Micro Focus Academic Program 2.2

Release Notes

2013-10-22

Contents

Micro Focus Academic Program 2.2 - 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.

Overview

The Micro Focus Academic Program brings contemporary software development tools and technologies to COBOL development helping to bridge the gap between the old and the new.

COBOL applications still run many of the world's business systems, therefore teaching the COBOL language is a great way to prepare your university's students for a robust IT career in today's economy.

The Micro Focus Academic Program is designed to support the education and use of the COBOL language within the academic setting. This program supports our academic partner community through the use of our COBOL development tools and materials within the classroom.

This program will enable your university to quickly join this growing league of similar academic organizations in support of the promotion and education of the COBOL language.

Welcome! We're excited to have you join our growing academic community.

Product Description

The Micro Focus Academic Program Edition package comprises the following products:

- Visual COBOL 2.2 - delivers the richest development experience for COBOL programming. On Windows, Visual COBOL is available for use with Eclipse or with Microsoft's Visual Studio 2010 or Visual Studio 2012 integrated development environments. On UNIX or Linux, it is available for use with Eclipse. Visual COBOL supports the development and deployment of both JVM COBOL and .NET COBOL, and of native COBOL applications.

  Variants of Visual COBOL include:

  - Visual COBOL for Visual Studio 2010 and Visual COBOL for Visual Studio 2012.
  - Visual COBOL for Eclipse.
- Enterprise Developer 2.2 - a contemporary development suite for Microsoft Visual Studio 2010 or for Eclipse that enables mainframe developers to maintain, develop and modernize mainframe applications regardless of whether these are to be deployed back on the mainframe or onto an alternative platform. Enterprise Developer supports IBM COBOL, IBM PL/I, IBM Assembler, IBM CICS, IBM IMS, IBM JCL, IBM DB2, IBM z/OS file formats and common batch utilities including SORT. This means you can develop and maintain the core mainframe online and batch applications under Enterprise Developer, then deploy them back on the mainframe or migrate them onto one of the Micro Focus production platforms available on UNIX, Linux, or Windows. Variants include:

  - Enterprise Developer 2.2 for Visual Studio
  - Enterprise Developer 2.2 for Eclipse

Micro Focus Academic Program differs from the full version of these products in a number of ways. The differences are:

- You cannot deploy applications on other machines, so Micro Focus COBOL Server and Enterprise Server are not supplied.
- An authorization code for the Micro Focus Rumba 3270 terminal emulator is not supplied.

Note: Micro Focus Academic Program is supplied for Academic use only. It is not to be used for any commercial purposes. You must be a registered Micro Focus Academic Program Partner in order to use this software.

For more information, follow the link in the Electronic Product Delivery email for the End User License Agreement.

Reporting Issues

For the latest information and discussions on this product, or to report issues, visit the *Micro Focus Community* Web site.

To check the latest documentation of this product online, go to the *Micro Focus Infocenter*.

System Requirements

Hardware Requirements

In general, most modern machines will have the required processor and available RAM to run the Micro Focus products under Windows effectively. For planning purposes, it is recommended to have a minimum of 2GB of RAM.

Visual COBOL and Enterprise Developer for Visual Studio

Visual COBOL and Enterprise Developer have the following requirements in addition to the requirements of Microsoft Visual Studio. See the Visual Studio documentation for details of the Microsoft requirements.

The disk space requirements are:

Platform	Visual COBOL	Enterprise Developer	Sentinel RMS License Manager
x86 Windows platforms	380MB	600MB	35MB
x64 Windows platforms	500MB	750MB	35MB

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

Visual COBOL and Enterprise Developer for Eclipse on Windows

The disk space requirements for Windows are:

Platform	Visual COBOL	Enterprise Developer	Sentinel RMS License Manager
x86 Windows platforms	1.05GB	1.2GB	35MB
x64 Windows platforms	1.3GB	1.45GB	35MB

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

Visual COBOL for Eclipse on UNIX/Linux

Visual COBOL has the following requirements in addition to the requirements of Eclipse. See the Eclipse documentation for details of its requirements.

Platform	Visual COBOL	Sentinel RMS license server
x86-64 running Red Hat Linux	664MB	33MB
x86-64 running SuSE SLES	666MB	33MB

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

Operating Systems Supported

Note: If you are using Visual COBOL or Enterprise Developer on a 64-bit operating system, you can produce either 32-bit or 64-bit applications.

For a list of the operating systems each individual product in this package supports, check the *Product Availability* section on the Micro Focus SupportLine Web site: *http://supportline.microfocus.com/ prodavail.aspx*.

- Enterprise Developer is currently supported on Windows 7, Windows 8, Windows Server 2012, and Windows Server 2008 only.
- Visual COBOL for Visual Studio 2012 is not supported on versions of Windows earlier than Windows 7.

Software Requirements

Windows

Note: The setup file will check your machine for whether the prerequisite software is installed and will install any missing prerequisites and the product components.

Visual Studio IDE

The following Microsoft software is required if you are going to use Visual COBOL or Enterprise Developer with Visual Studio.

- A full version of Microsoft Visual Studio 2010 or Microsoft Visual Studio 2012 (Premium, Professional, or Ultimate), or the the respective version of the Microsoft Visual Studio Integrated Shell. If you do not have any of them installed, the setup file will install the Visual Studio Integrated Shell.

  Note:
  - Microsoft Visual Studio Express Edition is not supported.

- Microsoft Windows SDK is required if you are using the Visual Studio Shell. See the *Microsoft Download Center* and search for Windows SDK.
- Microsoft .NET Framework 4.0. This is included with the above versions of Visual Studio.
- Microsoft .NET Framework 4.5. This is included with Visual Studio 2012.

  Note: Visual Studio 2010 Service Pack 1 (SP1) is required if you are using Visual COBOL for Visual Studio 2010 and Visual COBOL for Visual Studio 2012 on the same machine. If you are connected to the Internet, the setup file downloads and installs Visual Studio 2010 SP1 1 automatically. If you do not have Internet access, you need to download Visual Studio 2010 SP1 1 on a machine that has Internet connection, and then copy the installer to your machine.

  In addition, when building a native COBOL project that contains resources you must replace the cvtres.exe in the bin and bin64 directories of your Visual COBOL installation with the version of

the file which gets installed with Visual Studio 2010 SP1. You can download Service Pack 1 for Visual Studio 2010 from the *Microsoft Download Center*.

UNIX/Linux

The following list contains additional information for installing on UNIX or Linux:

- The Korn shell is required for the licensing daemon. After the installation, if the licensing daemon does not start, check and ensure the Korn shell is installed and then run the `/var/microfocuslicensing/bin/startmfcesd.sh` script to start the daemon.
- The pax archiving utility is required by the setup file. Pax is distributed with most UNIX/Linux systems but, if it is missing, you must install it separately. To verify pax is installed, run `pax --help` or `pax --version` at the command line.
- On Red Hat 6.*x*, you must have the following operating system libraries installed:

All Visual COBOL products	glibc-*.x86_64 glibc-*.i686 libgcc-*.x86_64 libgcc-*.i686
Additional libraries for Visual COBOL for Eclipse	PackageKit-gtk-module-*.x86_64 PackageKit-gtk-module-*.i686 gtk2-*.x86_64 gtk2-*.i686 gtk2-engines.*.x86_64 gtk2-engines.*.i686 libXtst-*.x86_64 libXtst-*.i686 libcanberra-gtk2-*.x86_64 libcanberra-gtk2-*.i686 webkitgtk.x86_64 webkitgtk.i686 xterm (any version) libgnome.x86_64 libgnome.i686
Additional libraries for HCO for SQL Server Tools	glibc-devel-*.x86_64 glibc-devel-*.i686

Visit the *Red Hat Web site* for more information.

- Xterm, the terminal emulator for the X Window System, is part of your UNIX/Linux distribution but is not installed by default. Use your UNIX/Linux installation media to install it.

- You need to set the JAVA_HOME environment variable. When installing the product, set this variable to a 32-bit Java installation or the installation terminates. For example, execute the following:

  `JAVA_HOME=java_install_dir`

  where *java_install_dir* is the path to the JAVA installation directory such as `/usr/java/javan.n`

- You need to add `$JAVA_HOME/bin` to your system PATH variable. To do this, execute:

  `export PATH=$JAVA_HOME/bin:$PATH`

- You need to set the LANG environment variable to pick up localized messages. The LANG settings are English and Japanese only.

- GNOME menus and buttons have been standardized across all applications so that icons are not displayed by default. To keep the icons and the look and feel of previous versions, enable the menus_have_icons property with the command:

```
gconftool-2 --type boolean --set /desktop/gnome/interface/menus_have_icons
true
```

Installation

Installation Restrictions and Requirements

Before starting the installation you should be aware of the following:

- If, when you install Visual COBOL for Visual Studio 2010, the machine does not have Microsoft Visual C++ 2010 Redistributable Runtime already installed, it is installed as required by Visual COBOL. The installation of Microsoft Visual C++ 2010 Redistributable Runtime adds a number of `.dll` files, without digital signatures, into the `winsxs` directory.
- If, when you install Visual COBOL for Visual Studio 2012, the machine does not have Microsoft Visual C++ 2012 Redistributable Runtime already installed, it is installed as required by Visual COBOL. The installation of Microsoft Visual C++ 2012 Redistributable Runtime adds a number of `.dll` files, without digital signatures, into the `winsxs` directory.
- 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.
- Visual COBOL and COBOL Server cannot coexist on the same machine.
- Visual COBOL for Eclipse and Visual COBOL for Visual Studio can exist on the same machine, but this might cause unpredictable behaviour.
- COBOL Server 2010 and COBOL Server 2012 can coexist on the same machine.
- Visual COBOL and Enterprise Developer cannot coexist on the same machine.
- If, when you install Visual COBOL for Visual Studio 2010, the machine does not have Microsoft Visual C++ 2010 Redistributable Runtime already installed, it is installed as required by Visual COBOL. The installation of Microsoft Visual C++ 2010 Redistributable Runtime adds a number of `.dll` files, without digital signatures, into the `winsxs` directory.
- If, when you install Visual COBOL for Visual Studio 2012, the machine does not have Microsoft Visual C++ 2012 Redistributable Runtime already installed, it is installed as required by Visual COBOL. The installation of Microsoft Visual C++ 2012 Redistributable Runtime adds a number of `.dll` files, without digital signatures, into the `winsxs` directory.
- If you are installing this as an upgrade, make sure that none of the product files are in use when you start the installation. Also, the Visual Studio Help Viewer must not be opened.
- 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 service (on Windows) or a process (on UNIX) from an existing product is stopped and uninstalled. On Windows, 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: `mfds -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 a Visual COBOL command prompt.
    b. Install the service. Enter the following command: `mfds -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 ("mfds") 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

Product Co-Existence

- Visual COBOL and Enterprise Developer cannot coexist on the same machine regardless of which IDE (Visual Studio or Eclipse) you install.

Downloading the Products

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 the Products

Use the individual setup files to install each product from the Micro Focus Academic Program package as follows:

Windows

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

UNIX

1. Give execute permissions to the setup file:

   `chmod +x setupfilename`
2. Run the installer with superuser permissions:

   `./setupfilename`

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

   The COBOL environment is installed by default into `/opt/microfocus/Visual COBOL` or `/opt/microfocus/Enterprise Developer`.

   A full version of Eclipse with the Micro Focus plugins already installed is present in the `/opt/microfocus/Visual COBOL/eclipse` or `/opt/microfocus/Enterprise Developer/eclipse` folders.

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

```
./setupfilename -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:
>   ```
>   ./ -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 licensing needs to be updated later, remove the file and install Sentinel RMS server manually.

3. Set up the environment:
```
./opt/microfocus/<ProductName>/bin/cobsetenv
```

4. To verify that your product is installed, execute:
```
cob -V
```

> ⚠️ **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 (such as `etc/profile`, `etc/bashrc`).
>
> 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.

To start Eclipse on Unix:

- If you are using a GUI interface, double-click the product icon (automatically installed on your desktop).

  > ✏️ **Note:** The installer automatically creates a shortcut icon for the product on the desktop for the user for which you ran the install script. If you need to create desktop icons for other users' desktops on the same machine, or if the icon was not created on the desktop for the root user, run the following shell script as the user you need to login as: `$COBDIR/bin/createdesktopicon.sh`

- If you are using a non-GUI interface, such as a terminal emulator, type the following from a command prompt:
  ```
  eclipse
  ```

UNIX Installer Issues

Licensing Daemon	If the Korn shell is not installed on your machine when you run the installer, the licensing daemon will not be started. To resolve this after you install the product, install the Korn shell and then run the `/var/microfocuslicensing/bin/startmfcesd.sh` script to start the daemon.
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 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.

After Installing

Visual COBOL and Enterprise Developer for Visual Studio

You are now ready to run Visual COBOL or Enterprise Developer. From the Windows taskbar click **Start > All Programs > Micro Focus *Product Name* > *Product Name* for Visual Studio**.

Note: The Start menu is not available on Windows 8 and Windows Server 2012. You use the Start screen to invoke programs.

Please refer to the *Start Here* and *Product Information* sections in your product Help. Here, you will find information on getting started including tutorials and demonstration programs.

Note:

- If you have problems trying to view the Micro Focus help, ensure that the Visual Studio Help Library is pointing to local help. From the Visual Studio menu click **Help > Manage Help Systems > Choose online or local help** and check the **I want to use local help** button.

- To view the help in Visual Studio 2012, ensure that the Visual Studio Help Library is pointing to local help. From the Visual Studio menu click **Help > Set Help Preferences > Launch in Help Browser**.

- For full details of the Visual Studio 2012 Help system, see the locally installed Microsoft Help Viewer 2.0 Help, which is available from Help menu in the IDE.

- In Visual Studio 2012, you may sometimes receive a message "Cannot find requested topic on your computer" when you click **Help** > **Micro Focus Product Help** > **Product Documentation**. You need to click Micro Focus Visual COBOL *n.n* for Visual Studio 2012 in the **Contents** tab to display the documentation as expected.

- If you install Visual COBOL for Visual Studio 2012 and its documentation is not available in the Microsoft Help Viewer, perform the following:

    1. In Visual Studio, click **Help** > **Add and Remove Help Content**.
    2. Choose the **Manage Content** tab.
    3. Check the **Disk** radio button, then navigate to the folder containing the Visual COBOL for Visual Studio 2012 documentation. By default, this is `%ProgramFiles(x86)%\Micro Focus \Visual COBOL\help`.
    4. Select `helpcontentsetup.msha`, and click **Open**.

5. In the content list, click **Add** next to the Visual COBOL entry.

6. Click **Update**.

7. Click **Yes** on the User Account Control and Microsoft Help Viewer dialog boxes to enable the update to continue.

The documentation for Visual COBOL for Visual Studio 2012 is added to the Microsoft Help Viewer.

Note:

This problem only occurs if you install Visual COBOL while the documentation for Visual Studio itself is being downloaded or updated. This might happen the first time you install or run Visual Studio.

Visual COBOL and Enterprise Developer for Eclipse

If you have used Eclipse from the same workspace before, the Eclipse perspective settings are not reset after installing any Micro Focus product. To pick up any new features, you must reset the COBOL perspective after installation:

1. Open the existing workspace with this product.

You may receive some warnings or errors which you can ignore.

2. Make sure you are in the COBOL perspective by clicking **Window > Open Perspective > COBOL**.

3. Click **Window > Reset Perspective**.

4. Click **OK**.

5. Reapply any customizations.

Installing X Windows on Windows

Some features of Visual COBOL for Eclipse and Enterprise Developer for Eclipse on Windows require an X Windows installation, so Micro Focus ViewNowX is provided with the product. To install, run the file `ViewNow_X_Server.exe` in your Visual COBOL installation. By default this will be in the `%ProgramFiles(x86)%\Micro Focus\Visual COBOL\ViewNowX` folder.

ViewNowX requires that your client machine has Microsoft Visual C++ 2008 SP1 Redistributable Package (x86) installed. If it is missing from your machine, the ViewNowX installation will offer a link to download the package.

Repairing

Windows

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**.

UNIX

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

Uninstalling

Windows

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. 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.

> **Note:** The installer creates separate installations for Visual COBOL, Enterprise Developer, Enterprise Server for .NET, and Micro Focus License Administration. Uninstalling only Visual COBOL does not automatically uninstall Enterprise Server for .NET, the Micro Focus License Manager or any of the prerequisite software.
>
> Enterprise Server for .NET must be uninstalled before you remove Visual COBOL. 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.

Some registry entries are not removed by the uninstallation process and you need to manually delete them.

The following folders might not be removed:

- `Micro Focus Product Name` folder in the Start menu - you can delete it manually.
- `%systemdrive%\Users\Public\Documents\Micro Focus` - includes the binaries and the log files of the samples which you have built.
- `%ProgramData%\Micro Focus` - includes some data files used by the Micro Focus licensing system.
- `%Program Files%\Micro Focus` - you can delete it manually.

UNIX

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

To uninstall this product:

1. Execute as root the Uninstall_VisualCOBOL22.sh script in the `$COBDIR/bin` directory.

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

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.

Known Issues

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

In addition, note the following:

AcuCOBOL File Handler
When using an interface of ACUFH other than MSSQL, you may experience a file operation delay when the interface fails to connect to a database. This failed connection also results in a memory leak. Set the environment variable MSSQL_DETACH to 1 to avoid both issues.

ASP.NET
It is not possible to run ASP.NET Web Sites or Web Services on a production machine (one that has Micro Focus COBOL Server installed) without an additional setup. This is because the production machine does not contain development tools such as the COBOL Compiler. To workaround this, you need to do the following steps:

1. Precompile the site before you deploy it using the **Publish Web Site** command in Visual Studio.
2. Edit the `.asmx` file of the Web service project or the `.aspx` file of the Web site and delete the `Language="COBOL"` statement.
3. Edit the `Web.config` file with a text editor and delete the line which contains: `<compiler language="COBOL"...`
4. Ensure that a .NET Server license is installed using Apptrack.

CICS
- An EXEC CICS DELAY statement may sometimes produce a difference of one second.
- When Visual COBOL for Visual Studio is initially installed, no CICSECM directives will be set on assembler files that are added to a project even when the IDE is configured to do so. To work around this problem, click **Tools > Options > Micro Focus > Directives**. Disable and then enable the check boxes under COBOL CICS and Assembler CICS.

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.

Compiler
When running with Java 1.7, if your class contains a static method called 'main' with a single string array parameter, in order for this class to be executable from the command line that main method should not have a returning item.

Debugging
There is an issue with "Wait for attachment" when you use Visual COBOL for Eclipse to debug applications that run on some UNIX/Linux platforms. Eclipse connects to the debugger on the remote machine, but might not attach to the process to debug the code.

To work around this issue, ensure that on the remote machine the TMPDIR environment variable is unset or has the same value for both HCO for SQL Server Tools server and for the running process you wish to debug. The HCO for SQL Server Tools server is the server which you started either directly with the $COBDIR/remotedev/startrdoserver script or indirectly using the daemon which is started with the $COBDIR/remotedev/startrdodaemon script.

To check the variable used by the HCO for SQL Server Tools server:

1. Open Remote Systems view in Eclipse on the Windows machine.
2. Right-click the **Shells** element of the server connection to be tested and click **Launch Shell**.
3. In the **Remote Shell** view, type `echo $TMPDIR` in the **Command** field, and press **Enter**.

   The value of the TMPDIR environment variable is shown - ensure it is the same as the one used by the process to be debugged.

   📝 **Note:** The value of TMPDIR used by the Development Hub server cannot be changed in the remote shell and must be set before you start the daemon or server.

Documentation

- In Visual Studio 2012, clicking **Help** > **Micro Focus Product Help** > **Product Documentation** results in the message "Cannot find requested topic on your computer". If you see this message, click Micro Focus Visual COBOL 2.2 for Visual Studio 2012 in the **Contents** tab to display the documentation as expected.
- If you install Visual COBOL for Visual Studio 2012 and its documentation is not available in the Microsoft Help Viewer, perform the following steps:

   1. In Visual Studio 2012, click **Help** > **Add and Remove Help Content**.
   2. Choose the **Manage Content** tab.
   3. Check the **Disk** radio button, then navigate to the folder containing the Visual COBOL for Visual Studio 2012 documentation. By default, this is `C:\Program Files (x86)\Micro Focus\<product name>\help`.
   4. Select `helpcontentsetup.msha` and click **Open**.
   5. In the content list, click **Add** next to the Visual COBOL entry.
   6. Click **Update**.
   7. Click **Yes** on the User Account Control and Microsoft Help Viewer 2.0 dialog boxes to enable the update to continue.

   The documentation for Visual COBOL for Visual Studio 2012 is added to the Microsoft Help Viewer.

   📝 **Note:**

   This problem only occurs if you install Visual COBOL for Visual Studio 2012 while documentation for Visual Studio 2012 is being downloaded or updated, which typically happens when you install Visual Studio 2012 or run it for the first time.

Database Access

If you have a remote COBOL project under Eclipse that uses DB2 ECM in Visual COBOL or HCO for DB2 LUW in Enterprise Developer and the DB2 software is not installed on the client machine where you are using the Eclipse IDE, you receive background parsing errors in your application. To resolve the issue, you can do either one of the following:

- Disable background parsing **Window > Preferences > Micro Focus > COBOL > Editor** and disabling the checkbox for **Background parsing**.
- Install the IBM DB2 client-side software on the machine on which you are running Eclipse. Go to the IBM Support Home and locate the page entitled "IBM Download Fix Packs for IBM Data Server Client Packages" .

Enterprise Server

- The Historical Statistics Facility may generate incorrect records for SSTM-enabled enterprise servers.

	• In Visual Studio, using **Submit JCL** from within the IDE does provide the option to create a temporary enterprise server when your project is not associated with an enterprise server.
Expanded Copybook View (in Visual Studio 2012)	• When you add a COPY statement in a COBOL program and then show it in Expanded Copybook View, the line for the copybook statement is read-only. If you then perform an Undo in the COBOL program, the COPY statement is removed while the contents of the copybook is still shown in the program. • **Replace All** does not work inside the Expanded Copybook View • Trying to paste a block selection inside the Expanded Copybook View does not work and deletes all lines of code which the block selection overlaps. • For copybooks with file extensions that are not traditionally associated with COBOL you must first add the file extension to the list of known copybooks extensions in **Tools > Options > Text Editor > File Extensions** before you can show them in Expanded Copybook View.
ICETOOL Emulation	ICETOOL emulation for managed code is not available in this release.
Installation	• When installing this product for Visual Studio 2010, if you already have Visual Studio 2010 Isolated Shell with Service Pack 1 (SP1) installed, you might experience problems with starting Visual Studio after the installation. This is a Microsoft issue relating to the Integrated Shell (installed as part of the Micro Focus product installer) overwriting some Visual Studio SP1 components. To resolve the issue you need to repair Visual Studio 2010 SP1. • On UNIX, check *UNIX Installer Issues* before you start the installation. • If you are using the latest version of Java 1.7 on Linux, you might receive some warnings when you start this product. To resolve the issue, it is recommended that you install an earlier version of Java 1.7 and set JAVA_HOME to that.
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.
Micro Focus Rumba	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 Micro Focus 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.
Native COBOL	On Windows XP, when building a native COBOL application in Visual Studio, a dialog may pop up with error "Unhandled exception at 0xc0006866 in cobol.exe: 0xC0000005: Access violation reading location 0xc0006866)". This is caused by Symantec antivirus runtime protection. To resolve this, you need to apply the following fix from Symantec: *http://www.symantec.com/business/support/index?page=content&id=TECH97280&locale=en_US*.
Open PL/I	Currently, the Open PL/I Codewatch debugger does not run on 64-bit Windows 8.
Resource Adapters	Trying to deploy the local resource adaptor `mfcobol-localtx.rar` to WebLogic may fail with a ClassCastException. To work around this issue, you need to deploy `mfcobol-xa.rar` first, then need to undeploy this file and deploy the local one, `mfcobol-localtx.rar`. If there are issues deploying using the WebLogic GUI, you can use the command line. If there are issues with this as well, try reducing the length of the command (for example, by moving the file to a location with a shorter path).

Visual Studio IDE	• In your project properties, the Application page currently allows you to select any of the static methods in the application as a Startup object. This is incorrect. You should always set only the first static method or the program name as a Startup object in order for the project to build.
	• In Visual Studio, the controls on the COBOL page in the project properties are not displayed for a WPF project. To workaround this issue, open the Application page in the project properties and from the drop-down list under Output type choose the same output type that was already selected. Close the project property pages and save the project. The next time you open the project properties, the COBOL page is properly displayed.

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