IBM Enterprise COBOL for z/OS and OS/390 V3R1 — Integrate COBOL Business and Web-Oriented Processes

Overview

IBM Enterprise COBOL for z/OS™ and OS/390® V3R1 gives you the needed COBOL function to begin to integrate COBOL business and Web-oriented business processes. With the capabilities of this release, developers can:

- Simplify the componentization of COBOL programs and enable interoperability with Java™ components across distributed applications
- Promote the exchange and usage of data in standardized formats including XML and Unicode
- Facilitate the reuse of existing applications in WebSphere™ and traditional z/OS environments

The goal of Enterprise COBOL V3R1 is to enable developers to leverage 30 years' worth of applications in new endeavors.

Key Prerequisites

One of the following:
- z/OS V1R1 (5694-A01), or later
- OS/390 V2R10 (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 Dates

- November 30, 2001, Alternate Function Offering
- March 29, 2002, Full-Function Offering

At a Glance

IBM Enterprise COBOL for z/OS and OS/390 V3R1 provides the following new functions:
- Java interoperability
- WebSphere interoperability
- Extensible Markup Language (XML) support
- CICS® translator integration
- Unicode support
- Enhancements to z/OS and OS/390 UNIX® System Services support for thread and asynchronous signal toleration

For ordering, contact:
Your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL
Reference: LE001

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.
Enterprise COBOL provides object-oriented syntax to facilitate the interoperation of COBOL and Java programs. Support is based upon the facilities of the Java Native Interface, which is the primary means provided by Java for interoperation with non-Java programs. However, the Java Native Interface is designed for use with C and C++, and is difficult to use directly from COBOL.

The object-oriented COBOL syntax is designed to enable COBOL programmers to easily write COBOL code that:

- Creates object instances of classes that are written in Java or COBOL
- Invokes methods on Java or COBOL objects
- Defines classes with methods written in COBOL

Object instances of COBOL classes may be created from Java or COBOL. Methods of these classes can be invoked from Java or COBOL. COBOL classes may inherit from Java classes or other COBOL classes; Java classes may extend COBOL classes. COBOL may define and invoke overloaded methods.

COBOL methods may use COBOL CALL statements to interface with procedural COBOL programs. Thus COBOL class definition syntax may be especially useful for writing “wrapper” classes for traditional COBOL logic, enabling existing COBOL code to be accessed from Java.

Basic Java-oriented object capabilities are available directly through the COBOL language. Additional Java-oriented capabilities are available to the COBOL programmer by using calls to the services provided by the Java Native Interface. The Java interoperability capabilities of IBM COBOL leverage other new support introduced in this release:

- Java programs can be multithreaded. Java interoperation requires tolerance of asynchronous signals. To mix COBOL with these Java programs requires the thread enablement provided with the THREAD compiler option.
- Java String data is represented at run time in Unicode. The Unicode support provided with the new COBOL national data type enables COBOL programs to exchange string data with Java programs.

Object-oriented COBOL programs and z/OS Java programs are developed and executed under the z/OS Unix System Services environment.

WebSphere Interoperation

The Java interoperability capabilities of COBOL may be used to access Enterprise Java Beans (EJB) running in a J2EE-compliant EJB server, such as the WebSphere Application Server. To do this, the client environment must support a Java-based Object Request Broker (ORB). The client COBOL application may use COBOL INVOKE statements to access the programming interfaces of:

- The Java Naming and Directory Interface (JNDI) to locate EJB services and components
- The Java ORB to invoke methods on enterprise beans

This version is designed to introduce basic XML capability to COBOL. The support includes a high-speed XML parser, which allows programs to:

- Consume inbound XML messages
- Check them for being well-formed
- Transform their contents to COBOL data structures

The XML support in this release does not provide XML generation. It must instead be accomplished by COBOL program logic. The XML support has no special environmental requirements. It executes in all the principal run-time environments, including CICS, Information Management System (IMS™), and MQSeries®.

The XML support can be used to enhance your existing high-performance IMS transactions written in COBOL in a business-to-business (B2B) environment by receiving and sending XML documents in the data portion of the IMS message. The messages can be placed and retrieved for the IMS messages queue for all messages regions including Message Processing Program (MPP), IMS Fast Path (IFP), and Batch Message Processing (BMP).

Integrated CICS Translator

With this release, compilation of COBOL programs containing CICS statements no longer requires a separate translation step with the CICS translator. An integrated translator approach is an alternative to using the separate translator. With the integrated translator approach, the COBOL compiler handles both native COBOL and imbedded CICS statements in the source program.

When the CICS statements are encountered, and at other significant points in the source program, the compiler interfaces with the integrated CICS translator. The integrated CICS translator takes appropriate actions and then returns to the compiler typically indicating which native language statement to generate at that point.

While the separate translator approach is still supported, the integrated CICS translator approach is the preferred and recommended solution. It provides improved usability and the highest level of function. In particular:

- Interactive debugging of COBOL applications with the Debug Tool is enhanced because the application can be debugged at the original source level, instead of at the level of the expanded source produced by the CICS translator.
- EXEC CICS or EXEC DLI statements can be in copybooks without the need to separately translate them before compilation.
- There is no need for an intermediate data set to hold the translated but not compiled version of the source program.
- There is only one output listing instead of two.
- Using nested programs that contain EXEC CICS statements is simplified.
- Nested programs that contain EXEC CICS statements can be held in separate files and included through a COPY statement.
REPLACE statements can now affect EXEC CICS statements.

Binary fields in CICS control blocks are generated with USAGE COMP-5 instead of BINARY. Thus there is no longer a dependency on the setting of the TRUNC compiler option.

Basic Unicode Support

A new national data type, national literals, intrinsic functions, and compiler option provide basic run-time support for Unicode. COBOL source programs continue to be encoded in an EBCDIC (SBSCS or DBCS) code page. Unicode encodes all the characters by the world’s major written languages. There are multiple encoding schemes to represent Unicode including UTF-8, UTF-16, and UTF-32. Enterprise COBOL supports Unicode using UTF-16. UTF-8 data may be converted explicitly to UTF-16 and processed in the UTF-16 representation. The data may be converted back to UTF-8 after the processing in the COBOL program.

COBOL Unicode enhancements provide basic support for the new Chinese character standard GB18030. GB18030 characters are encoded via the existing Chinese EBCDIC code page, CCSID 01388 (expanded to include GB 18030 characters not requiring UTF-16 surrogate values). This character data may be converted to Unicode, processed in Unicode, and converted back to the EBCDIC code page.

Thread and Asynchronous Signal Tolerance Support

V3R1 introduces a toleration level of support for POSIX threads and signals. Prior versions of IBM COBOL host products limited COBOL to execution on only one POSIX thread. The support added in this release is designed so that an application can contain COBOL programs running on multiple threads within a process. No explicit COBOL language or features are added for initiating threads or for thread serialization in this release. Typically, these capabilities will be handled outside COBOL by C programs, or by calling POSIX APIs directly from COBOL. The level of support is analogous to the level of support for threads provided by VisualAge® COBOL for Windows NT® and COBOL Set for AIX®.

Other Usability Enhancements

• Large VALUE clauses on COMP-5 items or BINARY items with TRUNC(BIN)
• Function-pointer datatype
• Arguments specifying ADDRESS OF WORKING-STORAGE item

Full-Function vs Alternate Function Offerings

The mainframe interactive debug tool is offered with the Enterprise COBOL compiler in what is called the Full-Function offering. This debug tool is a common facility that supports:

• Enterprise COBOL for z/OS and OS/390
• COBOL for OS/390 and VM
• COBOL for MVS™ and VM
• VisualAge PL/I for OS/390
• PL/I for MVS and 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 COBOL for z/OS and OS/390 compiler but not the debug tool.

The debug tool is also offered as a separate product, IBM Debug Tool for z/OS and OS/390 V1R3. For more information about the functionality offered in the debug tool, refer to Software Announcement 201-xxx, dated November 27, 2001.

Hardware and Software Support Services

SmoothStart installation Services

SmoothStart and Installation Services are not provided.

Trademarks

z/OS, WebSphere, IMS, MVS, and SmoothStart are trademarks of International Business Machines Corporation in the United States or other countries or both. OS/390, CICS, MQSeries, AIX, and VisualAge are registered trademarks of International Business Machines Corporation in the United States or other countries or both. Windows NT is a registered trademark of Microsoft Corporation. Java is a trademark of Sun Microsystems, Inc. UNIX is a registered trademark of the Open Company in the United States and other countries. Other company, product, and service names may be trademarks or service marks of others.
Consulting Services

The IBM Enterprise AD Tooling Consultant services team from the IBM Silicon Valley Laboratory is available to assist you in moving forward and upgrading to the new COBOL compiler. Let your programmers know when the new compiler is installed so they can take advantage of the new features and functions. If you are running COBOL for OS/390® & VM, COBOL for MVS™ & VM, or COBOL/370™, there may be some conversion/migration required. But if you are running any of the older COBOL compilers (OS/VS COBOL, VS COBOL II), you do not need to convert all your source code at once.

It is recommended to do a run-time migration and then a selective source conversion. Many customers may not have current documentation regarding the parameters used to build their existing modules. This information leads to a smoother transition to the supported run-time library, Language Environment® (LE), and to the new COBOL compiler.

For assistance with the run-time migration, the services team offers the S/390® Languages Migration Assessment that provides an assessment of your current load libraries to identify compiler levels used, compiler options used, run times and subsystems in use. This information allows the consultant to help you plan for the installation/integration of LE including run-time options, storage settings, compiler options, and considerations for your shop. The consultant will educate your IT organization regarding LE’s benefits and technical concepts.

For assistance with converting your source code, the services team offers the S/390® Languages Migration/Conversion where the consultant will perform locally or at a remote location, the conversion of your ANSI 68/74 source to ANSI 85 standard that is required for the new COBOL compiler. The converted code will be provided to you in a clean compile and relink state. This services offering may also educate your IT organization regarding LE’s benefits and technical concepts, discuss potential impact of non-LE enabled vendor code, and assist with your migration plan.

These services are performed by consultants from our development team and are fee-based offerings.

For more details on these services offerings and others available, visit the IBM Enterprise Developer Domain Web site:

http://www.ibm.com/software/ad/enterprise

Click on “Services” or send e-mail to aimets@us.ibm.com.

Technical Information

Hardware Requirements: Enterprise COBOL for z/OS™ and OS/390 will run on any hardware configuration supported by the licensed programs specified below.

Software Requirements: Unless otherwise announced by IBM, Enterprise COBOL for z/OS and OS/390 V3R1 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, the customization guide, and the preventive support planning (PSP) bucket.

Required Licensed Programs

- One of the following:
  - z/OS V1R1 (5694-A01), or later
  - OS/390 V2R10 (5647-A01)

Optional Licensed Programs

- CICS® Transaction Server for OS/390 V1 (5655-147)
- CICS Transaction Server for z/OS V2 (5697-E93)
- V2 of CICS Transaction Server is required to use the Integrated CICS Translator support.
- COBOL Report Writer R4 (5798-DYR, 5798-DZX)
- DB2® UDB for OS/390 V6 (5645-DB2)
- DB2 UDB for OS/390 V7 (5675-DB2)
- V7 of DB2 UDB is required for DB2 coprocessor support.
- Debug Tool for z/OS and OS/390 V1R3 (5688-194)
- DFSORT™ R13 (5740-SM1)
- High Level Assembler/MVS & VM & VSE (5696-234)
- IMS/ESA® V6 (5655-158)
- IMS/ESA V7 (5655-B01)
- OS PL/I V2R3 (5668-909, 5668-910, 5668-911)
- PL/I for MVS & VM R1.1 (5668-235)
- VisualAge® PL/I for OS/390 V2R2 (5655-B22)
- Enterprise PL/I for z/OS and OS/390 V3R1 (5655-H31)
- VS FORTRAN V2 (5668-806, 5668-807)

Compatibility: The following summarizes the compatibility characteristics of IBM Enterprise COBOL for z/OS and OS/390 V3. Full details will be provided in the Migration Guide and the Licensed Programming Specifications.

IBM Enterprise COBOL for z/OS and OS/390 V3 provides source code and object code compatibility with its predecessor product, IBM COBOL for OS/390 & VM Version 2, with the following exceptions:

- The CMPR2 compiler option has been removed, so source programs still using VS COBOL II R1 or 2 level syntax must be migrated to conform to ANSI/ISO COBOL 85 standard rules before they can be compiled with IBM Enterprise COBOL V3.
- SOM®-based object-oriented (OO) COBOL applications are no longer supported. Object Oriented COBOL syntax is retargeted for Java™-based OO programming. Further, the primary purpose of the OO syntax is not stand-alone OO COBOL programming, rather the syntax is intended to facilitate interoperation of COBOL and Java.

- Support for the VM/CMS environment is not provided in this product.

- New reserved words are defined.

- In addition to CMPR2, the ANALYZE, FLAGMIG, IDLGEN, and TYPECHK compiler options are removed.

- The pseudo-assembly listing produced by the LIST compiler option is slightly changed, which may impact development tools that process the listing. IBM recommends that such tools use the ADATA compiler option to obtain desired information about the compilation, rather than the listing.

### Planning Information

#### Packaging:

The Enterprise COBOL for z/OS and OS/390 V3 package includes:

- Basic machine-readable material on the customer-selected distribution medium
- Program Directory (GI10-8423)
- Customization under z/OS and OS/390 (GC27-1410)

#### 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.

### Customer Financing

IBM Global Financing offers attractive financing to credit-qualified commercial and government customers and Business Partners in more than 40 countries. IBM Global Financing is provided by the Credit Corporation in the United States. Offerings, rates, terms, and availability may vary by country. Contact your local IBM Global Financing organization. Country organizations are listed on the Web:


### Ordering Information

#### New Licensees

- Orders for new licenses can be placed now.
- Shipment will not occur before availability date.
- Shipment will begin on the planned availability date.
- Unless a later date is specified, orders entered before the planned availability date will be assigned a schedule date of one week following availability.
- Orders entered after the planned availability date will be assigned a schedule date for the week following order entry.

- New users of IBM Enterprise COBOL for z/OS and OS/390 V3 should specify machine type/model 5655-G53.

#### Entry Support License (ESL):

To order an ESL license, specify the program number, feature number 9001 for asset registration, and the applicable ESL one-time charge (OTC) feature number. Also specify the feature number of the desired distribution medium.

<table>
<thead>
<tr>
<th>ESL Feature Number</th>
<th>OTC Feature Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM Enterprise COBOL for z/OS and OS/390 V3 Full-Function Offering</td>
<td>0018</td>
</tr>
<tr>
<td>IBM Enterprise COBOL for z/OS and OS/390 V3 Alternate Function Offering</td>
<td>0050</td>
</tr>
</tbody>
</table>

ESL machines can be determined by referring to the IBM Entry End User/390 Attachment (Z125-4379).

#### Parallel Sysplex® License Charge (PSLC) Basic License:

To order a basic license, specify the program number and feature number 9001 for asset registration. Specify the PSLC Base feature. If applicable, specify the PSLC Level A and PSLC Level B, and PSLC Level C, and PSLC Level D features and quantity.

If there is more than one program copy in a Parallel Sysplex, the charge for all copies is associated to one license by specifying the applicable PSLC feature numbers and quantity represented by the sum of the Service Units in Millions (MSUs) in your Parallel Sysplex. For all other program copies, specify the PSLC No-Charge (NC) Identifier feature on the licenses.

Also, specify the feature number of the desired distribution medium.

<table>
<thead>
<tr>
<th>Machine MSU Capacity</th>
<th>PSLC Feature Number</th>
<th>PSLC Basic License MLC Feature Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full-Function</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>0001 PSLC Base, 1 MSU</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0002 PSLC Base, 2 MSUs</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0003 PSLC Base, 3 MSUs</td>
</tr>
<tr>
<td></td>
<td>4 - 45</td>
<td>0004 PSLC Level A, 1 MSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0005 PSLC Level A, 42 MSUs</td>
</tr>
<tr>
<td></td>
<td>46 - 175</td>
<td>0006 PSLC Level B, 1 MSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0007 PSLC Level B, 10 MSUs</td>
</tr>
<tr>
<td></td>
<td>176 - 315</td>
<td>0008 PSLC Level B, 50 MSUs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0010 PSLC Level C, 1 MSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0011 PSLC Level C, 50 MSUs</td>
</tr>
<tr>
<td></td>
<td>316 or more</td>
<td>0012 PSLC Level D, 1 MSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0013 PSLC Level D, 50 MSUs</td>
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<tr>
<td></td>
<td>NA</td>
<td>0014 PSLC NC IDENTIFIER</td>
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<tr>
<td></td>
<td>Alternate Function</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>0033 PSLC Base, 1 MSU</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0034 PSLC Base, 2 MSUs</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0035 PSLC Base, 3 MSUs</td>
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<tr>
<td></td>
<td>4 - 45</td>
<td>0036 PSLC Level A, 1 MSU</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0037 PSLC Level A, 42 MSUs</td>
</tr>
<tr>
<td></td>
<td>46 - 175</td>
<td>0038 PSLC Level B, 1 MSU</td>
</tr>
</tbody>
</table>

-2-
Example 1: For a single machine with 11 MSUs, the PSLC features to be ordered would be:
- PSLC Base, 3 MSUs — quantity 1
- PSLC Level A, 1 MSU — quantity 8

Example 2: For two machines in a Parallel Sysplex, which have an aggregation of 60 MSUs, the PSLC features to be ordered would be:
- PSLC chargeable license #1:
  - PSLC Base, 3 MSUs — quantity 1
  - PSLC Level A, 42 MSUs — quantity 1
  - PSLC Level B, 1 MSU — quantity 5
  - PSLC Level B, 10 MSUs — quantity 1
- PSLC no-charge license #2:
  - PSLC N/C ID — quantity 1

Variable Workload License Charge (WLC) Basic License:
To order a basic license, specify the program number and feature number 9001 for asset registration. Specify the WLC base feature. If applicable, specify the WLC Level 1, WLC Level 2, WLC Level 3, and WLC Level 4 features with the appropriate quantity. Also, specify the feature number of the desired distribution medium.

Variable WLC Aggregation: When z/OS is installed on two or more S/390 or IBM @server zSeries 900 machines comprising a sysplex, Variable WLC aggregation applies to z/OS and the S/390 software programs that have Variable WLC. Whether there is only one license or more than one license of the program in the sysplex, the charge for all licenses is associated to the “aggregation license” by specifying the applicable WLC feature numbers and quantity represented by the sum of the MSUs (millions of service units) in the sysplex.

The “aggregation license” is an additional program license that is ordered and serialized, although there is no shipment associated with it. For the actual licenses, the charge is reflected as $0 by specifying the applicable “registration” Variable WLC feature numbers and the quantity equal to the MSUs of that license running on the designated machine.
Example 1: For a single machine with the program running at 220 MSUs, the Variable WLC features to be ordered would be:

- Base, Level 1 includes 45 MSUs — quantity 1
- Additional qty, Level 1 up to 175 MSUs — quantity 130
- Additional qty, Level 2 176 — 315 MSUs — quantity 45

Example 2: If there are two machines in a sysplex, and a program is running on machine #1 at 190 MSUs and on machine #2 at 140 MSUs, the Variable WLC feature numbers and quantities to be ordered would be:

- License on machine #1 for 190 MSUs:
  - Registration Base, Level 1 incl 1 MSU — quantity 1
  - Reg additional quantity Level 1 up to 175 MSUs — quantity 174
  - Reg additional quantity Level 2 176 — 315 MSUs — quantity 15
  - 0024 — quantity 15
- License on machine #2 for 140 MSUs:
  - Registration Base, Level 1 incl 1 MSU — quantity 1
  - Reg additional quantity Level 1 up to 175 MSUs — quantity 139
- Aggregation license for a total of 330 MSUs:
  - Base, Level 1 includes 45 MSUs — quantity 1
  - Additional qty, Level 1 up to 175 MSUs — quantity 130
  - Additional qty, Level 2 176 — 315 MSUs — quantity 140
  - Additional qty, Level 3 316 — 575 MSUs — quantity 15

Growth Opportunity License Charge (GOLC): To order GOLC software, specify the program number, feature number 9001 for asset registration, and the GOLC monthly charge feature number from the table below. Also, specify the feature number for the desired distribution medium.

<table>
<thead>
<tr>
<th>GOLC Category</th>
<th>GOLC Feature Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Function Offering</td>
<td></td>
</tr>
<tr>
<td>H30</td>
<td>0015</td>
</tr>
<tr>
<td>H50</td>
<td>0016</td>
</tr>
<tr>
<td>H70</td>
<td>0017</td>
</tr>
<tr>
<td>Alternate Function Offering</td>
<td></td>
</tr>
<tr>
<td>H30</td>
<td>0047</td>
</tr>
<tr>
<td>H50</td>
<td>0048</td>
</tr>
<tr>
<td>H70</td>
<td>0049</td>
</tr>
</tbody>
</table>

Single Version Charging: To elect single version charging, the customer must notify and identify to IBM the prior program and replacement program and the designated machine the programs are operating on.

Basic Machine-Readable Material

<table>
<thead>
<tr>
<th>Environment</th>
<th>Feature Number</th>
<th>Distribution Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Function Offering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>z/OS and OS/390</td>
<td>5801</td>
<td>9/6250 tape</td>
</tr>
<tr>
<td>z/OS and OS/390</td>
<td>5802</td>
<td>3480 tape cartridge</td>
</tr>
<tr>
<td>z/OS and OS/390</td>
<td>6510</td>
<td>4 mm-DAT cartridge</td>
</tr>
<tr>
<td>Alternate Function Offering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>z/OS and OS/390</td>
<td>5821</td>
<td>9/6250 tape</td>
</tr>
<tr>
<td>z/OS and OS/390</td>
<td>5832</td>
<td>3480 tape cartridge</td>
</tr>
<tr>
<td>z/OS and OS/390</td>
<td>6513</td>
<td>4 mm-DAT cartridge</td>
</tr>
</tbody>
</table>

Customization Options: Select the appropriate feature numbers to customize your order to specify the delivery options desired. These features can be specified on the initial or MES orders.

Example: If publications are not desired for the initial order, specify feature number 3470 to ship media only. For future updates, specify feature number 3480 to ship media updates only. If, in the future, publication updates are required, order an MES to remove feature number 3480; then, the publications will ship with the next release of the program.

Initial Shipments

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Initial Shipments</td>
<td></td>
</tr>
<tr>
<td>Serial number only (suppresses shipment of media and documentation)</td>
<td>3444</td>
</tr>
<tr>
<td>Ship media only (suppresses initial shipment of documentation)</td>
<td>3470</td>
</tr>
<tr>
<td>Ship documentation only (suppresses initial shipment of media)</td>
<td>3471</td>
</tr>
</tbody>
</table>

Update Shipments

<table>
<thead>
<tr>
<th>Description</th>
<th>Feature Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update Shipments</td>
<td></td>
</tr>
<tr>
<td>Ship Media updates only (suppresses update shipment of documentation)</td>
<td>3480</td>
</tr>
<tr>
<td>Ship documentation only (suppresses update shipment of media)</td>
<td>3481</td>
</tr>
<tr>
<td>Suppress updates (suppresses update shipment of media and documentation)</td>
<td>3482</td>
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Expedite Shipments

<table>
<thead>
<tr>
<th>Description</th>
<th>Feature Number</th>
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</thead>
<tbody>
<tr>
<td>Expedite Shipments</td>
<td></td>
</tr>
<tr>
<td>Local IBM office expedite (for IBM use only)</td>
<td>3445</td>
</tr>
<tr>
<td>Customer expedite process charge ($30 charge for each product)</td>
<td>3446</td>
</tr>
</tbody>
</table>

Expedite shipments will be processed to receive 72-hour delivery from the time IBM Software Delivery and Fulfillment (SDF) receives the order. SDF will then ship the order via overnight air transportation.
Unlicensed Documentation: A memo to users, program directory, and one copy of Enterprise COBOL for z/OS and OS/390 Customization Under z/OS and OS/390 are supplied automatically with the basic machine-readable material.

The following optional publications will be available by December 28, 2001:

- Enterprise COBOL for z/OS and OS/390 Language Reference (SC27-1408)
- Enterprise COBOL for z/OS and OS/390 Compiler and Run-Time Migration Guide (GC27-1409)
- Enterprise COBOL for z/OS and OS/390 Licensed Program Specifications (GC27-1411)
- Enterprise COBOL for z/OS and OS/390 Programming Guide (SC27-1412)

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