



Micro Focus COBOL Server 2.1 Update 1

A large, stylized graphic of a blue wave or ribbon that curves and loops across the lower half of the page. The wave is composed of multiple parallel lines in various shades of blue, creating a sense of motion and depth.

Release Notes

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Micro Focus COBOL Server 2.1 Update 1 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.

Product Overview COBOL Server provides the execution environment for applications created with Micro Focus Visual COBOL.

The product is available in two variants which you can install and use with the same license - COBOL Server which is the deployment environment for COBOL applications created with Visual COBOL for Visual Studio 2010 or Visual COBOL for Eclipse, and COBOL Server 2012 which targets applications created with Visual COBOL for Visual Studio 2012.

Compiling for COBOL Server or for COBOL Server 2012 Visual COBOL for Visual Studio 2010 and Visual COBOL for Visual Studio 2012 each target a different version of the COBOL run-time system - COBOL Server and COBOL Server 2012, respectively.

Ensure that, after you've edited the project in the preferred version of Visual Studio, you compile your source code in that version of Visual COBOL which targets the version of the COBOL run-time in which you want your applications to run.

For example, if you build your application using Visual COBOL for Visual Studio 2010 you cannot deploy the target files to COBOL Server 2012, you must use COBOL Server.

Installation



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

Installing on Windows

System Requirements for COBOL Server for Windows

Hardware Requirements

The disk space requirements are:

- 42MB for the Sentinel RMS license server.
- About 170MB for COBOL 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 XP 64-bit SP2
- Windows XP 32-bit SP3
- Windows Vista SP1 32/64-bit
- 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:

- COBOL Server 2012 is not supported on versions of Windows earlier than Windows 7.

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 COBOL Server, the machine does not have Microsoft Visual C++ 2010 Redistributable Runtime already installed, it will be installed as required by COBOL 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
```



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 Visual COBOL 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 COBOL Server for Windows

Installation Restrictions and Requirements

Before starting the installation, you should consider the following:

- Visual COBOL and COBOL 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.

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. Double-click the `cobolserver21_update1_2010_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 `cobolserver21_update1_2010.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 Visual COBOL but you can install it if you wish.

Installing as an Upgrade

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

Before installing, check *Installation Restrictions and Requirements*.

After Installing

To open the help, select **Start > All Programs > Micro Focus COBOL Server > Documentation** from the Windows Taskbar. From the left hand pane, select **Micro Focus Developer > Micro Focus COBOL Server**.

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**.

To repair your installation on older versions of Windows, such as Windows XP:


1. Click **Start Menu > Control Panel > Add/Remove Programs**.
2. Click your Micro Focus product in the list of installed programs.
3. Click **Click here for support information**.
4. Click **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** (or **Add/Remove Programs** on older versions of Windows) in **Control Panel**.
3. On older versions of Windows such as Windows XP, ensure that **Show Updates** (at the top of the Add or Remove Programs dialog) is checked, so that any hot fixes or WrapPacks are listed.
4. Click **View installed updates** in the left-hand pane.
5. 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 COBOL Server and Micro Focus License Manager. Uninstalling only COBOL 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 on UNIX

System Requirements for COBOL 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 COBOL 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 Visual COBOL 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
```

Installing COBOL 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_visualcobol_server_2.1_update1_platform
```

2. Run the installer with superuser permissions:

```
./webinstaller_visualcobol_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_visualcobol_server_2.1_update1_platform
```

2. Run the installer with superuser permissions:

```
./setup_visualcobol_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/VisualCOBOL`.

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

```
./webinstaller_visualcobol_server_2.1_update1_platform -  
installlocation="full path of new location"
```

or

```
./setup_visualcobol_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.



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_visualcobol_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/VisualCOBOL/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.

Installing as an Upgrade

This release works concurrently with version R4 of Visual COBOL, so you do not need to uninstall it. There are two options for installing the latest version in this case:

- Move the R4 installation to a different location and install the latest version to the default install location, `/opt/microfocus/VisualCOBOL`.

This ensures you do not need to change your environment. To move the existing older installation to a different location:

1. Execute the following command:

```
[ as root ] mv /opt/microfocus/VisualCOBOL /opt/microfocus/VisualCOBOLR4
```

2. Install the latest version as described in the section *Installing*.

- Install the latest version in a different location and set the environment to point to it. To do this, run the Visual COBOL 2.1 Update 1 installer with the `-installlocation` option:

1. Execute the following command:

```
./InstallFile -installlocation="/opt/microfocus/VisualCOBOL2.1"
```

2. Execute `cobsetenv` to set the environment and point to the new install location:

```
./opt/microfocus/VisualCOBOL2.1/bin/cobsetenv
```

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

To uninstall this product:

1. Execute as root the `Uninstall_VisualCOBOL21.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 Visual COBOL R4 release.
- This release requires the latest version of SafeNet licensing software. See *Software Requirements* in this document for more details.
- 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.

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:

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.

Co-existing with Earlier Micro Focus Products

Run-time system error due to COBCONFIG A run-time system error occurs if either the COBCONFIG or COBCONFIG_ environment variable is set when you run a Visual COBOL application or when you use Visual COBOL to edit or create projects and the configuration file it refers to contains entries that are not valid for Visual COBOL.

For example, this might happen if you have Net Express or Studio Enterprise Edition installed and either COBCONFIG or COBCONFIG_ is set for it.

To work around this issue, ensure that Visual COBOL is not running and then modify the configuration file by doing one of the following:

- If the invalid tunable is not needed by another application, remove it from the run-time configuration file.
- Add the following as the first line in the configuration file:

```
set cobconfig_error_report=false
```
- Unset COBCONFIG (or COBCONFIG_) or set it to another configuration file that does not contain the invalid tunable for the particular session you are running in.

File Handling

- When using a CGI/ISAPI application developed with the Net Express HTML Forms Designer in Visual COBOL, you may receive an error “unresolved external symbol _NMCNVRTI” or “unresolved external symbol _NMCNVRTO”.

To work around this issue, add the corresponding .obj file to the **Additional Directives** in the project properties, or use them from the command line to link the application: `cbllink filename.cbl NMCNVRTI.OBJ` (or `cbllink filename.cbl NMCNVRTO.OBJ`, respectively).

- If you are accessing Vision files through the Vision file handler (as opposed to the default Micro Focus File Handler) and you are upgrading from Visual COBOL version 2.0 to version 2.1, you must first uninstall version 2.0, otherwise the Vision file handler may not function correctly.

Fileshare

A write of a record with an alternate key where the alternate key is the first value for that key may now return a 0/2 file status rather than a 0/0 status if a record with that alternate key value has been deleted by uncommitted transaction (possibly the same transaction as that performing the write).

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](#)
- [Compiler](#)
- [Data Tools Converter](#)
- [Data Tools Vrecgen \(Character\)](#)
- [Documentation](#)
- [File Handling - External File Handler](#)
- [File Handling - Sort](#)
- [JVM - Debugger](#)
- [MF Communications Server](#)
- [MF Directory Server](#)
- [MVS REXX Emulation](#)
- [NCG](#)
- [RTS](#)
- [Setup Issues \(UNIX\)](#)
- [SQL: COBSQL](#)
- [SQL: OpenESQL](#)
- [XML syntax support runtime](#)

.NET Compiler

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- 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

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- 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 (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

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

Compiler

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- 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

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- The dfconv replacement input and output filenames are no longer truncated to the filename lengths used within the profile file.
1086569 (2599741)

Data Tools Vrecgen (Character)

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- The source files for the VRECGEN and VRECGEN2 utilities are now stored in the .\src folder in the product installation.
1087209 (2603963)

Documentation

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- 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 ()
- 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 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

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- EXTFH 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

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- 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

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- The JVM COBOL Debugger could only locate copybooks that were located in the same directory as the COBOL program.
1086348 (2597430)

MVS REXX Emulation

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- 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)

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- 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)

Setup Issues (UNIX)

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

1086610 (2600117)

SQL: COBSQL

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- The COBSQL preprocessor could not process options longer than 65 characters.

1085597 (2589416)

SQL: OpenESQL

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- The SQL JVM Run-Time .jar library file is now supplied as part of the Micro Focus COBOL deployment products for UNIX.

1087595 (2610662)

- 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 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

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- 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.

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.

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