

Enables you to debug System z applications more productively with a workstation-based interface



WebSphere® software

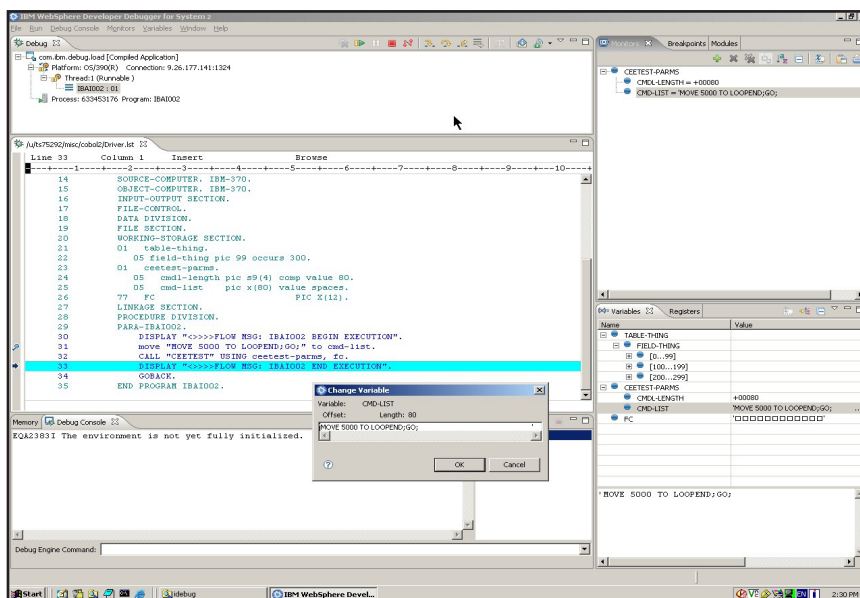
IBM WebSphere Developer Debugger for System z, Version 7.0

Highlights

- Takes advantage of the robust debug function of Debug Tool and Debug Tool Utilities and Advanced Functions with a workstation-based interface
- Enables you to examine, monitor and control the processing of application programs written in many programming languages and numerous implementation environments
- Allows you to interactively debug an application as it runs
- Enables you to perform seamless debugging of mixed-language applications
- Provides the ability to make adjustments to applications while debugging
- Displays programs with color-coded highlighting of syntax
- Allows you to display, monitor and alter program variables

To address your organization's business goals, your IT staff is challenged to deliver function-rich applications quickly. Regardless of whether it was designed to perform routine or critical tasks, the underlying code that drives your applications is probably highly complex. Programmers have to work quickly to meet demand, with minimal errors, even adapting code on the fly as your business needs evolve. To effectively build and service applications, you need robust, easy-to-use tools to compile, test and debug them.

IBM WebSphere® Developer Debugger for System z, Version 7.0 is an affordably priced subset of IBM WebSphere Developer for System z functions that is designed to provide a workstation-based graphical interface to IBM Debug Tool and IBM Debug Tool Utilities and Advanced Functions. This product is specifically designed for IBM System z™ developers who do not require the full-function WebSphere Developer for System z product.



WebSphere Developer Debugger for System z works with Debug Tool and Debug Tool Utilities and Advanced Functions to provide increased productivity for mainframe programmers.

Examine, monitor and control the implementation of System z application programs

WebSphere Developer Debugger for System z, Version 7.0 provides Eclipse technology-based, interactive source-level debugging capabilities that enable you to debug compiled System z applications. Its program debugging, testing and analyzing capabilities also integrate with IBM Debug Tool for z/OS, Version 6.1 and IBM Debug Tool Utilities and Advanced Functions, Version 6.1 to help you examine, monitor and control the processing of application programs written in COBOL, PL/I, C, C++ and Assembler on IBM z/OS® systems.

Debug applications in a variety of environments

WebSphere Developer Debugger for System z enables you to debug applications that run in the following environments:

- IBM CICS®
- IBM IMS™
- IBM DB2®
- IBM WebSphere Application Server
- Time Sharing Option (TSO)
- Job Entry Subsystem (JES) and batch
- UNIX® System Services

New features in this release

With this release, WebSphere Developer Debugger for System z, Version 7.0 includes several new features designed to build on the already comprehensive features in the product.

- *You can now view memory addresses using offsets.*
- *To support internationalized applications, sort orders can now correctly sort accented characters.*
- *Support for Eclipse, Version 3.2 provides a more-responsive, attractive and customizable user interface that increases developer productivity.*

- *Calling and displaying the results of a function is now supported for IBM AIX® application debugging.*
- *Improved error handling is available for connection issues.*

Take advantage of robust debugging functions

WebSphere Developer Debugger for System z provides a robust, easy-to-use workstation-based interface with unique functions provided by Debug Tool or Debug Tool Utilities and Advanced Functions. You can implement a broad range of capabilities needed for debugging applications running remotely.

WebSphere Developer for System z

Bridges traditional mainframe and distributed Web development

- By delivering end-to-end integrated processes running across platforms
- By providing shared developer repositories and tooling framework

Enables deployment to WebSphere Application Server, CICS, IMS, DB2 and batch environments

- By providing cross-platform development
- By delivering a workstation-based development tool
- By offering a workstation-based mainframe application-analysis tool

Enables you to develop service oriented architecture (SOA) composite applications that combine Web services, Web applications and traditional applications

- COBOL, PL/I, Java™, Java 2 Platform, Enterprise Edition (J2EE), Web Service Description Language (WSDL), Javabeans, XML adapters
- Portlets and complex user interfaces
- Service flow modeler for CICS and IBM WebSphere Host Access Transformation Services (HATS)

WebSphere Developer for System z is a full-function tool for traditional and distributed application development. To learn more, visit ibm.com/software/awdtools/devzseries.

Remote debug program processing

WebSphere Developer Debugger for System z displays source code that is accessed from various locations, including the compiled side file. It provides functions to control program processing, such as:

- *Resume processing*
- *Suspend processing*
- *Step into procedures*
- *Step over procedures*

Remote debug breakpoints

WebSphere Developer Debugger for System z provides several different ways of stopping program processing, such as:

- *Set and clear breakpoints at a specific line.*
- *Set and clear breakpoints for an error or warning-level error that is based on IBM Language Environment[®] severities.*
- *Run to a breakpoint.*

Remote debug viewing and manipulation of data items

You can use WebSphere Developer Debugger for System z to observe variable values while programs are running. A range of ways to perform this function are provided, such as:

- *Viewing variable values and changing them as you step through the code.*
- *Viewing variable values in the context of a larger area of storage.*
- *Viewing static fields and constants.*

The product's distributed design enables you to debug programs running remotely on other systems available with TCP/IP access to or from your workstation.

Extensive remote debug functions

With this debugger, you can control the implementation of programs by setting compiled language-specific breakpoints, suspending implementation, stepping through code, and examining and changing the contents of variables. The debugger operates from a component of the Eclipse workbench, and contains views and functionality specific to debugging compiled-language applications. With the Eclipse technology-based views, you can monitor variables, expressions, registers, memory and application modules. Functionality that is geared specifically to debugging compile-language applications includes:

- *Viewing source in the editor.*
- *Choosing from multiple breakpoint types, such as line, entry, address, watch and load.*
- *Specifying exception types at which the debugger should stop program control, such as run, step into and step over a procedure.*
- *Monitoring and updating storage, memory maps, registers, variables and expressions.*

Support for compiled-language debug functionality varies depending on the language, environment and platform on which you are debugging.

Remote-debug conditional watch breakpoint

The watch breakpoint function enables you to specify a condition so that WebSphere Developer Debugger for System z can watch for a particular number of bytes and an expression that can be resolved to an address. You can also add a simple expression (for example, in COBOL Var1=10). WebSphere Developer Debugger for System z stops at the breakpoint only when the condition you've specified is evaluated to be true.

*Remote-debug step and breakpoint
log-message support*

To help you determine the reason control is returned to you during a session, the remote-debug function shows log messages in the command window when control is returned after WebSphere Developer Debugger for System z hits a breakpoint.

**Access to Debug Tool, Version 7.1
and Debug Tool Utilities and Advanced
Functions, Version 7.1 capabilities**

Debug Tool Utilities and Advanced Functions, Version 7.1 is a separate, optional product that builds on the function in Debug Tool, Version 7.1, providing even more debugging capability for z/OS and IBM OS/390® applications. When you purchase Debug Tool Utilities and Advanced Functions, Version 7.1, Debug Tool, Version 7.1 is also included.

**Designed to enable faster debugging
of your applications**

WebSphere Developer Debugger for System z provides an easy-to-use debugging interface that can help you save time in setup and during the development cycle. The familiarity of the WebSphere Developer Debugger for System z interface to developers of composite and Web applications also enables faster debugging by providing access to the variety of information available in multiple views. With WebSphere Developer Debugger for System z, you can take advantage of a robust debugging tool that integrates easily with other System z functions. And as your needs evolve, you can quickly and efficiently upgrade to the composite application-development capabilities of the full-function WebSphere Developer for System z product.

For more information

To learn more about IBM WebSphere Developer Debugger for System z, Version 7.0 or IBM WebSphere Developer for System z, contact your IBM representative or IBM Business Partner, or visit:

[ibm.com/software/awdtools/
debugtool](http://ibm.com/software/awdtools/debugtool)

or

[ibm.com/software/awdtools/
devzseries](http://ibm.com/software/awdtools/devzseries)

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IBM WebSphere Developer Debugger for System z, Version 7.0 at a glance

Hardware requirements

- Processor: Intel® Pentium® III at 800 MHz required; faster recommended
 - RAM: 512 MB required; 1 GB or more recommended
 - Video Graphics Array (VGA) display: 1024x768 minimum
 - Disk space: 100 MB minimum; 200 MB maximum (based on Microsoft® Windows NT® File System [NTFS]), depending on the optional features selected for installation; additional space required for the resources that you develop
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Software requirements

- Operating systems (one of the following)
 - Microsoft Windows® XP Professional with Service Pack (SP) 2 or later
 - Windows 2000 Professional with SP4 or later
 - Windows 2000 Server with SP4 or later
 - Windows 2000 Advanced Server with SP4 or later
 - Microsoft Server 2003 Standard with SP1 or later
 - Microsoft Server 2003 Enterprise with SP1 or later
 - TCP/IP installed and configured
 - Web browsers (one of the following)
 - Microsoft Internet Explorer, Version 6.0 with SP1 or later
 - Firefox, Version 1.5 or 2.0
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Corequisites

- Debug Tool for z/OS, Version 7.1 or later with appropriate program temporary fixes (PTFs) (must be installed on the host to support remote debugging of programs from WebSphere Developer Debugger for System z)
 - Debug Tool Utilities and Advanced Functions for z/OS, Version 7.1 or later with appropriate PTFs (includes Debug Tool for z/OS, Version 7.1) (must be installed on the host to support remote debugging of programs from WebSphere Developer Debugger for System z)
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Notes:

1. Debug Tool Utilities and Advanced Functions for z/OS, Version 7.1 or later with appropriate PTFs is required for assembler support, loading and clearing of specific load modules, describing load module contents, supporting the automonitor feature and displaying the source for a compile unit prior to the application's loading of the load module containing the compile unit and/or prior to the execution of the compile unit for COBOL.
 2. The above corequisite product is required to support specific features of WebSphere Developer Debugger for System z. The workstation client can be successfully installed without this corequisite; however, the stated requisite must be installed and operational at run time for the corresponding feature to work as designed.
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IBM Corporation
Software Group
Route 100
Somers, NY 10589
U.S.A.

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