IBM Enterprise PL/I for z/OS V3.7 delivers debugging improvements, performance improvements, and usability enhancements.

Internal Letter Section

Table of Contents

Title

IBM Enterprise PL/I for z/OS V3.7 delivers debugging improvements, performance improvements, and usability enhancements.

Overview

With IBM Enterprise PL/I for z/OS V3.7, you can leverage more than 30 years of IBM experience in application development to facilitate your new On Demand Business endeavors, helping you to integrate PL/I and Web-based business processes in Web services, XML, Java, and PL/I applications. This compiler's interoperability lets you capitalize on existing IT investment while smoothly incorporating new, Web-based applications as part of your organizations infrastructure.

Enterprise PL/I is a leading-edge, z/OS-based compiler that helps you create and maintain mission-critical, line-of-business PL/I applications you want to execute on your z/OS systems. It gives you access to DB2, CICS, and IBM IMS systems, and other data and transaction systems.

New in V3.7

- Debugging improvements
- Performance improvements

- Usability enhancements
- Improvements to help application programmers diagnose errors
- Serviceability improvements

Planned availability date:

October 26, 2007

Program number

```
Program                                   Program
Name                                      Number
---------------------------------------   -----------
IBM Enterprise PL/I for z/OS V3.7         5655-H31
```

Marketing information

Marketing channels

Program Number /Feature Code Fulfillment - Marketing Channels

- IBM sales specialist
- IBM Call Centers
- IBM Business Partner S/390 and System z Software Product Agent

Marketing action required

Non-cryptographic products:

The U.S. export non-cryptographic classification determination has been assigned as specified in the Corporate IPD Guide and as required by Corporate Instruction, Governmental Programs 102B (Legal 112E).

Marketing support

Industry support

Demonstrations: There will be no demonstrations for this product.

Promotional material:

Marketing support materials can be found on the worldwide Web by doing the following:

- Browse the IBM Xtreme Leverage home page at: http://w3.ibm.com/software/xl/portal
- Search for "PL/I"
- Select marketing support materials that will be available from the search results

IBM Global Financing

IBM Global Financing offers competitive financing to credit-qualified customers and IBM Business Partners to assist them in acquiring IT solutions. Our offerings include financing for IT acquisition, including hardware, software, and services, from both IBM and other manufacturers or vendors, as well as commercial financing (revolving lines of credit, term loans, acquisition facilities, and inventory financing credit lines) for Business Partners. Offerings (for all customer segments: small, medium, and large enterprise), rates, terms, and availability can vary by country. Contact your local IBM Global Financing organization or visit the Web site

http://www.ibm.com/financing

IBM Global Financing offerings are provided through IBM Credit LLC in the United States, and other IBM subsidiaries and divisions worldwide to qualified commercial and government customers. Rates are based on a customer's credit

rating, financing terms, offering type, equipment type, and options, and may vary by country. Other restrictions may apply. Rates and offerings are subject to change, extension, or withdrawal without notice. For more financing information, visit

   www.ibm.com/financing

Offering information

Proposal insert material is not available; however, product descriptive information is available through the Offering Information Web site at

   http://w3.ibm.com/sales/ssi

Configurator information

The following configurator aids will support this announcement:

```
Configurator aid    Date available
```

CFSW 10/23/07
ELINK and EHONE support is available to customers eligible to use VM IBMLink.
When you use the HONE configurator aid, orders will be configured at the current release level. At availability, orders will be configured at the new release level.

Ordering information

Refer to SWORDERINFO and CFSW on EHONE.

License use management

```
Is this product License Use Management Enabled?   N
IBM License Use Management Tool          N
Measured Usage Tool (S/390 and System z) N
SLM/400 (iSeries)                        N
Other (Specify) _____

Is a FEATURE within the product License Use Management Enabled? N
Please identify the FEATURE
If Yes, select the License Use Manager
IBM License Use Management Tool
Measured Usage Tool (S/390 and System z)
SLM/400 (iSeries)
Other (Specify) _____

Is the Implementation of License Use Management Customer Managed
Use?  N

Is the Product Key Protected (to install/access the product)?  N
If yes, select the applicable Access Control Method
SDCS   N
IBM License Use Management Tool (if Use Based Priced)  N
Other (Specify) _____

Is IBM Distributing the Key?   N
```

Vendor logo product code

I

Programming RPQs

Requests for PRPQs will not be accepted.

Terms and conditions

Business partners terms & conditions

Program number/feature code fulfillment - Business Partner Exhibits
The products are added to the Software Product Lists of the following Exhibits:

- S/390 and zSeries IAP MLC Software Product (Complementary) Exhibit(s)

Program number/feature code fulfillment - Business Partner Categories
The products are added to the following categories/groups:

- Application development tools and languages
    - MVS and OS/390 platforms

Additional Information is available as follows:

For more information refer to Marketing announcement "Business Partner Program - S/390 and zSeries IAP MLC Software", PLET ZA97-0110.

IBM Enterprise PL/I for z/OS V3.7 delivers debugging improvements, performance improvements, and usability enhancements.

Customer Letter Section

Table of Contents

See final section for details of availability and limitations, if applicable.

Title

IBM Enterprise PL/I for z/OS V3.7 delivers debugging improvements, performance improvements, and usability enhancements.

Overview

With IBM Enterprise PL/I for z/OS V3.7, you can leverage more than 30 years of IBM experience in application development to facilitate your new On Demand Business endeavors, helping you to integrate PL/I and Web-based business processes in Web services, XML, Java, and PL/I applications. This compiler's interoperability lets you capitalize on existing IT investment while smoothly incorporating new, Web-based applications as part of your organizations infrastructure.

Enterprise PL/I is a leading-edge, z/OS-based compiler that helps you create and maintain mission-critical, line-of-business PL/I applications you want to execute on your z/OS systems. It gives you access to DB2, CICS, and IBM IMS systems, and other data and transaction systems.

New in V3.7

- Debugging improvements
- Performance improvements
- Usability enhancements
- Improvements to help application programmers diagnose errors
- Serviceability improvements

Key prerequisites

z/OS V1.7 (5694-A01), or later

Depending on the function used, certain levels of other programs may be required. Refer to the **Software requirements** section for details.

At a glance

Planned availability date:
October 26, 2007

Description

V3.7 compiler enhancements

Debugging improvement -- The TEST option has been enhanced so that users can choose to view the source in the listing and in the Debug Tool source window as that source would appear after a user-specified preprocessor had been run (or after all the preprocessors had been run).

Performance improvements

- The BASR instruction can be used instead of the BALR instruction.
- UNPKU is used to convert some PICTURE to WIDECHAR (rather than making a library call).
- The conversions of FIXED DEC with large precision to FLOAT are inlined and speeded up by the use of FIXED BIN(63) as an intermediary.
- The CHAR built-in when applied to CHAR expressions are now always be inlined
- The code generated for conversions of FIXED BIN(p,q) to unscaled FIXED DEC is significantly improved

Usability enhancements

- IEEE Decimal Floating Point is supported (requires z/OS 1.9 or later, and ARCH(7) hardware)
- The new MEMCONVERT built-in function allows you to convert arbitrary lengths of data between arbitrary code pages

- The new ONOFFSET built-in function allows you to have easy access to another piece of information formerly available only in the runtime error message or dump, namely the offset in the procedure at which a condition was raised.
- The new STACKADDR built-in function returns the address of the current dynamic save area (register 13 on z/OS) and will make it easier for users to write their own diagnostic code.
- The length of the mnemonic field in the assembler listing is increased to allow for better support of the new z/OS instructions that have long mnemonics.
- More of the right margin can be used in the attributes, cross-reference and message listings.
- The default for the CEESTART option is changed to CEESTART(FIRST).
- The CODEPAGE option now accepts 1026 (the Turkish code page) and 1155 (the 1026 code page plus the Euro symbol).
- The new MAXNEST option allows you to flag excessive nesting of BEGIN, DO, IF and PROC statements.
- Under the new (and non-default) suboption NOELSEIF of the RULES option, the compiler will flag any ELSE statement that is immediately followed by an IF statement and suggest that it be rewritten as a SELECT statement.
- Under the new (and non-default) suboption NOLAXSTG of the RULES option, the compiler will flag declare where a variable A is declared as BASED on ADDR(B) and STG(A) > STG(B) not only (as the compiler did before) when B is AUTOMATIC, BASED or STATIC with constant extents but now also when B is a parameter declared with constant extents.
- The new QUOTE option allows you to specify alternate code points for the quote (") symbol since this symbol is not code-page invariant.
- The new XML compiler option can be used to specify that the tags in the output of the XMLCHAR built-in function be either in all upper case or in the case in which they were declared.
- For compilations that produce no messages, the compiler now includes a line saying "no compiler messages" where the compiler messages would have been listed.
- The MACRO preprocessor supports a new suboption that will allow you to specify whether it should process only %INCLUDE statements or whether it should process all macro statements.
- The integrated SQL preprocessor will now generate DB2 precompiler style declares for all *LOB_FILE, *LOCATOR, ROWID, BINARY and VARBINARY SQL types, in addition to the BLOB, CLOB and DBCLOB SQL types already supported, when the LOB (DB2) SQL preprocessor option is selected.

Improvements to help application programmers diagnose errors

- The compiler now flags the use of AUTO (and STATIC) variables as tables in TRANSLATE and VERIFY (since this can lead to poor performance).
- The compiler now flags the use of a function to set the initial value in a DO loop (since this can lead to unexpected results).
- The compiler now scans for duplicate WHEN values in SELECT statements even if ' ' is specified as a WHEN value.
- The compiler now flags any %DECLARE that does specify any attributes, thus leading to easier detection such as the extraneous comma in the statement "%DCL A, CHAR, B FIXED;"
- The compiler now flags any SUBSTR reference where the third argument is zero since while technically valid, this is almost certainly a coding error.
- The compiler now optionally flags storage overlay problems where the base variable is a parameter.
- The compiler now flags the specification of a scale factor in a FLOAT declaration since this is invalid and may point to a typo in the source where FLOAT was typed but FIXED was meant.
- The compiler now flags any bit prefix operand that does not have the BIT attribute (as it already did for bit infix operands).

Serviceability improvements

- The compiler now flags a CLOSE statement for a file if that statement occurs in an ENDFILE ON-block for that file (thus detecting a user error that is usually resolved only after a PMR has been opened).
- The compiler now flags ON ERROR blocks not starting with ON ERROR SYSTEM; (thus making it less likely users will have ON ERROR blocks that go into "infinite" loops).

Full Function vs Alternate Function offerings

With V3.7, the mainframe interactive debug tool in Debug Tool for z/OS V8.1 is offered with the Enterprise PL/I compiler in the Full Function offering. This debug tool is a common facility that supports:

- Enterprise COBOL for z/OS
- Enterprise PL/I for z/OS
- COBOL for OS/390 & VM
- COBOL for MVS & VM
- VisualAge PL/I for OS/390
- PL/I for MVS & VM
- z/OS C/C++ optional feature
- OS/390 C/C++ optional feature

Only one Full Function offering is required for debugging applications written using any of these programming products. An Alternate Function offering is available if you prefer to receive the Enterprise PL/I for z/OS compiler but not the debug tool.

Debug Tool for z/OS V8.1 is also offered as a separate product. For more information about the function offered in the debug tool, refer to Software Announcement ZP070371 dated September 18, 2007.

Program number

```
Program                               Program
Name                                  Number
--------------------------------      ------------
IBM Enterprise PL/I for z/OS V3.7     5655-H31
```

Availability of national languages

```
                     Program   Availability
  Description        Number    Date          Language
-------------------- --------  -----------   --------
IBM Enterprise PL/I  5655-H31   10/26/2007   Japanese
for z/OS V3.7
```

Hardware and software support services

SmoothStart/installation services

IBM SmoothStart and Installation Services are not provided.

Technical information

Specified operating environment

Hardware requirements

Enterprise PL/I for z/OS V3.7 will run only on the following (and follow-on) hardware models:

- 9672-xx6 (G5)
- 9672-xx7 (G6)

Software requirements

Enterprise PL/I for z/OS V3 runs under the control of, or in conjunction with, the currently supported releases of the following programs and their subsequent releases or their equivalents. For more information on programs listed below that require program temporary fixes (PTFs), refer to the *Program Directory* and the preventive service planning (PSP) bucket.

z/OS V1.7 (5694-A01), or later is a required licensed program.

Optional licensed programs

- CICS Transaction Server for OS/390 V1 (5655-147)
- CICS Transaction Server for z/OS V2 (5697-E93)
- CICS Transaction Server for z/OS V3 (5655-M15)
- COBOL for MVS & VM V1.2 (5688-197)
- COBOL for OS/390 & VM V2 (5648-A25)
- Enterprise COBOL for z/OS and OS/390 V3 (5655-G53)
- DB2 UDB for z/OS and OS/390 V7 (5675-DB2)
- DB2 UDB for z/OS V8 (5625-DB2)
- DB2 UDB for z/OS V9 (5635-DB2)
- Debug Tool for z/OS V5.1 (5655-M18)
- Debug Tool Utilities and Advanced Functions for z/OS V5.1 (5655-M19)
- Debug Tool for z/OS V6.1 (5655-P14)
- Debug Tool Utilities and Advanced Functions for z/OS V6.1 (5655-P15)
- Debug Tool for z/OS V7.1 (5655-R44)
- Debug Tool Utilities and Advanced Functions for z/OS V7.1 (5655-R45)
- Debug Tool for z/OS V8.1 (5655-S17)
- Debug Tool Utilities and Advanced Functions for z/OS V8.1 (5655-S16)
- DFSORT element of z/OS (5694-A01) or OS/390 (5647-A01)
- High Level Assembler/MVS and VM and VSE (5696-234)
- IMS V7 (5655-B01)
- IMS V8 (5655-C56)
- IMS V9 (5655-J38)
- IMS V10 (5635-A01)
- OS PL/I V2.3 (5668-909, 5668-910, 5668-911)
- PL/I for MVS & VM V1.1 (5688-235)
- VS FORTRAN V2 (5668-806, 5688-087)

Planning information

Packaging

The Enterprise PL/I for z/OS V3 package includes:

- Basic machine-readable material on the customer-selected distribution medium
- Program Directory (GI10-8426)
- Licensed Program Specifications (GC27-1455)

Security, auditability and control

The announced program uses the security and auditability features of the host operating system software. The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Ordering information

Ordering z/OS through the Internet

ShopzSeries provides an easy way to plan and order your z/OS ServerPac or CBPDO. It will analyze your current

installation, determine the correct product migration, and present your new configuration based on z/OS. Additional products can also be added to your order (including determination of whether all product requisites are satisfied). ShopzSeries is available in the U.S., Canada, and several countries in Europe. In countries where ShopzSeries is not available yet, contact your IBM representative (or IBM Business Partner) to handle your order via the traditional IBM ordering process. For more details and availability, visit the ShopzSeries Web site at

http://www14.software.ibm.com/webapp/ShopzSeries/ShopzSeries.jsp

Current licensees

Current licensees of Enterprise PL/I for z/OS V3
will receive instructions on how to order this update.

New licensees

Note to European PM: Please ensure the reference is an Europe SW Letter. This warning message will be deleted at PLET generation time.

Orders for new licenses can be placed now.
Customers whose orders ship before the planned availability will receive IBM Enterprise PL/I for z/OS V3.6.
Customers whose orders ship after the planned availability date will receive IBM Enterprise PL/I for z/OS V3.7.
New users of IBM Enterprise PL/I for z/OS V3 should specify Type: 5655 Model: H31

For ordering information on IBM Enterprise PL/I for z/OS V3, refer to Programming Announcement letter ZP01-0451 dated November 27, 2001.

Publications

A *Program Directory* (GI10-8426) and *Licensed Program Specifications* (GC27-1455) are supplied automatically with the basic machine-readable material. No other hardcopy publications are shipped with the product.
Displayable Softcopy Publications: All IBM Enterprise PL/I for z/OS V3 publications are available free of charge in displayable softcopy format (BookManager, PDF) from the IBM PL/I Web site at:

http://www.ibm.com/software/awdtools/pli/plizos/

Subsequent updates (technical newsletters or revisions between releases) to the publications shipped with the product will be distributed to the user of record for as long as a license for this software remains in effect. A separate publication order or subscription is not needed.

Customized offerings

Product deliverables are shipped only via Customized Offerings (for example, CBPDO, ServerPac, SystemPac). CBPDO and ServerPac are offered for Internet delivery, where ShopzSeries product ordering is available. Internet delivery of ServerPac may help improve automation and software delivery time. For more details on Internet delivery, refer to the ShopzSeries help information at

http://www.software.ibm.com/ShopzSeries

Media type for this software product is chosen during the customized offerings ordering process. Based on your customer environment, it is recommended that the highest possible density tape media is selected. Currently offered media types are:

- CBPDOs - 3480, 3480 Compressed, 3490E, 3590, 3592*
- ServerPacs - 3480, 3480 Compressed, 3490E, 3590, 3592*

- SystemPacs - 3480, 3480 Compressed, 3490E, 3590, 3592*

*3592 is highest density media. Selecting 3592 will ship the fewest number of media.

Once a product becomes generally available, it will be included in the next ServerPac and SystemPac monthly update. Production of software product orders will begin on the planned general availability date.

- CBPDO shipments will begin one week after general availability.
- ServerPac shipments will begin two weeks after inclusion in ServerPac.
- SystemPac shipments will begin four weeks after inclusion in SystemPac due to additional customization,and data input verification.

Integrated Technology Services (IBM Global Services)

Contact your IBM representative for the list of selected services available in your country, either as standard or customized offerings for the efficient installation, implementation, and integration of this product.

Charges, terms & conditions

Terms and conditions

The terms for Enterprise PL/I for z/OS V3 as previously announced in Software Announcement Programming Announcement letter ZP01-0451 dated November 27, 2001,
licensed under the
are unaffected by this announcement.

Prices

For all local pricing information, contact your IBM representative.

IBM Global Financing

IBM Global Financing offers competitive financing to credit-qualified customers to assist them in acquiring IT solutions. Offerings include financing for IT acquisition, including hardware, software, and services, from both IBM and other manufacturers or vendors. Offerings (for all customer segments: small, medium, and large enterprise), rates, terms, and availability can vary by country. Contact your local IBM Global Financing organization or visit

   http://www.ibm.com/financing

IBM Global Financing offerings are provided through IBM Credit LLC in the United States, and other IBM subsidiaries and divisions worldwide to qualified commercial and government customers. Rates are based on a customer's credit rating, financing terms, offering type, equipment type, and options, and may vary by country. Other restrictions may apply. Rates and offerings are subject to change, extension, or withdrawal without notice. For more financing information, visit

   www.ibm.com/financing

Announcement countries

All European, Middle Eastern and African Countries.
The data in this letter is subject to the disclaimer in Letter ZS90-0112, which is available from the same IBM

announcement letters database.

This announcement is provided for your information only. For additional information, please contact your IBM Representative or IBM Business Partner as appropriate.