



IBM Enterprise PL/I for z/OS V3.3 integrates PL/I and Web-oriented business processes

Overview

Enterprise PL/I V3.3 enables developers to leverage more than 30 years' worth of applications in new endeavors. This compiler gives you the needed PL/I function to begin to integrate both PL/I and Web-oriented business processes.

New in this release:

- Ability to generate XML for PL/I structures
- Improved application performance
- Compatibility improvements with prior PL/I compilers to ease migration
- Improved debug support
- Other usability enhancements

Key prerequisites

- z/OS® V1.2 (5694-A01), or later

Note: Applications compiled with Enterprise PL/I for z/OS V3.3 can run on the following:

- z/OS V1.1 (5694-A01), or later
- OS/390® V2.10 (5647-A01), or later

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

Planned availability date

October 31, 2003

For ordering, contact:

Your IBM representative, an IBM Business Partner, or the Americas Call Centers at

800-IBM-CALL

Reference: LE001

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Description

Compiler enhancements

Ability to generate XML for PL/I structures: A new built-in function has been added that will write XML with the names and values of the elements of a referenced structure to a buffer and return the number of bytes written. This XML can then be passed to other applications, including code using the PL/I SAX parser, which want to consume it.

Improved performance

- The compilation time under OPT(2) will be significantly less than under Enterprise PL/I V3.2, especially for large programs.
- The compiler now uses the ED and EDMK instructions for inlined numeric conversions to PICTURE and CHARACTER. This results in faster, shorter code sequences and also in faster compilations.
- The compiler now generates better code for string comparisons. This also results in faster, shorter code sequences.
- The compiler now generates shorter, faster code for conversion from FIXED DECIMAL to PICTURE with trailing overpunch characters.
- The ARCH and TUNE compiler options now accept 5 as a valid suboption. Under ARCH(5), the compiler will generate, when appropriate, some new z/Architecture™ instructions such as NILL, NILH, OILL, OILH, LLILL, and LLILH.

Easier migration

- Under the new NORESEXP compiler option, the evaluation of restricted expressions in code will be limited so that it matches the way it was in the earlier compilers.
- The new BIFPREC compiler option controls the precision of the FIXED BIN result returned by various built-in functions and thus provides for better compatibility with the OS PL/I compiler.
- The new BACKREG compiler option controls which register the compiler uses as the backchain register and thus allows for easier mixing of old and new object code.
- SYSPRINT when written to SYSOUT may now be shared by any PL/I program running under Language Environment®.
- The STORAGE compiler option causes the compiler to produce as part of the listing a summary, similar to that produced by the OS PL/I compiler, of the storage used by each procedure and begin-block.
- The new BLKOFF compiler option provides for controlling the way offsets in the compiler's pseudo-assembler listing are calculated.

Improved usability

- The new LAXDEF suboption of the RULES compiler option allows the use of so-called illegal defining without having the compiler generate E-level messages.
- The new FLOATINMATH compiler option offers easier control of the precision with which math functions are evaluated.

- The new MEMINDEX, MEMSEARCH, and MEMVERIFY built-in functions provide the ability to search strings larger than 32K.
- The new ROUTCDE and DESC suboptions of the DISPLAY(WTO) compiler option offers control of the corresponding elements of the WTO.
- The compiler will now store in each object a short string that will be in storage even when the associated code runs and that records all the options used to produce that object. This allows various tools to produce better diagnostics.
- The compiler will now issue messages identifying more of the places where statements have been merged or deleted.
- The PLIDUMP output will now include:
 - Hex dump of user static
 - The options used to compile each program in the Language Environment traceback
 - More information on PL/I files

Improved debug support: The Enterprise PL/I compiler is enhanced in V3.3 to support the new level of debug tool included in either the V3.3 full-function offering, or, as the separate, new IBM Debug Tool for z/OS V4 product. Included in the compiler is support for:

- BASED structures using REFER are now supported in the debugger and in data-directed I/O statements (with the same restrictions as on all other BASED variables).
- BASED structures that are BASED on scalar members of other structures (which, in turn, may be BASED, etc) are now supported in the debugger and in data-directed I/O statements (with the same restrictions as on all other BASED variables).

Full-function vs alternate function offerings

The mainframe interactive debug tool is offered with the Enterprise PL/I compiler in what is called 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 for customers who do wish to receive the Enterprise PL/I for z/OS compiler but not the debug tool.

IBM Debug Tool for z/OS V4 is also offered as a separate product. For more information about the function offered in the debug tool, refer to Software Announcement 203-237, dated September 16, 2003.

Hardware and software support services

SmoothStart™ /Installation services

SmoothStart and Installation Services are not provided.

Trademarks

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IBM US Announcement Supplemental Information

October 14, 2003

Technical information

Hardware requirements: Enterprise PL/I for z/OS® will run on any hardware configuration supported by the licensed programs specified below.

Software requirements: Unless otherwise announced by IBM, Enterprise PL/I for z/OS V3.3 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 preventive service planning (PSP) bucket.

Required licensed programs

- z/OS V1.2 (5694-A01), or later

Note: Applications compiled with Enterprise PL/I for z/OS V3.3 can run on the following:

- z/OS V1.1 (5694-A01), or later
- OS/390® V2.10 (5647-A01), or later

Optional licensed programs

- CICS® Transaction Server for OS/390 V1 (5655-147)
- CICS Transaction Server for z/OS V2 (5697-E93)
- COBOL for MVS™ & VM V1.2 (5688-197)
- COBOL for OS/390 & VM V2.1 (5648-A25)
- Enterprise COBOL for z/OS and OS/390 V3.1 (5655-G53)
- DB2® UDB for OS/390 V6 (5645-DB2)
- DB2 UDB for z/OS and OS/390 V7 (5675-DB2)
- Debug Tool for z/OS V4.1 (5655-L24)
- Debug Tool Utilities and Advanced Functions for z/OS V4.1 (5655-L23)
- DFSORT™ R13 (5740-SM1)
- High Level Assembler/MVS and VM and VSE (5696-234)
- IMS/ESA® V6 (5655-158)
- IMS/ESA V7 (5655-B01)
- OS PL/I V2.3 (5668-909, 5668-910, 5668-911)
- PL/I for MVS & VM R1.1 (5688-235)
- VisualAge® PL/I for OS/390 V2.2 (5655-B22)
- VS Fortran V2 (5668-806, 5688-087)

Planning information

Packaging: The Enterprise PL/I for z/OS V3.3 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

Current licensees

Current licensees of IBM Enterprise PL/I for z/OS and OS/390 V3.2 will be sent a program reorder form that can be returned directly to IBM Software Delivery and Fulfillment.

Reorder forms are scheduled to be mailed by two weeks after planned availability. Reorder forms returned to IBM Software Delivery and Fulfillment will be processed within 10 workdays of receipt. When V3.3 is available, V3.2 will no longer be available.

New licensees

Orders for new licenses can be placed now.

Orders that ship before the planned availability will receive IBM Enterprise PL/I for z/OS and OS/390 V3.2.

Orders that ship after the planned availability date will receive IBM Enterprise PL/I for z/OS V3.3.

New users of IBM Enterprise PL/I for z/OS V3 should specify machine type 5655, model H31. For ordering information on IBM Enterprise PL/I for z/OS V3, refer to Software Announcement 201-344, dated November 27, 2001.

Unlicensed documentation: A Program Directory (GI10-8426) and Licensed Program Specifications (GC27-1455) is supplied automatically with the basic machine-readable material. No other hardcopy publications are shipped with the product.

This announcement is provided for your information only. For additional information, contact your IBM representative, call 800-IBM-4YOU, or visit the IBM home page at: <http://www.ibm.com>.

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

Most product media is shipped only via Customized Offerings (for example, CBPDO, ServerPac, Systempac®). Non-customized items (CDs, diskettes, source media, media kits) will continue to be shipped via the stand-alone product.

Terms and conditions

The terms for Enterprise PL/I for z/OS V3, as previously announced in Software Announcement 201-344, dated November 27, 2001, licensed under the IBM Customer Agreement (ICA) are unaffected by this announcement.

IBM Operational Support Services — Support Line: Yes

Prices

Contact your IBM representative for pricing information for this announcement.

Order now

To order, contact the Americas Call Centers, your local IBM representative, or your IBM Business Partner.

To identify your local IBM representative or IBM Business Partner, call 800-IBM-4YOU (426-4968).

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Note: Shipments will begin after the planned availability date.

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