IBM WebSphere Developer for zSeries Version 6.0.1

IBM

IBM WebSphere Developer for zSeries Host Planning Guide

Version 6.0.1

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> **Note**
>
> Before using this document, read the general information under "Notices" on page 13.

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This edition applies to version 6.0.1 of IBM WebSphere Developer for zSeries (product number 5724-L44) and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

Preface

This document is intended for planning the installation of WebSphere® Developer requisite software on host systems. The document provides the System Administrator with information necessary to organize the overall host installation effort, including a roadmap to other documents for detailed installation and configuration instructions.

Before you use this document

IBM WebSphere Developer for zSeries Version 6.0.1 has mandatory prerequisites and functional requisites. The product will not function unless the mandatory prerequisites are met. A functional requisite is not necessary for the successful installation of the product, but it is needed at runtime for a specific function supported by the product.

The following mandatory prerequisites and functional requisites are also listed in the *Prerequisites for IBM WebSphere Developer for zSeries Version 6.0.1*.

Chapter 1. Installing the host components

For each of the following functions, install the required FMIDs. For installation information about the various FMIDs, please refer to the corresponding program directory for the FMID you are installing. You can find the configuration and customization information for each of these functions in the *IBM WebSphere Developer for zSeries Configuration Guide (SC31-6930-00)*.

Table 1. WebSphere Developer installation and configuration matrix

If you require this WebSphere Developer for zSeries function	You must install these FMIDs	And you will find configuration information here
• Host Connectivity • JES Connectivity	H001600, H002600	See: • "Activating IBM® WebSphere Developer for zSeries® RSE+ICU" • "Activating IBM WebSphere Developer for zSeries JES JOB MONITOR" in the *IBM WebSphere Developer for zSeries Configuration Guide (SC31-6930-00)*
• RSE Remote Compile • Error Feedback for Remote Compile • Remote Debugging • DB2 Stored Procedures • BMS Map Support • SCLM Access	HEDS500, H001600, H002600	See: • "Activating IBM WebSphere Studio Enterprise Developer Options for z/OS®" • "Activating IBM WebSphere Developer for zSeries RSE+ICU" • "Activating IBM WebSphere Developer for zSeries JES JOB MONITOR" in the *IBM WebSphere Developer for zSeries Configuration Guide (SC31-6930-00)*
• Common Software Configuration Management Access	H001600, HCMA601	See: • "Activating IBM WebSphere Developer for zSeries RSE+ICU" • and "Activating the IBM WebSphere Developer for zSeries Common Access Repository Manager" in the *IBM WebSphere Developer for zSeries Configuration Guide (SC31-6930-00)*
• Enterprise Generation Language (EGL)	HEDS500, H284500	See: • "Activating IBM WebSphere Studio Enterprise Developer Options for z/OS" in the *IBM WebSphere Developer for zSeries Configuration Guide (SC31-6930-00)*. See also, the EGL documentation including the Program Directory for H284500.

Table 1. WebSphere Developer installation and configuration matrix (continued)

If you require this WebSphere Developer for zSeries function	You must install these FMIDs	And you will find configuration information here
• Bidirectional language support	HBDI601	See: • "WebSphere Developer for zSerires Bidirectional support" in the *IBM WebSphere Developer for zSeries Configuration Guide (SC31-6930-00)*

Note: *IBM WebSphere Developer for zSeries Configuration Guide (SC31-6930-00)* (hostconfig.pdf) is available on the root directory of installation CD1 or on the Client machine in the ″wdz_prod″ directory or you can download it from the library page of the IBM WebSphere Developer for zSeries Version 6.0.1 website (http://www-306.ibm.com/software/awdtools/devzseries/)

Chapter 2. Host prerequisites and corequisites for WebSphere Developer for zSeries

IBM WebSphere Developer for zSeries installation CDs provide multiple components to support the development and execution of programs created with WebSphere Developer. The list of components included is as follows:

- WebSphere Studio Enterprise Developer Options for z/OS v5.0. This provides the following functions:
  - The USS and MVS™ Build servers
  - A 390 build server used for building native COBOL programs
  - The modules necessary for WebSphere Developer to interface with Software Configuration and Library Manager (SCLM)
  - The modules necessary for the COBOL and PL/I tools (called z/OS application development tools) to receive error feedback during remote project builds
- IBM WebSphere Developer for zSeries RSE + ICU
- IBM WebSphere Developer for zSeries JES Job Monitor
- IBM WebSphere Developer for zSeries Common Access Repository Manager
- IBM WebSphere Developer for zSeries BIDI Support

There are prerequisites and corequisites for using this software.

WebSphere Developer host prerequisites

Use of the WebSphere Studio Enterprise Developer Options for z/OS requires that you have one of the following environments, including batch functions with the appropriate prerequisites:

Program Number	Product Name
5694–A01	z/OS v 1.4 or higher

These operating systems include the following components, which need to be installed, configured, and operational:

- Binder
- High Level Assembler
- Interactive System Productivity Facility (ISPF)
- IBM Language Environment®
- IBM HTTP Server (Optional) — for use with the SCLM interface
- Unix System Services
- HFS
- RACF®
- APPC
- IP Services component of IBM Communications Server

- One of the following levels of REXX must be installed on the host:

Program Number	Product Name	PTF's or Service Levels Required
5695-014	REXX/370 Library V1.3	No PTF or Service Level Required
5695-014	REXX/370 Alternate Library (FMID HWJ9143),	No PTF or Service Level Required

Additional Notes®:

1. REXX/370 Alternate Library is provided with WebSphere Studio Enterprise Developer Options for z/OS on the IBM WebSphere Developer for zSeries host installation CD.

2. The related product website is **www.ibm.com/software/awdtools/rexx/rexxzseries/**.

You must install IBM Language Environment fixes based on your operating system level and the language version in use as described in the following table:

Operating System Level	Language Version	APAR number for PTFs	PTFs
z/OS v 1.4	English	PK01298, PQ77835, PQ71779, PQ65176	UK01096, UQ80328, UQ75401, UQ70416
	Japanese	PK01298	UK01095
z/OS v 1.5	English	PK01298	UK01097
	Japanese	PK01298	UK01098
z/OS v 1.6	English	PK01298	UK01099
	Japanese	PK01298	UK01100

To install the options software on any of these operating systems, System Modification Program/Extended (SMP/E) Version 3 Release 1 or higher is required. The corresponding program number is 5655-G44.

WebSphere Developer host corequisites

The following products and other stated software are required to support specific features of WebSphere Developer. The WebSphere Developer workstation client can be successfully installed without these requisites. However, a stated requisite must be installed and operational at runtime for the corresponding feature to work as designed.

1. **IBM SDK for z/OS Java™ 2 Technology Edition**

   One of the following levels must be installed on the host to support applications using RSE server:

Program Number	Product Name	PTF's or Service Levels Required
5655–I56	IBM SDK for z/OS Java 2 Technology Edition, Version 1.4	No PTF or Service Level Required

2. **COBOL Compiler**

One of the following must be installed on the host to compile COBOL programs developed or edited within WebSphere Developer:

Program Number	Product Name	PTF's or Service Levels Required
5648-A25	IBM COBOL for OS/390® and VM V2.1 (minimum required level)	UQ24856, UQ46089, UQ42751
5655–G53	IBM Enterprise COBOL for z/OS V3.1	UQ75902
5535–G53	IBM Enterprise COBOL for z/OS V3.2	No PTF or Service Level Required
5535–G53	IBM Enterprise COBOL for z/OS V3.3	No PTF or Service Level Required

Additional Notes:

a. IBM Enterprise COBOL v 3.1 is the minimum level required to support:

  1) Population of the WebSphere Developer task list with translate and co-process errors when COBOL programs with CICS® and DB2® are built with the integrated option using WebSphere Developer build, JCL generation, and submission mechanisms

  2) The z/OS XML Converter of the XML Enablement for the Enterprise feature

  3) Unicode

  Note: IBM Enterprise COBOL for z/OS v 3.1 is the minimum level of the compiler required to enable integrated translator support for CICS and integrated co-processor support for DB2.

b. IBM Enterprise COBOL v 3.2 is a full function offering for remote debug support. Debug Tool for z/OS and OS/390 is shipped as part of this product.

c. Population of the task list with compile errors when COBOL programs without any CICS and DB2 statements is supported for all levels of COBOL compilers, beginning with the minimum level.

d. The related product website is **www.ibm.com/software/awdtools/cobol/zos/**

3. **PL/I Compiler**

One of the following must be installed on the host to compile PL/I programs developed or edited within WebSphere Developer:

Program Number	Product Name	PTF's or Service Levels Required
5688–235	PL/I for MVS and VM v 1.1	No PTF or Service Level Required
5655–B22	VisualAge® PL/I for OS/390 v 2.2	No PTF or Service Level Required
5655–H31	IBM Enterprise PL/I for z/OS and OS/390 v. 3.1	UQ75935
5655–H31	IBM Enterprise PL/I for z/OS and OS/390 v 3.5	UQ83140

Program Number	Product Name	PTF's or Service Levels Required
5655–H31	IBM Enterprise PL/I for z/OS and OS/390 v 3.3	UQ77592
5655–H31	IBM Enterprise PL/I for z/OS and OS/390 v 3.4	No PTF or Service Level Required

Additional Notes:

a. IBM Enterprise PL/I for z/OS and OS/390 v 3.2 is the minimum level required to support:

   1) Population of the WebSphere Developer task list with errors when PL/I programs are built using WebSphere Developer build, JCL generation, and submission mechanisms.

   Note: IBM Enterprise PL/I for z/OS and OS/390 v 3.1 is the minimum level of the compiler required to enable integrated translator support for CICS and integrated co-processor support for DB2.

b. IBM Enterprise PL/I v 3.2 is a full function offering for remote debug support. Debug Tool for z/OS and OS/390 is shipped as part of this product.

c. **UQ83140** is the latest PTF required for IBM Enterprise PL/I v 3.2 to populate the task list with errors encountered during build or PL/I syntax check.

d. The related product website is **www.ibm.com/software/awdtools/pli/plizos/**

4. **Debug tool for OS/390 and z/OS**

   The following software must be installed on the host to support remote debugging of COBOL and PL/I programs from WebSphere Developer:

Program Number	Product Name	Programming Language	APARs, PTFs or Service Levels Required	Description
5655–L24	IBM Debug Tool for z/OS and OS/390 v 4.1	PL/I	PQ81519/UQ00004	For all PL/I users of the English base
			PQ81590/UQ00003	For utilities and advanced functions support
			PQ81521/UQ00005	For all PL/I users of the Japanese base
5655–M18	IBM Debug Tool for z/OS and OS/390 v 5.1	PL/I	all available maintenance	For all PL/I users of the English base
			all available maintenance	For utilities and advanced functions support
			all available maintenance	For all PL/I users of the Japanese base
5724-N06	IBM Debug Tool for z/OS and OS/390 v 6.0	PL/I, COBOL	PK12833	For all PL/I users of the English base
			PK12834	For all COBOL users of the English base

Additional Notes:

a. This product must be ordered and purchased separately from WebSphere Studio Enterprise Developer Options for z/OS or the REXX Alternate Library; and can be ordered as a standalone product.

b. The product is included in the full function support of either IBM Enterprise PL/I for z/OS and OS/390 Version 3 Release 2 (Program Number 5655-H31) or IBM Enterprise COBOL for z/OS and OS/390 Version 3 Release 2 (Program Number 5655-G53).

c. The PTF UQ75633 for APAR PQ71801 is required to support configurations where the workstation client and Host both have firewalls in operation.

d. The related product website is **www.ibm.com/software/awdtools/debugtool/**

e. You must also be sure the following LE VisualAge PL/I Library PTFs are applied, in the order shown:

Table 2. VA PL/I debug PTFs

Program number	PTF	APAR
5688-198	UQ63827	PQ57907, debugger update
5688-198	UQ70331	PQ66023, automonitor support
5688-198	UQ81706	PQ79424, support structures with REFER
5688-198	UQ81706	PQ79424, message EQA1750E, "AN ERROR OCCURRED IN EXPRESSION EVALUATION". Occurs on PL/I assignment with debug tool variable as source of assignment.
5688-198	UQ81706	PQ79424, enhancements for V3R3, now also supported on V3R2

5. **CICS Transaction Server**

One of the following levels must be installed on the host to support applications with embedded CICS statements:

Program Number	Product Name	PTF's or Service Levels Required
5697–E93	CICS Transaction Server for z/OS v 2.2	No PTF or Service Level Required
5697–E93	CICS Transaction Server for z/OS v 2.3	No PTF or Service Level Required
5655–M15	CICS Transaction Server for z/OS v 3.1	No PTF or Service Level Required

Additional Notes:

a. CICS Transaction Server for z/OS v 2.2 has the integrated CICS Translator required to send errors encountered during WebSphere Developer build, JCL generation, and submission to the task list under the following conditions:

• COBOL or PL/I programs with embedded CICS are built

• The minimum compiler level is used: IBM Enterprise COBOL for z/OS v 3.1 or IBM Enterprise PL/I for z/OS and OS/390 v 3.1.

b. The CICS Transaction Server requires additional configuration to work with the Debug tool.

c. The related product websites are

www.ibm.com/software/htp/cics/platforms/cicsts/, **www-306.ibm.com/software/htp/cics/tserver/v31/** and **www-306.ibm.com/software/htp/cics/tserver/v23/**.

6. **IMS/ESA®**

One of the following levels must be installed on the host to support applications using IMS™ database and data communications:

Program Number	Product Name	PTF's or Service Levels Required
5655–B01	IMS/ESA v 7.1 or higher	No PTF or Service Level Required

Additional Notes:

a. IMS/ESA requires additional configuration to work with the Debug tool.

b. The related product website is **www.ibm.com/software/data/ims/ims/**.

7. **DB/2 UDB for OS/390**

One of the following levels must be installed on the host to support DB2 UDB for OS/390:

Program Number	Product Name	PTF's or Service Levels Required
5645–DB2	DB2 for z/OS and OS/390 v 6.1	No PTF or Service Level Required
5675–DB2	DB2 for z/OS and OS/390 v 7.1	PTF UQ75402

Additional Notes:

a. DB2 for z/OS and OS/390 v 7.1 has the integrated preprocessor required to send errors encountered during WebSphere Developer build, JCL generation, and submission back to the WebSphere Developer task list under the following conditions:

• COBOL or PL/I programs with embedded SQL are built

• The minimum compiler level is used: IBM Enterprise COBOL for z/OS v 3.1 or IBM Enterprise PL/I for z/OS and OS/390 v 3.1.

b. The related product website is **www.ibm.com/software/awdtools/cobol/zos/**.

8. **CICS220**

If you are using CICS220 as a target platform for EGL output, make sure that PTF UQ69442 has been applied to your CICS installation.

9. **COBOL Runtime Support for z/OS**

IBM Enterprise Developer Server for z/OS V5.0 provides the runtime libraries for programs that execute on z/OS. These are programs that were developed with either WebSphere Developer for zSeries or WebSphere Studio Enterprise Developer.

The runtime libraries provided by IBM Enterprise Developer Server for z/OS V5.0, provide common runtime subroutines that are shared by all Enterprise Generation Language (EGL) programs created with WebSphere Developer or WebSphere Studio Enterprise Developer (for example, data conversion and error management).

The following must be installed on the host to support the COBOL Runtime Support for z/OS.

Program Number	Product Name	PTF's or Service Levels Required
5655–I57	IBM Enterprise Developer Server for z/OS V5.0	UQ84056, UK00137

Chapter 3. Code to install on host

Installing required z/OS server tools

Many features of IBM WebSphere Developer for zSeries Version 6.0.1 require products and components to be installed and customized on z/OS. Included with IBM WebSphere Developer for zSeries Version 6.0.1 is the CD labeled *IBM WebSphere Developer Options for z/OS* . This CD provides multiple components to support the development and execution of programs created with IBM WebSphere Developer for zSeries Version 6.0.1.

The list of components included are as follows:
- IBM WebSphere Developer for zSeries ICU + RSE
- IBM WebSphere Developer for zSeries JES Job Monitor
- IBM WebSphere Developer for zSeries Common Access Repository Manager
- IBM WebSphere Developer for zSeries BIDI Support
- IBM WebSphere Developer Options for z/OS v5.0. This provides the following functions:
  - The USS and MVS Remote Build Servers.
  - The modules necessary for IBM WebSphere Developer for zSeries Version 6.0.1 to interface with SCLM.
  - The modules necessary for reporting the compile errors to the task list, when building the COBOL and PL/I applications using the IBM WebSphere Developer for zSeries Version 6.0.1 Client.
- REXX/370 Alternate Library. This provides the following:
  - The code necessary to execute the SCLM interface provided in WebSphere Studio Enterprise Developer Options for z/OS if you do not already have the REXX/370 Runtime library installed on the z/OS system.

Contents of the Options for z/OS CD

On the CD, there is a directory for each of the major components that contains the install code and an installation document. Using the installation document, the code can be uploaded to your z/OS system and installed. The installation will be performed using SMP/E, so assistance from your z/OS systems programmers will be necessary. The CD layout and information is as follows:

Table 3. Layout of the Options for z/OS® CD

Major Component	Directory	Installation Document Name
Documentation	Documentation	N/A
IBM WebSphere Developer for zSeries RSE + ICU	wd4z601\H001600	• h001600.pdf
Service for IBM WebSphere Developer for zSeries RSE + ICU	wd4z601\H001600\SERVICE	• h001600.Service.htm
IBM WebSphere Developer for zSeries JES Job Monitor	wd4z601\H002600	• h002600.pdf
Service for IBM WebSphere Developer for zSeries JES Job Monitor	wd4z601\H002600\SERVICE	• h002600.Service.htm
IBM WebSphere Developer for zSeries BIDI Support	wd4z601\HBDI601	• hbdi601.pdf
IBM WebSphere Developer for zSeries Common Access Repository Manager	wd4z601\HCMA601	• hcma601.pdf
IBM WebSphere Studio Enterprise Developer Options for z/0S	wd4z601\HEDS500	• heds500.pdf
Service for WebSphere Studio Enterprise Developer Options for z/OS	wd4z601\HEDS500\SERVICE	• heds500.Service.htm
REXX/370 Alternate Library	wd4z601\HWJ9143	• makealt.readme.txt

Note: If HEDS500, H001600 and H002600 have been previously installed, you do not need to reinstall. However, you need to install some additional fixes. Follow the instructions in service documents.
- heds500.Service.htm
- h001600.Service.htm
- h002600.Service.htm

Notices

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- IBM WebSphere Developer for zSeries Version 6.0.1

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