Studio Enterprise Edition 6.0 for Windows ServicePack 2 WrapPack 2

Release Notes

Contents

Studio Enterprise Edition 6.0 ServicePack 2 WrapPack 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.

Installation

System Requirements for Studio Enterprise Edition

Hardware Requirements

Studio Enterprise Edition has 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:

- 58MB for the Sentinel RMS license server
- 200MB for Micro Focus COBOL integration into Visual Studio
- 516MB for a minimum installation of the Net Express IDE only

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

Note: You can produce 64-bit and 32-bit applications on 64-bit operating systems.

The following platforms are supported:

32-bit Windows Platforms
- Windows Server 2003
- Windows Server 2003 R2
- Windows Server 2008
- Windows Vista
- Windows XP Professional SP3 or later
- Windows 7

64-bit Windows Platforms
- Windows Server 2003
- Windows Server 2008
- Windows Server 2008 R2
- Windows Vista
- Windows XP Professional SP2 or later
- Windows 7

Citrix and Terminal Server
- Windows Server 2000
- Windows Server 2003
- Windows Server 2003 R2
- Windows Server 2003 - 64-bit
- Windows Server 2008
- Windows Server 2008 R2
- Windows 7

Software Requirements

- This release requires and will upgrade Studio Enterprise Edition ServicePack 2 or Service Pack 2 WrapPack 1.

  ⚠️ **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 Studio Enterprise Edition 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.

  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*.

ou need to install the following software beforehand:

The following functionality, tools and features have additional requirements:

Visual Studio IDE

- Microsoft Visual Studio 2008 Service Pack 1 or Microsoft Visual Studio Shell 2008. Microsoft Visual Studio Express Edition is not supported.
- Microsoft Windows SDK is required if you are using Visual Studio Shell. See the *Microsoft Download Center* and search for Windows SDK.
- Microsoft .NET Framework 3.5. This is included with the above versions of Visual Studio.

Enterprise Server

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

  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, apart from Windows Server 2003. 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.

Server Enterprise Edition for .NET

- Microsoft .NET Framework 4.0
- Microsoft SQL Server 2008 R2. (For beta or development installations, SQL Server Express 2008 R2 is sufficient.)

  You can download Microsoft's SQL Server from *http://www.microsoft.com/sqlserver/en/us/get-sql-server/try-it.aspx*.

- A TN3270 terminal emulator. Micro Focus Rumba is supplied with this product.

  Note: You also need to enable IIS and some additional Windows features. Read the *Quick Start* section in your Server Enterprise Edition for .NET help for further instructions on how to set up your operating environment.

Java Beans

- Java 2 Platform Standard Edition (J2SE) 1.4 or later from Oracle or IBM. Oracle versions 1.4 and later are supported, but only IBM version 1.4 is supported. You can download the J2SE from *www.oracle.com*.

Java Compilation

- 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
  ```

Windows Forms

- Microsoft Visual Studio is required for using the Service Interfaces feature to generate Windows Forms and ASP.NET Web site test clients.
- Microsoft Internet Information Service (IIS) is also required for generating Windows Forms test clients.

Windows Help Files

- To view Windows help (`.hlp`) files on versions of Windows Vista and later, you need to install the Windows Help program (WinHlp32.exe) for the respective version of Windows. You can download the program from the Microsoft Download Center.

Installing Studio Enterprise Edition

Installation Restrictions and Requirements

Before starting the installation you should consider the following:

- Studio Enterprise Edition and Server Enterprise Edition cannot co-exist on the same machine.
- If, when you install Studio Enterprise Edition for Visual Studio 2008, the machine does not have Microsoft Visual C++ 2008 Redistributable Runtime already installed, it is installed as required by Studio Enterprise Edition. The installation of Microsoft Visual C++ 2008 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.
- 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 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: `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 Net Express 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

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

Use the setup file on your machine and install the product as follows:

1. Run the `NXP32xxxxxxxx.msp` 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 Visual Studio and 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 Studio Enterprise Edition but you can install it if you wish.

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

Windows

📝 **Note:**

Before you uninstall Studio Enterprise Edition 6.0 SP2 WS2, if you use the SQL Option for DB2 (XDB components), you need to back up your settings as follows:

1. Back up the `XDB.INI` and `XDBNET.INI` files in the `<install-dir>\MFSQL\CFG` directory.
2. Type the following at a Studio Enterprise Edition command prompt in order to export the XDB Server registry settings to a file:

   ```
   SRVCNX GENERATEFILE=full_path_to_file
   ```

After uninstalling SP2 WS2, you can restore the settings as follows:

1. Copy the `XDB.INI` and the `XDBNET.INI` files you backed up back into the product `<install-dir>\MFSQL\CFG` directory.
2. Type the following at a Studio Enterprise Edition command prompt to restore the XDB Server registry settings:

   ```
   SRVCNX USEFILE=full_path_to_file
   ```

If the XDB Server fails to start, examine the Windows Event Viewer Application Log. When there are problems with the `XDB.INI` file, events with IDs 104 and 107 for the "Micro Focus Studio 6.0 XDB Service" report that "The XDB Server initialization process failed" and "Invalid value in XDB.INI [Server] variable XSRVCFG" . In that case, contact Micro Focus SupportLine for help with restoring the proper values into the `XDB.INI` file.

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. On versions of Windows Vista and later, click **View installed updates** in the left-hand pane.
5. Select the product and click **Remove** or **Uninstall**, respectively.

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:** When you installed, three separate items were created on the Start menu: Micro Focus Open PL/I 8.1, Micro Focus Studio Enterprise Edition 6.0, and Micro Focus License Management System.

Some registry entries are not removed by the uninstallation process and you need to manually delete them. These registry entries are for event logging and are created at run time, as follows:

• SYSTEM\CurrentControlSet\Services\Eventlog

- Micro Focus Server[<*SERVER_NAME*>] with the following entries:
    - CategoryCount
    - CategoryMessageFile
    - EventMessageFile
    - TypesSupported

In addition, the following registry entries are not removed. These are created the first time that an Enterprise Server that has been enabled for performance monitoring starts up:

- Micro Focus Server\Performance\Active Servers
- Micro Focus Server\Performance\PerfIniFile

Licensing Information

> **Note:**
> - This release uses the license keys for the Studio Enterprise Edition 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.

What's New

Enterprise Server

Enterprise Server now supports standard ECI calls to Mainframe Subsystem regions. The External Call Interface (ECI) allows non-CICS programs running outside the server to invoke CICS programs within a region opening up access to legacy business logic.

ECI client programs can run on the same machine as the enterprise server and, in this configuration, can communicate across shared memory or through the "Web Services and J2EE" listener. Programs running on different physical hardware submit ECI requests through the listener.

HCO for SQL Server (HCOSS)

HCO for SQL Server supports rowset cursors.

OpenESQL

This release includes the following enhancements:

SQL Compiler Directive Options

OpenESQL has been enhanced to support the following new SQL compiler directive options:

DATE

Controls the reformatting of date values in output parameters and in input parameter character host variables when DETECTDATE is also specified.

TIME

Controls the reformatting of date values in output parameters and in input parameter character host variables when DETECTDATE is also used.

DATEDELIM

Specifies a single character as the delimiter between the year, month, and day components to override the default delimiter determined by the HCOSS DIALECT or DATE directive specification.

TIMEDELIM

Specifies a single character as the delimiter between the hour, minute, and second components to override the default delimiter determined by the HCOSS DIALECT or TIME directive specification.

TSTAMPSEP

Specifies a single character as the separator between the date and time parts of timestamp and date/time data.

SQL Server

We now support Microsoft SQL Server 2012.

Open PL/I

This release includes the following enhancements:

- Support for WCHAR data types and associated built-in function enhancements. See *Language Reference Manual* for more information.
- Support for Big-Endian CHAR VARYING on Intel chipsets
- Support for PLICTF, PLIFILL, PLIMOVE, PLIOVER, VALIDDATE built-in functions
- Support for the NOINIT and PARAMETER attributes of the DECLARE statement
- Support for XN (hex) binary fixed-point and numeric literal constants, as well as for punctuating constants
- New TINY and HUGE built-in functions
- Support for character picture data types. See *Language Reference Manual* for more information.
- Preprocessor for SQL Server (HCOSS)
- A new PLITEST debugger attach facility
- Macro preprocessor enhancements that include:

  - Support for multiple closure
  - Support for 100-byte variable names
  - Support for %SELECT,%DO WHILE,SYSVERSION, ||=
  - Support for the `-incafter` directive which allows you to add an include file without having to modify the customer source.
- The DB2 LUW precompiler now allows you to specify an userid and a password
- Integration with Visual Studio 2010
- Early Adopter support for Oracle through the ODBC interface

WebSphere Support

Support has been added for IBM WebSphere 8 Application Server.

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:

ASP.NET It is not possible to run ASP.NET Web Sites or Web Services on a production machine (one that has Micro Focus Server Enterprise Edition 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.

-1080101

Batch Scheduler Integration The documentation for the Micro Focus Batch Scheduler Integration (MFBSI) feature is erroneously included in the product Help for Studio Enterprise Edition, Server Enterprise Edition, and Studio Enterprise Edition Test Server. MFBSI is not available in these software products.

CICS Web Interface Tutorials The walkthroughs demonstrating how to use Enterprise Server with Web-enabled CICS applications require some additional steps.

> **Web Server** After the *Import Files from Demonstration Program* stage, you need to edit the file `acctweb.cbl` to change `CALL 'DOCCREATE' USING WS-TOKEN` to `CALL 'DOCCREAT' USING WS-TOKEN`.

> **Web Client** At the *Configure the Enterprise Server* stage, on the **General** tab, add the following entry in the **Configuration Information** text box:
>
> ```
> [ES-Environment]
> ES_DOCTEMPLATE_PATH=c:\tutorials\webclnt\html
> ```
>
> At the *Start WEBCLNT Server* stage, you must add DFHWEB to the DEMOSTRT startup list as well as DFHCWI, and run `CINS DFHWEB` from your TN3270 emulator.

COBOL Compiler Defining a group typedef in one program scope and then using it in declarations in another program scope could lead to incorrect execution results when fields within that structure are accessed. For examples of this problem see the following KB article: *Incorrect execution results when using typdef structures -- Studio Enterprise Edition* .

Database Connectors When you use Database Connectors, you may receive a licensing error "Database Connector license not found or is expired" though a valid license is installed. To workaround this please contact your Micro Focus SupportLine representative and ask that they provide you with an ACUCOBOL-GT license for the Database Connector product you are licensed for.

Debugging Start Point	By default, the first file added to a Net Express project is selected for debugging whether or not it is a `.cbl` file. You can override the default file by selecting **Debug > Settings** and entering the name of the file in the **Start Animating at** field.
HCO for Microsoft SQL Server	When stored procedures are used with the ODBC driver included with SQL Server 2008 a bug in the driver causes SQL Server to leak memory. This affects applications using OpenESQL that either call stored procedures directly, or that use the SQL ACCESS, BIND or DBRMLIB directives.
	The fix for the bug is included in Cumulative Update 5 for SQL Server 2008 R2 for SQL Server 2008 R2. This can be obtained from http://support.microsoft.com/kb/2438347.
	Users of Host Compatibility Option for Microsoft SQL Server (HCOSS) should apply this fix before deploying applicatons that use HCOSS.
IDE	If you use an explorer mouse with navigation buttons, these will not function when editing COBOL source files in the Visual Studio editor. You can use the navigation buttons on the standard toolbar instead.

Installation

- If you have any Studio Enterprise Edition 6.0 ServicePack 2 Hotfixes installed, they need to be removed before you installStudio Enterprise Edition 6.0 ServicePack 2 WrapPack 2. If the Hotfixes are not removed, the following error message is displayed during the install, and the install exits: "Error 2771. Upgrade of feature DOTNET has a missing component."
- A bug in 64-bit Windows 7 may cause the display of the Compatibility Assistant dialog during the installation of the product showing incorrectly that aslmpclocate.exe and init2aslm.exe are not compatible. The two utilities run properly and the install is successful. To avoid receiving this notification, run Windows update and install update KB978637 before installing this product.
- If, when you start Visual Studio, you receive a message box about Micro Focus package load failures, check that the Packages folder is on the PATH. If it is not, click NO to disable loading the packages.

  If you accidently click YES, you need to re-enable loading the packages, as follows:

  1. Open a Visual Studio command prompt from the Start menu.
  2. Enter the command:
     ```
     devenv /ResetSkipPkgs
     ```

  When you reboot the machine, the problem is resolved, the PATH is set up correctly and the packages are found.
- Installing this release as an upgrade to a previous version of the product might take longer in relative terms compared to a clean install.
- The `sqlda.inc` file in the `<install-dir>\base\include` directory is missing an attribute. To fix the problem, open the file with administrative rights in an editor such as Notepad++, navigate to the line that contains `3 sqlname char(30);` and add the `var` attribute as follows:
  ```
  3 sqlname  char(30) var;
  ```

J2EE Connector	No XA transaction support for WebSphere 6.1 using the EJB 3.0 Feature Pack is provided.
Micro Focus Communications Server	If MFCS is configured in a non-standard error-handling mode, there is a small possibility that a trap will occur when the region is stopped.

Microsoft SQL Server Express Edition
To install successfully Microsoft SQL Server Express Edition on Windows XP, you need to have Microsoft Installer 4.5 and PowerShell 1.0 installed. You can install Microsoft Installer 4.5 from the Autorun. Download PowerShell 1.0 from the Microsoft website.

Open PL/I Compiler
Named constants whose "value type" matches the named constant type, such as:
```
dcl x fixed bin (31) value ('7fff'Bx);
```
cannot be used where restricted expression evaluation is required, for example:
```
dcl myarr (x) fixed bin(31) static;
```

Service Interfaces
- When importing service interfaces from Net Express projects into Visual Studio, any program source that the service interface relies upon must be at the root level of the target Visual Studio project - it cannot exist in subfolders within the Visual Studio project.
- Please leave the Build Action Setting for a Service Interface set to None (the default). Setting the Build Action for a Service interface from the default value of "None" to "Compile" will result in service interface properties not being displayed.

WebBook Sample
In order to build and run the WebBook sample program successfully you must first build the WinBook sample. You then need to copy the LegacyBook.dll, LegacyBook.pdb, BookWrapper.dll and BookWrapper.pdb files from the `bin` folder of the WinBook solution to the `bin` subfolder in the directory of the WebBook solution.

Resolved Issues

The resolved issues that customers have reported are listed in this section. The numbers that follow each error 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.

Errors have been fixed in the following areas:

- *.NET Native Debug*
- *AgentServices API*
- *ASC Automatic Synchronize Compil*
- *CAS (COBOL App Server) General*
- *CAS Security*
- *CAS XA Switch modules*
- *CCI TCP/IP*
- *CICS Emulation*
- *Client/Server Binding*
- *Cobdebug*
- *Compiler*
- *Compiler Front-end*
- *Data Tools Converter*
- *Documentation*
- *Environment*
- *File Handling - External File Handler*
- *File Handling - Fileshare*
- *File Handling - Rebuild*
- *File Handling - Sort / JCL Sort*
- *HCO for Microsoft SQL Server*
- *IDE Debugging*
- *Interface Toolkit General*
- *Interface Toolkit Mapper*
- *LE370 Support*
- *Macro Preprocessor*
- *Mainframe Call Generator Client*
- *MF Communications Server*
- *MF Directory Server*
- *MF Server Administrator (GUI)*
- *MFA: GUI components*
- *MFIO*
- *MLDAP API Interface*
- *Monitoring and Management*
- *MTO - CICS BMS Screen painter*
- *MTO - CICS Emulation*
- *MTO - CICS ESMAC*
- *MTO - CICS Supplied Transactions*
- *MTO - CICS Utilities*
- *MTO - IMS DB*

- *MTO - IMS MFS*
- *MTO - IMS Other*
- *MTO - IMS TM*
- *MTO - IMS Utils*
- *MTO - JCL ESMAC*
- *MTO - JCL MVS*
- *MTO - JCL System Catalog*
- *MTO - JCL Utils*
- *MTO - JCL Utils - IDCAMS*
- *MTO - JCL VSE*
- *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*
- *SQL: Cobsql*
- *SQL: DB2 ECM*
- *SQL: HCO for SQL Server*
- *SQL: OpenESQL*
- *Visual Studio IDE*
- *Web Service Client*
- *XDB INZUTILB Utility*
- *XDB JDBC Driver*
- *XDB Server*
- *XDB SQLWizard*
- *XDB: Problems not classed above*
- *XML syntax support runtime*

.NET Native Debug

- Regions, both 32- and 64-bit, can now be started successfully from Server Explorer.

   1080428 (2529415)

AgentServices API

- For a program-based Service Interface, for any mapped COBOL data item that has an OCCURS with the new COUNT IN clause, at service run-time, upon entrance the number of occurences of the corresponding element in the SOAP input will be placed in the data item specified in the COUNT IN clause, and upon exit the value of that data item will dictate the number of occurences of the corresponding element to put in the SOAP output.

   1081944 (2540368)

ASC Automatic Synchronize Compil

- The destination folder returned from the ASC user exit program ASCBCOPY is now used for compiling in production in addition to the destination folder for the copy to production.

   1085229 (2579380)

CAS (COBOL App Server) General

- ES_DFLT_USR_JES environment variable is now honored for cassub. Jobs submitted from the command line using cassub.exe without the '-u' option will now run as JESUSER and not mfuser.

  1082264 (2550825)
- Various intermittent crashes in MFCS when TN3270, CICS Transaction Gateway, or IMS Connect conversations ended have been fixed.

  1081966 (2543488)
- Numerous problems with JCL HSF records have been resolved.

  1083121 (2557267)

CAS Security

- The MLDAP ESM Module, which provides LDAP-based security for Enterprise Server, now lets you configure the LDAP timeout. Set it in the [LDAP] configuration section using the name "timeout"; the value is the timeout in seconds. The timeout for connecting to the LDAP server can be set separately using the name "connect timeout". See mldapesm.html for more information.

  1082997 (2558350)
- When using Enterprise Server with External Security and the MLDAP ESM Module, a change-password request is now ignored if the new password matches the old one.

  584831 ( )
- With the MLDAP ESM security module, when the "mode=bind" option is enabled, a user who has an expired password or the must-change-password flag set can now sign on if a new password is supplied with the sign-on request and the password is changed successfully.

  1082750 (2556130)
- The MLDAP ESM Module can now be configured to support an additional wildcard character, "+", which matches any one character in the resource, user, or group name. To enable this wildcard, set "plus-wildcard=yes" in the [Operation] section of the Security Manager configuration area.

  1083460 (2565125)
- The Audit Facility events generated by Enterprise Server External Security for the Auth and XAuth operations now include a parameter describing the kind of access requested by the Auth or XAuth call.

  1081166 (2537472)
- When using the MLDAP ESM Module for Enterprise Server security, if a resource has an ACL with two applicable ACEs, where one is a Deny ACE for the exact name of a group (eg "deny:FOO group:read"), and the other is an Allow ACE for the exact name of a user (eg "allow:BAR:read"), the user is now allowed access.

  1084543 (2577924)

CAS XA Switch modules

- The JCL Job Stream no longer completes with a return code of 0 when XA Resource Manager reports an initialization error.

  1082602 (2524118)

CCI TCP/IP

- CAS utilities such as cassub or casout, and COBOL Web Service clients, no longer timeout prematurely when used with an SSL-enabled connection.

  1082906 (2557202)

CICS Emulation

- A region sometimes failed to start if a large number of libraries were specified. The size of the load module concatenation list has been increased to address this.

  1084287 (2574862)

Client/Server Binding

- Various issues with Client/Server Binding (when used with the CCI communications API) have been addressed. The client limit should now be enforced correctly, and problems with service registration and hung client processes have been eliminated or reduced.

  1083869 (2565987)

Cobdebug

- An invalid parameter no longer occurs when a progid longer than four characters is specified with the CICS type when using cobesdebug.

  1081596 (2542994)

Compiler

- A COMPUTE ROUNDED statement where the precision of intermediate results exceeds Enterprise COBOL's digit limit now produces mainframe compatible results (when the appropriate ARITHMETIC directive setting is specified).

  1081927 (2546074)
- The IBMCOMP mainframe emulation directive no longer affects the behavior of PIC X(n) COMP-5 fields which are an MF extension.

  1081865 (2546402)
- Hyphenated copybook names are now flagged under IBM mainframe dialects.

  1082909 (2558385)
- Fields defined as PIC X(8) COMP-5 now behave correctly with the IBMCOMP directive.

  590370 ( )
- When a user preprocessor which does not fully conform to the preprocessor stacking protocol is stacked with the CP preprocessor, copybooks which have standard extensions are still resolved as expected.

  1084107 (2570694)
- Visual Studio no longer displays an error when opening the attached apman1.cbl.

  1085708 (2590819)

Compiler Front-end

- A problem with an END statement being matched to a PROC statement with multiple labels has been fixed.

  1077132 (2488726)

Data Tools Converter

- DFCONV no longer fails on AIX with RTS error 200 or RTS error 252 when processing a record layout file (STR) containing ODO data items.

  1081674 (2544023)
- The DFCONV field has been increased from eight to nine digits in order to display a larger record count.

  1085662 (2589387)

Documentation

- When invoking MFSORT from the command line, the maximum length of the command is 1024 characters. Characters after this limit are ignored, and if this truncation causes an invalid/incomplete command, an error is produced.

  592933 ( )

- The documentation was not clear about the range of acceptable values of EX_XA_????_NB_RETRIES or the consequent system behaviours. This has been corrected.

  1085893 (2593300)

- The documentation has been updated to clarify the effect of escape characters on path names.

  1086013 (2594224)

- In addition to the LMFCOMM environment variable, you can use the ESLMFCOMM environment variable to set the location where the LMF-common pipe files are created.

  1082173 (2549723)

- When you create or edit a CICS SIT resource in ESMAC, the paths of recoverable and non-recoverable temporary storage queues are now specified in separate fields, Path (rc) and Path (nr).

  1084877 (2578440)

Environment

- The files mfeslm.conf and mflm.conf created by eslminstall and lmfinstall have been updated to work correctly when Red Hat 6.1 machines are rebooted and use the upstart mechanism for starting process at boot time.

  1083159 (2561581)

File Handling - External File Handler

- Invalid XML syntax in MF.MFFH.XML has been corrected.

  589406 ( )

- CTF tracing no longer defaults to showing CTF handles as errors. CTF tracing for handles now only appears for DEBUG and ERROR levels.

  1083551 (2566161)

- Reading IDXFORMAT"9" records non-transactionally over fileshare no longer causes any issues.

  1083646 (2566578)

- Setting STRIPSPACE to OFF now correctly honors the record length and allows trailing spaces for LSEQ files.

  573921 ( )

- Support has been added to allow trailing spaces in LSEQ files when used with the variable STRIPSPACE=OFF, when printing records via stdout or piping to a file.

  585740 ( )

- Sequential files on a 64-bit machine are now correctly padded to fill the LRECL.

  586461 ( )

- When opening a mainframe file for input, the file is now not optional as per the mainframe.

  1082362 (2506971)

- Cobfhrepro now works correctly when session id is specified.

  590271 ( )

- The rebuild help message file has been updated to correct a typo.

  592271 ( )

- If the DDname is missing from JCL, the value of COBDATA is not used to search for a file.

  1084935 (2559292)
- The maximum field length that MFSORT supports for PD summary fields is extended from 9 bytes to 18 bytes.

  1084961 (2581353)

File Handling - Fileshare

- It is now possible to open the same indexed file 1024 times from a single fileshare client. Any further attempts will results in a cobrts 9/015 - Too many indexed files open.

  1084385 (2576603)
- Closing a file using FSVIEW now correctly removes the file from fileshare's open file table.

  587706 ( )
- Using a READ statement after a CLOSE REEL through Fileshare could result in a 9/077 error.

  587474 ( )
- The FSVIEW option 'stats get' gives the statistics for current users, peak users, file opens and peak file opens. The corresponding FSVIEW API is FSV-C-get-stats.

  1083664 (2567737)
- FSVIEW will no longer process the last command in a command file twice.

  589764 ( )

File Handling - Rebuild

- If the checkpoint LAST is set and no checkpoint exists, BATCH BACKOUT now backs out of the entire log.

  1081493 (2541220)

File Handling - Sort / JCL Sort

- A sort using SORTTEMPSPACE no longer ever results in a COBRTS 252 error.

  1081943 (2546898)
- When writing to EBCDIC files, DATE constants will now correctly be converted into EBCDIC format.

  586917 ( )
- CENTWIN and Y2PAST are now supported as PARMS.

  1080717 (2531364)
- Sort now closes down correctly after an RTS 163 error, and is now able to carry on and process further jobs.

  1082133 (2544148)
- When combining OUTFIL and SORTOUT files where headers and trailers were used, SORTOUT sometimes contained mainframe printer control characters.

  1082048 (2548488)
- An RTS 252 error no longer occurs if RTS memory checking is enabled and outfil processing is used in a sort card.

  1081337 (2540109)
- Setting SORTSPACE to the same value as SORTTEMPSPACE no longer causes an RTS 252 to occur.

  1081277 (2539633)
- If a SUBSYS is specified and does not exist, SORT reverts to using EXTFH and emits a warning message.

1081570 (2542992)

- PARM RC16 is ignored but the comment line reports a warning.

1081203 (2537395)

- A SORT performed from REXX no longer causes a COBRTS 114 error.

1081942 (2546794)

- SORT will now correctly compare INCLUDE/OMIT parameters when SUM FIELDS=NONE.

1083014 (2558088)

- The informational "Operand 'VLSHRT' Ignored" message has been removed from the sort sysout.

1083225 (2562501)

- When using MFSORT, smaller records are padded to the size of the minimum record length of a VB file and the record length is changed to the minimum of sortout.

1082943 (2554482)

- SORT now works correctly when SYSIN is given as LSEQ PDS Member.

1082529 (2550678)

- The TOTAL field length calculation now works correctly when TOTALs are zeros.

1082887 (2558079)

- SORT worked incorrectly for multiple fields to be converted in INREC/OUTREC/OUTFIL OVERLAY syntax.

1084481 (2577157)

- Using SYMNAMES sometimes caused SORT to use the wrong field position and lengths.

1083320 (2563738)

- When using MFJTOOL with a VB input file, an appropriate error is thrown when the output file is not VB or has not worked successfully when the output file is VB. Previously, a COBRTS 139 error was thrown.

1084567 (2577626)

- SORT now works correctly when there are concatenated VB files with different record lengths in SORTIN.

1084194 (2573990)

- SORT now gracefully handles the error when there is an INCLUDE/OMIT condition with invalid HEX/ Binary digit.

1084231 (2574465)

- SORT now ignores the operand 'WORK' along with its value.

1081023 (2533397)

- The MFSORT help screen now shows that OPTION is supported.

590260 ( )

- Trailers are now included in the SYSOUT outfil record count.

1084193 (2573272)

- Records following HEADER2 and HEADER3 will now be the correct length.

590270 ( )

- Header lengths are now calculated correctly, taking line feeds into account instead of giving a SORT099I error. Headers will now be printed for outfiles that do not have any records.

1083701 (2565909)

- Sort now displays HEADER2 at the start and TRAILER2 at the end of each page.

1083702 (2566545)

- Data format FI is now supported in the OUTREC edit fields section.

1083495 (2565051)

- Sort now works correctly when OPTION COPY is given before the SORT FIELDS in SYSIN.

  1083679 (2565053)
- SORT caused different sort processing for large sort cards. This has been fixed so SORT now returns an error message and exits the sort processing when the sort card has more than 1024 INCLUDE/ OMIT conditions.

  1084065 (2571660)
- The ALLDUPS option of the ICETOOL emulation now correctly separates records with duplicates and without duplicates.

  1085463 (2582219)

HCO for Microsoft SQL Server

- "UPDATE WHERE CURRENT OF <cursor name>" SQL statements now work as expected when executed against SQL Server databases.

  1085003 (2580194)

IDE Debugging

- When debugging a CICS transaction which uses the EXEC CICS LINK syntax to call a program, the value of data-items in the program now show the correct values if the transaction is running from an Enterprise Server configured as 64-bit.

  1081291 (2539827)

Interface Toolkit General

- In the Interface Mapper Toolkit, for Operations, the "User Exits" tab now exposes all 10 Request Handler User Exits.

  1082032 (2548426)
- When executing the imtkmake command using either a command-line "session type" parameter or by setting "session type" in a property file, a stateful J2SEBean was not being generated. This has been corrected.

  593480 ( )
- o The default Generate Trace Level and Run Trave Level values erroneously defaulted to Low. They now correctly default to NONE and LEVEL_0 respectively.

  593269 ( )

Interface Toolkit Mapper

- In the Service Interface editor, an item of a reusable field can now be of a type that itself refers to a reusable field.

  1082293 (2542739)

LE370 Support

- When using LE services in an Enterprise Server IMS application, you no longer need to make several attempts to assign a heap memory segment. When the Enterprise Server region is shutdown, the memory is recovered correctly.

  1083119 (2560472)

Macro Preprocessor

- You no longer receive errors when the Macro Preprocessor processes an %INCLUDE filename when it is preceded by a %DECLARE statement with the same name.

1084534 (2578366)

Mainframe Call Generator Client

• RJSE job steps with more than 127 records will no longer cause rjseca.dll to trap and the step to abend 0C4.

1084126 (2572626)

MF Communications Server

• Intermittent failures in the CICS Web Interface servers that send chunked responses have been fixed.

590777 ( )
• A problem with MFCS crashing intermittently while processing inbound CICS Web Interface requests has been fixed.

587809 ( )
• The IMS Connect (OTMA) feature of Enterprise Server no longer crashes, creates spurious log files, or displays other irregular behavior when conversations close while the server is under heavy load.

1082306 (2502575)
• For CICS Web Interface servers that use chunking and persistent conversations, and do not send trailers, the response is now properly terminated. This fixes some issues where clients hung when receiving the response from such a server.

1081884 (2545201)

MF Directory Server

• If a user is logged into the Enterprise Server Administration HTML GUI and his account is deleted by an administrator, the next time he attempts an action it could terminate the GUI.

1081439 (2540178)
• If a file called custom_greeting.htmf exists in the current HTMF file directory, the Enterprise Server Administration HTML GUI loads it instead of the default greeting.htmf file. This allows customers to create their own logon "Welcome" HTML page that will not be overwritten if a product update is applied.

1079596 (2519379)
• On Solaris platforms, attempting to access the Historical Statistics Facility for an Enterprise Server instance from the Enterprise Server Administration console causes the MFDS process to terminate.

592029 ( )
• When you used Enterprise Server Administration to create a new security resource entity, the initial ACL string value was displayed as an incorrect value.

592375 ( )
• An incorrect value could have been saved for the "Maximum HSF file size" in the "Historical Statistics" properties of an enterprise server if you edited the setting from the Enterprise Server Administration HTML GUI.

593405 ( )
• If MFDS_DNS_RESOLVE=Y is set in the MFDS process, you could get sign on errors. These was caused by the HTML GUI "Log On" menu option URL using the IP address and not the fully qualified hostname. These issues have now been fixed. As well as resolving the NAT address issues for remote clients, the HTML GUI "Log On" menu option also allows browser clients to connect to the GUI without receiving a certificate warning. This has been fixed in versions of the MFDS 1.14.27 and later.

1084209 (2573815)
• In Enterprise Server Administration, if a server listener has been defined to use SSL, the "Authorise" URL now uses a hostname instead of an IP address if the Communications Process Control Channel

listener has been defined using a hostname address. This avoids potential issues where the IP address might be invalid on a remote client because of NAT configuration.

1083989 (2563805)

MF Server Administrator (GUI)

- When adding a user to an external security manager, you can now include a password expiry time in the Advanced Configuration section of the Add New User wizard in Enterprise Server Administration. The field value is specified using generalized time format (YYYYMMDDHHMMSS.0Z), and can be used by the MLDAP ESM for calculating whether a user's password has expired and requires updating. This value may only be specified using this page when adding a user. You need to use an external directory services configuration tool to edit it.

  1083203 (2562118)

MFA: GUI components

- Clicking a Help button in the Compare and Synchronize Monitor had no effect.

  588082 ( )
- When using the Automatic Synchronize and Compile utility (ASC) with the Compare and Synchronize Monitor, specifying the AUTOLOGON option did not cause the ASC password exit to be used.

  584227 ( )

MFIO

- Random 0C4 abends will not occur in RJSE steps if the log file is not available for some reason.

  1084336 (2575065)
- Logons to MFA sometimes failed because the userid or password contained zeros.

  1082548 (2552652)
- The MFA server now accepts fixed length ASCII records without CRLF formatting.

  1081969 (2544483)

MLDAP API Interface

- CAS APIs such as casout could leak memory in the client (MFCC) layer. This could pose a problem for long-running processes that invoke those APIs, such as some third-party schedulers used with the Micro Focus JES subsystem. These leaks have been corrected, and MFCC memory use is stable (does not continue to grow) across multiple requests.

  1083998 (2559738)

Monitoring and Management

- The HSF page in ESMAC no longer shows an incorrect graph in Firefox when latency is 0.

  1082792 (2551627)

MTO - CICS BMS Screen painter

- You no longer receive an error message when compiling COBOL language BMS files if a PICOUT string in them contains the character "0" (zero).

  1085804 (2591902)

MTO - CICS Emulation

- 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)
- A value of -1 in the parameter to the CURSOR option of a CICS SEND MAP command is now interpreted correctly as meaning "use symbolic cursor positioning".

  1082249 (2545382)
- The Global User Exit XEIIN can now signal that execution of the requested API should be bypassed by returning UERCBYP in the return-code.

  1082573 (2553355)
- An initial CICS transaction, as specified in the SIT, no longer causes screen corruption if it uses DBCS characters.

  1083074 (2560428)
- The value passed in the ITEM field for a CICS READQ TS command is now correctly converted, and no longer causes an ITEMERR condition.

  1082920 (2558374)

MTO - CICS ESMAC

- If external security is configured (MLDAP) and the default ESMAC user is not allowed to login, the region does not startup.

  1082337 (2550800)

MTO - CICS Supplied Transactions

- When installing an updated CICS FCT entry with a change of physical file name, the old file name is no longer used.

  1082653 (2553650)

MTO - CICS Utilities

- When importing sign-on table (SNT) records via the batch utility CASRDTUP, the password field is no longer checked for valid characters: any valid character may be used to match your password policy.

  1083592 (2565838)
- The size of the variable used to parse the commands you enter at the command line has been increased to more than 255 characters.

  1084087 (2572053)

MTO - IMS DB

- When using an IMS BMP under DFSRRC00, the XA connections are now all enabled for the application to use.

  1085566 (2585896)
- On 64-bit platforms, the PCB call from a CICS application that is compiled using the AMODE directive now correctly receives 4-byte linear address model pointers.

  1084819 (2580421)
- When a data capture exit routine is specified in a DBD but not found, the application program which updated the database will ABEND with a U3314 and the database update will be rolled back. When data capture exit routines are defined in the DBD source but not needed at run time, the DBDGEN directive NODCX will cause the EXIT= specification in the DBD source to be ignored.

1084675 (2579600)

- PSBs which contain both LIST=NO PCBs and PCBs that do not specify a PCBNAME no longer result in a PCB misalignment.

1082973 (2558838)

- The root segment in the logical parent database is no longer updated instead of the logical parent segment, in cases where the virtual insert rule is specified for a logical parent segment that is defined at a level below the root and an application inserts a concatenated segment containing IO areas for both logical child and logical parent.

1083054 (2559893)

- An IMS database with a virtual paired bidirectional logical relationship that specifies the physical replace rule on the real logical child now correctly returns an 'RX' status code when attempting to replace the logical child segment using the virtual logical child. Previously the physical replace rule behaved as if virtual was specified.

1083306 (2562778)

- In an IMS MPP, DLI calls that are issued before the GU to the IOPCB now give the correct results.

1083541 (2563797)

- For the batch backout job, if the user specifies the input parameter of CHKPT, a valid checkpoint id or the keyword 'ALL' or 'LAST' must follow, or the job will not run.

1082185 (2549982)

- A new directive (NOPAIR) has been added to the IMS DB Utility (IMSDBU) Pointer Update (PTRU) function. While resolving logical children (LC) segments, the NOPAIR directive will suppress the operation that searches for the paired LC segment. This can be used to optimize efficiency when loading IMS DBs with bidirectional paired logical relationships when the logical children segments are NON-KEYED. This directive should only be used when paired LC segments are loaded on only one side of the relationship.

1082663 (2555682)

- The AIB resource address field AIBRSA1 is no longer incorrectly returned in AMODE format to a NOAMODE application.

1082150 (2548504)

- A basic CHKP call from an IMS transaction now works correctly.

1082072 (2545005)

- AIBTDLI INQY FIND calls now work correctly when BTS tracing is enabled.

1081992 (2548059)

MTO - IMS MFS

- Segment/field exits must be written in COBOL. Micro Focus supplies a sample segment exit routine, called DFSME127, and a sample field exit routine, called DFSME000. All user-written exits must follow the naming convention DFSMEnnn, where nnn is 000 through 127. Both of the sample exits are well documented. Refer to IBM IMS documentation for a description of the linkage parameters. For the segment exit DFSME127, there is an extra field at the end of linkage control block called DFSME-R1-RETURN. This field contains a user-defined error message number when the segment exit issues a return-code of 12 (which causes the message to be canceled). To be invoked, the segment and field exits must be compiled and the compiled code must reside at a location pointed to by the ES_IMS_EXITPATH environment variable. If the exits are not found here, they will searched for at the location pointed to by the COBPATH environment variable. All exits, DFSME000 through DFSME127, if they are to be invoked, must exist at the proper location before the server is started. As the server is started, the names of the exits found are written to the server console log. Use of any segment or field exit is optional. In other words, if an MFS source references an exit and it does not exist, the behavior is as if there were no exit coded in the MFS. If, for some reason, the exit returns an exception condition, a message will be written to the server console log. It is up to the author of the segment exit to ensure that the segment is not modified in a way that causes the segment to be invalid. Doing so may cause a

run-time problem with the server. Currently, there are a few restrictions on using segment and field exits: 1) The sample segment and field exits are supported only for MFS source which uses the option 1 and 2 format. 2) The return code of 16 from the segment exit is not supported. This means that a segment exit returning a value of 16 cannot expect the message to be returned to the input device. 3) An exit should not invoke IMS callable services, including storage services and control block services.

1081373 (2540589)

- When running EBCDIC applications under Micro Focus server, if there are input fill characters coded as hex values in the MFS source, and those values SHOULD NOT be converted to EBCDIC at run time, you need to regenerate the MFS and use the HEXFILL directive. Those hex values will then remain the same at run time and will not be converted to EBCDIC.

1082331 (2550799)

- In dfhcwini.cpy, the default MOD screen sizes in ws-ttype-table have been modified so that they now reflect the default size of 80x24. This change means that casmfs.cbl needs to be modified because it uses the default MOD screen sizes rather than the Alternate MOD screen sizes.

590439 ( )

MTO - IMS Other

- A User 0476 ABEND (invalid PCB address) no longer uses an incorrect error message and reports a system software error.

586690 ( )

- The address of the application parameter (APARM) is now correctly returned to an INQY ENVIRON call from an IMS data capture exit routine.

1084673 (2579598)

- When SSTM is enabled for IMS, an application parameter (APARM) can be specified in the JCL for an IMS MPR and is available to the AIBTDLI INQY ENVIRON call from IMS applications and data capture exit routines. The value of the APARM is taken from the JCL when the first message is processed in the MPR which might not be immediately when the MPR is started. All MPRs share the same JCL file.

1084674 (2579599)

MTO - IMS TM

- A problem with the MFS LTNAME field not matching the I/O PCB LTERM field has been resolved.

1083958 (2569956)

- A problem with running transactions not being properly terminated and rolled back when an IMS MPR process goes down, has been resolved. Also, the ESMAC SEPs page now includes a "Kill" button for active MPRs.

1084862 (2579672)

- The IMS transaction processing limit time setting is now supported.

1077380 (2487424)

- The IO-PCB now contains the correct MOD name upon a transaction-switch.

1084892 (2579872)

- OTMA transactions no longer timeout in error.

1081620 (2502575)

- The /DEQUEUE TRAN command is now available to remove messages from the message queue.

1080760 (2490631)

- The non-discardable messages exit routine (DFSNDMX0) is now supported.

1082587 (2549339)

MTO - IMS Utils

- PSBGEN error message PSBUT870E is no longer issued in error when a logical DBD references multiple physical databases that all use the same segment names.

  1082088 (2538116)
- Some failures from IMS batch backout restore were undetected by the utility control program MFDBUJCL, which resulted in confusing messages in the job SYSOUT. This has now been fixed.

  1081494 (2541221)
- The IMS DB editor no longer fails with a run-time system error 173 on the "mFHTSRtr" file.

  593399 ( )

MTO - JCL ESMAC

- The JES Alias page now checks the OPERCMDS class to ensure that the user has "Update" or greater authority against the entity JESALIAS. If the user has only "Read" authority, the "Delete" and "Update" buttons are disabled.

  1081333 (2524732)
- With Enterprise Server external security using the MLDAP ESM Module, when checking access to a dataset with a name like "A.B", a rule named "A.B" will have priority over a rule named "A.B.**". This lets administrators give users higher permissions over more-qualified dataset resources, so for example they can give users the ability to add and delete "A.B.C", while only being able to read "A.B".

  1082083 (2536980)

MTO - JCL MVS

- When MFCODESET was set to a codeset where characters do not match the Latin 1 set, an error, 'JCLCM0218S System error "MFJXE00--L"', in MFLEINIT was reported in the JES log. The step would then terminate with COND CODE RTS0173. This has been fixed and the LE initialization under different codesets no longer results in this error.

  1082286 (2551104)
- When a keyword value is a JCL keyword, it is now correctly interpreted.

  1081501 (2542158)
- The system now allows deletion of a PDS member (not dataset) with update authority.

  1084539 (2576851)
- The limit on the number of conditions in a JCL IF test has been increased from 15 to 30.

  1081161 (2538377)
- The JCL STEPLIB processing has been changed to ensure that a STEPLIB is always cleared at step end so it is never active for a subsequent step.

  1083422 (2534013)

MTO - JCL System Catalog

- A problem following an authorization error on a pc file name that caused JCL TO HANG has been fixed.

  1085702 (2590105)

MTO - JCL Utils

- The use of parameters on the FD card of IEBDG has been extended to be more compatible with mainframe usage.

  1085138 (2582515)

- Previously, SVC99 in the catalog did not set the expiration. It now supports retention period TU (Text Unit).

  1084364 (2576036)
- When you delete a dynamic PDS, this does not automatically delete the underlying PC files. To delete the underlying PC files, set the MF_DEL_DYNPDS environment variable to Y. The default behavior is unchanged.

  1083656 (2567645)
- In IEBGENER, if the SYSUT1 dataset is a DUMMY dataset it will now be processed as an empty dataset.

  1083514 (2565707)

MTO - JCL Utils - IDCAMS

- If an unbalanced quote is detected in an IDCAMS literal, an error message will be issued, detailing the command and indicating the problem, and the command will be bypassed.

  1081736 (2544840)
- Symbolic parameters in JCL Procedures are now correctly expanded.

  1080809 (2532904)
- If a GDG Base is returned as part of the LISTCAT command, then the generations will also be displayed. If a VSAM Cluster is returned then the elements of the cluster, such as DATA, INDEX and AIX, will also be displayed.

  1079743 (2521461)

MTO - JCL VSE

- There is no longer a problem identifying comments if they immediately follow the terminator (/*) for an instream data file.

  1084081 (2567761)

MVS REXX Emulation

- CALLed EXECs now correctly inherit the trace setting of the CALLing EXEC only following the invocation of the TS command.

  1081539 (2542202)
- The DATE() function now formats the year correctly when converting between a Julian and a standard date format.

  1083437 (2564240)

NCG

- A bug generating statements of the form: call function upper-case(var-a) has been fixed.

  1084500 (2577968)

Open PL/I CICS Preprocessor

- A problem with mfplx erroneously passing the compiler options -opt and -noopt to mfexecpp has been fixed.

  1085080 (2582970)
- The PL/I built-in functions LOW and HIGH are now handled correctly when used in a CICS command.

  589782 ( )

- A concatenated expression within a CICS parameter no longer fails with the mesage: The argument of ADDR must be a reference to a variable.

  1081680 (2544319)

Open PL/I Compiler

- Programs calling ATAN with literal constants now link on Windows.

  1082358 (2551777)
- BIT(n) items passed as parameters are now handled correctly.

  1083780 (2568931)
- A problem when using a named constant with a VALUE using the DIM built-in has been fixed.

  1083576 (2566024)
- A problem passing fixed bin(15) results from built-in functions to subroutines with ANY parameters when using the -bigendian compile switch has been fixed.

  1083470 (2561007)
- If -setstack was specified on a PL/I CICS project, it was not passed by mfplx correctly. It is now correctly passed to only the mfpli step.

  1083661 (2549386)
- A problem when declaring an automatic char varying item with a length specified using the SIZE or STG built-in function has been fixed. For example: dcl x char(4); dcl str char var (stg(x));

  1083710 (2568134)
- A problem passing a char(*) parameter to an external subroutine declared with options(nodescriptor) has been fixed.

  1081856 (2546480)
- A problem with the compiler not recognizing the UNAL keyword in the DEFAULT RANGE(*) UNAL statement has been fixed.

  589371 ( )
- An optimizer change has been made such that the Warning message "MFPLI00248I : A possible conditional optimization was missed" should only be seen very infrequently.

  1083082 (2553574)
- The Open PL/I compiler crashed with a "page not in cache" error.

  589891 ( )
- You no longer receive erroneous diagnostic messages or Compiler errors when compiling PL/I programs that miss or include a mismatched END; statement.

  1085247 (2585031)
- When you declared a file as RECORD OUTPUT and opened it with the TITLE option pointing to a RECFM=VB file after opening it with the TITLE option and pointing a RECFM=FB file, an "UNDEFINED FILE" condition was incorrectly raised.

  1085117 (2583549)
- Using the Open PL/I Compiler -debug option no longer causes the compile to fail with "Internal consistency" error.

  1085315 (2586006)
- The VALUE clause in named constants has been enhanced to support the POINTERVALUE built-in.

  592721 ( )
- The Open PL/I Compiler now diagnoses CLOSE FILE(*) as not yet supported.

  592693 ( )

- The Open PL/I Compiler now supports the NOINIT attribute.

  592724 ( )
- The Open PL/I Compiler now supports the PARAMETER attribute.

  592725 ( )
- The Open PL/I compiler now supports hexadecimal (XN) fixed binary constants.

  592718 ( )
- Punctuating arithmetic, bit, and hexadecimal constants is now supported.

  592719 ( )
- The TINY and HUGE Open PL/I built-ins are now supported.

  1085870 (2592830)
- When the Regional Language setting for the decmial point was a ccmma (for example 3,141592), a possible floating point conversion error from ASCII to float binary occurred.

  1085970 (2593986)
- The string concatenation of the HIGH/LOW built-ins with a repeat factor returned incorrect results.

  1086379 (2597746)
- Using INITIAL clauses that contain concatenation of string constants were generating compiler errors.

  1086434 (2598242)
- An incorrect padding of trailing blanks occurred for a string returned by the expression HEX(SUBSTR(...)).

  1085658 (2590174)
- A problem with an unresolved external reference when linking with an external condition has been fixed.

  1079634 (2520275)
- Previously, when a Compiler error message contained a variable name or variable description that consisted of 79 bytes or more of contiguous data without a space, a protection violation occurred when trying to compile.

  1084456 (2577444)
- A compatibility issue requiring an ENTRY keyword on an entry declaration having an empty parameter list and a RETURNS attribute, and/or the use of parenthesis () at the call-point, has been fixed.

  591219 ( )
- A problem with specifying REORDER on an ON ERROR block has been fixed.

  1084879 (2581350)
- A problem when PIC variables of the same size are used as DO loop control variables has been fixed.

  1078110 (2500306)
- Structure expressions are supported with the UPPERCASE, LOWERCASE, and REVERSE built-ins. Restrictions: only "flat" structures are allowed. Arrays, arrays of structures, and structure member arrays are not yet supported.

  1084538 (2578374)
- A compound IF statement involving PIC and Fixed Binary Big-Endian fields not being evaluated correctly under certain circumstances has been resolved.

  1084155 (2572873)
- Performing fixed bin big-endian array assignments failed when conversion was required.

  1084139 (2571825)

Open PL/I Debugger

- Variables declared with DEFINED POS(x) were not displaying correctly in Codewatch. This issue has been fixed but, to avoid this problem when debugging with Codewatch, you need recompile any source code that includes such variables with -deb.

  1084063 (2571824)

- When using the _ARGC/_ARGV mechanism to retrieve command line parameters, the number of parameters and position are now consistent, whether invoked by cwcmd, cwgui or as an executable.

  1084219 (2574105)

- If a C#/C++ combo .EXE compiled with "Debug" using CodeWatch attempted to drive an Open PL/I DLL, then the debugger attachment would fail. Having existing Program database files available from a prior compile would cause this issue.

  1086177 (2587020)

- A problem evaualting CONTROLLED variables in the Open PL/I Debugger has been fixed.

  1085303 (2578290)

- Using a debugger on Windows to debug an Open PL/I program that contains EXEC SQL and which was built using the -BIGENDIAN compile directive, no longer results in a trap while trying to clean up temporary storage as part of the code generated for an EXEC SQL statement.

  1083481 (2561007)

Open PL/I Macro Preprocessor

- If hex FF is found within a literal constant which spans multiple lines, the macro preprocessor no longer erroneously reports that EOF had been reached before it should have been.

  589505 ( )

- The macro preprocessor now supports %DO ... WHILE expressions.

  1082119 (2549068)

- When preprocessing source which contains /*/ as part of a comment "start", the preprocessor no longer incorrectly determines that the comment is concluded with the trailing '/'.

  590202 ( )

- 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 ( )

- The Open PL/I Macro Preprocessor had a limit for the length of macro variable names of 32. This has been expanded to match the compiler's limit of 100.

  1085365 (2586632)

- An unterminated quote caused the Open PL/I Macro Preprocessor to loop.

  1085759 (2591348)

- 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 handles multiple closes of macros.

  1084417 (2577063)

- 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)

- Previously, an attempt to compile PL/I source which contained macro language and the macro language contained an assignment statement where one of the literal constants was larger than 4096 bytes could result in a protection violation in mfpp.exe. This has been enhanced so that you can now use literal constants up to 16392 bytes. If you exceed this limitation, an appropriate message is displayed.

1084405 (2576694)

Open PL/I RTS

- If more than 65,535 Open/Close cycles occurred in a long running standalone (.exe) PL/I application, then an RTS 13 error occured.

1085752 (2591161)

- For all I/O, where there was absolute minimal information supplied about a file, Open PL/I RTS assumed the following for non-direct, keyed, or VSAM files. o LSEQ o RECSIZE(258) o fixed length The RECSIZE(258) in conjunction with the fixed length caused the erroneous "ON RECORD()" to be triggered. Open PL/I RTS has been enhanced so the ENV() attribute of V or F creates Micro Focus variable or fixed length files. Absence of V or F causes LSEQ format output, which is the same as the current default.

1085491 (2588122)

- When using PLISRTB,PLISRTC and PLISRTD, an erroneous search for a supporting executable was occuring for each IO operation.

1086317 (2592201)

- If using an automatic variable as the record buffer for a CONSECUTIVE file, a stack corruption no longer occurs upon the explicit close of the file.

591576 ( )

- If an alternate index from an Open PL/I program is defined to allow duplicate keys, a read where two consecutive records have the same key of reference is now handled correctly.

588713 ( )

- Previously, when attempting RECORD IO against a file which also had an ENVIRONMENT option of CTLASA specified, the first byte displayed was random uninitialized data and the first byte of user data was lost. This no longer happens.

1082308 (2551165)

- The new PLIDUMP functionality on Server Enterprise Edition 6.0 now correctly contains the "called from" information in the PLIDUMP.

1081893 (2545936)

- Previously the "special" behavior related to a "SKIP" on the first line of the first page was causing the output in the provided example to incorrectly NOP the SKIP statement embedded in the format portion of the PUT EDIT statement. This no longer happens.

1082320 (2551392)

Open PL/I SQL Preprocessor

- In Enterprise Developer 2.1, and Studio Enterprise Edition releases from SP2 WS2 onwards, EXEC PP should be used.

1082329 (2545557)

RTS

- 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)

- IF NUMERIC validation of COMP-3 slack nibbles (when there is an even number of digits in the picture clause) is now done in a way that is compatible with that on the mainframe.

    1083801 (2569340)
- An error in UNSTRING, where a zero length field is moved to a numeric display item, has been fixed.

    1085663 (2589149)
- When building a COBOL .dll that is to run in an Enterprise Server container on Windows, you must now build the .dll so it does not include system programs or it might become locked and cannot then be updated.

    1076079 (2475349)
- When using a mainframe dialect, any invalid character in the decimal point position is now ignored when de-editing a numeric-edited item.

    1081507 (2542326)
- When running a transaction under Enterprise Server, the %f template string in the core_filename tunable now works correctly.

    1079249 (2504692)
- Any shared objects loaded during an Enterprise Server transaction are unloaded when the transaction finishes. Shared objects linked with a non-COBOL shared library are now correctly unloaded too.

    1081549 (2539607)
- Use of PC_PRINTER_DRAW_RECTANGLE, PC_PRINTER_GET_BMP_INFO, PC_PRINTER_LINE_FROM_TO, PC_PRINTER_SET_BACKGROUND_MIX_MODE, PC_PRINTER_SET_PEN or PC_PRINTER_SET_POSITION no longer give an unresolved symbol error when linking as a 32-bit application.

    1072571 (2418196)
- Compacting memory with CBL_MEM_VALIDATE when using .gnt code could potentially result in an RTS 252 error of type "1/4". This has now been resolved.

    1082487 (2553152)
- Using PC_PRINTER_INFO with a printer that is loaded with non-standard paper size no longer causes a run-time system error 114.

    1082289 (2550724)
- The call MVS_REGISTER_DDNAME is an MFE-only call used by the IDE. FileHandler no longer calls this routine.

    1083028 (2559292)
- The RUN program now accepts command line arguments of up to 1023 characters long.

    1083215 (2561567)

SQL: Cobsql

- The Cobsql preprocessor was updated to no longer misinterpret WORKING-STORAGE items whose definitions were spread across multiple source lines.

    1080078 (2507684)
- The Cobsql preprocessor has been updated to correctly process variables defined as USAGE COMP after an EXEC SQL INCLUDE SQLCA when the CP preprocessor directive NOSQL is specified.

    1084463 (2577593)
- The Cobsql preprocessor has been updated to correctly process Pro*COBOL-generated data items when the first WORKING-STORAGE variable in user code contains a VALUE clause with the literal value on a separate source line.

    1084753 (2579264)

SQL: DB2 ECM

• The HCO DCLGEN tool no longer incorrectly generates copybooks from multiple tables if the schema names are similar.

  1084435 (2577256)

• The Host Compatibility Option was updated to honor database connection criteria specified on the command line.

  1081585 (2537570)

• The DB2 pre-compiler now picks up the copybook path properly when running in background syntax checking mode.

  1083064 (2560273)

• The DB2 pre-compiler now generates GOBACK instead of STOP RUN at the end of program source, so that poorly coded programs do not fail when running under IMS or other transaction monitors.

  1083235 (2559616)

• The DB2 ECM has been updated to resolve run-time errors returned when compiling against mainframe databases in 64-bit mode.

  1082441 (2549058)

• All HCO tools including DCLGEN have been modified to support table names up to the maximum that DB2 LUW V9.7 supports (128 characters).

  1081767 (2545044)

SQL: HCO for SQL Server

• The HCO for SQL Server BIND tool results are no longer limited to the OpenESQL Maximum Row Count setting.

  1085321 (2586047)

SQL: OpenESQL

• OpenESQL has been updated to support 64-bit operation for INSERT and FETCH statements.

  1079765 (2499575)

• The OpenESQL run-time has been updated to resolve issues with multiple service invocations under Enterprise Server.

  1082709 (2556475)

Visual Studio IDE

• If you specify copybook files without an extension, you no longer get an infinite recursion of including copybooks. A message with file and copybook name is shown in the Output Window and logged if the Logger is activated.

  1081461 (2541871)

• You will no longer receive exceptions during the background parse due to changed lines because of pre-processors or replace statements. However, the IDE does not support pre-processors and the use of them will destabilize the IDE if the background parse is enabled. We advise that you turn off the background parse if your programs use pre-processors.

  1082976 (2558426)

• UNC names are now handled correctly. We can now cope with a read-only directory.

  1083625 (2563388)

Web Service Client

- A user exit is now available to set custom HTTP headers in a SOAP response message.

  1084118 (2570467)

XDB INZUTILB Utility

- Incorrect error messages are no longer referenced by XHPU.

  1084489 (2577109)
- Run-time system error 114 ("Attempt to access item beyond bounds of memory") occurred in the XHPU emulation of INZUTILB if SYSPRINT was missing.

  1085016 (2582502)
- XHPU incorrectly marked an unload file as a blocked variable when it only included data from a single table.

  1085655 (2588729)
- Message INZC003E has been added to an XDB message file.

  1083308 (2563505)
- XHPU now returns the proper return code for the job step.

  1083307 (2563503)

XDB JDBC Driver

- The server-side JDBC support has been enhanced to use indexed-message retrieval.

  1085674 (2589905)

XDB Server

- A mutex deadly embrace no longer results in a server hang.

  1085199 (2583889)
- An index was sometimes selected for an entire query when all the fields were not in the index.

  1083970 (2561777)
- A problem has been fixed where Optimizer had internal flags on in error, causing no records to be selected on a count(*).

  1083933 (2570185)
- Views containing a subquery did not have the dependency metadata updated with the tables contained in the subquery.

  1084290 (2575223)
- Adding a primary key to a table reset the clustering indicator of the index metadata.

  1083589 (2566249)
- Views created with quoted field names no longer raise "column not found" errors.

  1082639 (2552754)
- XA exception handling has been added to XDB utilities which open their own XA connections.

  1083419 (2563973)
- View materialization no longer happens during precompile validation of a query containing unions of views.

  1083671 (2557923)
- VIEW processing no longer leads to memory overrun.

  1083858 (2569409)

- Queries against views containing a GROUP BY clause no longer cause a thread access violation during symbol lookup.

  1083707 (2565781)
- An incorrect primary key index was created for a table that was in an implicitly-created tablespace.

  1081145 (2538331)

XDB SQLWizard

- The SQL statements that used to exist in DBCREATE.DAT have been integrated into the SQL Wizard.

  1082576 (2553276)

XDB: Problems not classed above

- INZUTILB no longer causes RTS 114 error searching for an incorrect message.

  1082443 (2552991)
- INZUTILB unloading to multiple DDs no longer leaves an unload file open.

  1082489 (2553203)
- DSNUTILB/INZUTILB have been modified to successfully enable XA connectivity to a named subsystem.

  1082423 (2552039)

XML syntax support runtime

- The RTS 114 error caused by the exception at the beginning of an XML document is now fixed.

  1083010 (2558865)

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.

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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