`.

To run `mfsupport`:

1. Start a UNIX shell.

2. Set COBDIR to the product with issues.
3. Execute `mfsupport` from a directory where you have write permissions.

This creates a log file, `mfpoll.txt`, in that directory.

4. When the script finishes, send the `mfpoll.txt` file to your Micro Focus SupportLine representative.



Note:

If COBDIR is set to a location that does not contain `etc/cobver`, the script outputs the contents of `/opt/microfocus/logs/MicroFocusProductRegistry.dat` which keeps a list of the installed Micro Focus products.

If COBDIR is set to a location that does not contain `etc/cobver` or COBDIR is not set, `mfsupport` gives you the option to search your machine for possible product locations. Note that the search can take some time if you have a large amount of disc storage and files.

Creating Debug Files

If you encounter an error when compiling a program that requires you to contact Micro Focus technical support, your support representative might request that you provide additional debug files (as well as source and data files) to help us determine the cause of the problem. If so, they will advise you how to create them.

Disclaimer

This software is provided "as is" without warranty of any kind. Micro Focus disclaims all warranties, either express or implied, including the warranties of merchantability and fitness for a particular purpose. In no event shall Micro Focus or its suppliers be liable for any damages whatsoever including direct, indirect, incidental, consequential, loss of business profits or special damages, even if Micro Focus or its suppliers have been advised of the possibility of such damages. Some states do not allow the exclusion or limitation of liability for consequential or incidental damages so the foregoing limitation may not apply.

Micro Focus is a registered trademark.

Copyright © Micro Focus 1984-2013. All rights reserved.

This product includes software developed by Computing Services at Carnegie Mellon University (<http://www.cmu.edu/computing/>).