

Product Brief

Key Benefits

- **Develop and validate quality applications faster:** Correct errors earlier in development, when they're easier to isolate and less expensive to fix.
- **Achieve troubleshooting efficiency:** Find and fix errors in a single debug session to maximize productivity.
- **Quickly increase expert and novice code comprehension:** Visually trace a program execution and step through code to quickly understand program logic.
- **Keep current:** More easily obtain the latest product enhancements through a streamlined installation and maintenance process.

Key Features

- **Graphical user interface based on Visual Studio Code (VS Code):** The Debugger for Mainframe VS Code extension enables a new generation of developers to interactively debug mainframe applications in a modern development environment of their choice.
- **Allocation/JCL conversion facility:** Allow customized test sessions and allocations in foreground or batch, with execution-time overrides.
- **Program statement tracing:** Provide a clear view of the code path used by the current breakpoint.
- **Source code coverage:** Identify untested code and verify test data is adequate.

InterTest™

InterTest Batch, InterTest for CICS

At a Glance

InterTest™ offers powerful debugging capabilities that help developers quickly and easily identify and correct errors in batch and IBM CICS COBOL, Assembler, and PL/I programs, as well as IBM IMS/DC applications and IBM Db2 stored procedures. InterTest facilitates a direct-from-source trace capability. By trapping application errors, it enables users to detect and resolve errors interactively as they occur. The no-recompile-required-before-proceeding capability keeps the user in the test session, maximizing focus on the problem rather than the process, which in turn minimizes outages and expedites the development process.

Business Challenges

IT organizations rely on applications with software assets that span mobile, cloud, Web, and mainframe environments to achieve competitive advantage. Many depend on highly skilled, experienced programmers likely preparing to retire. Having proven, reliable tools that drive quality in developing and maintaining those assets becomes key to retaining and growing business.

Knowledge leads to quality. Testing and debugging is an important phase and can be a time-consuming task for producing quality mainframe applications. The ability to visualize what code is executing allows seasoned and novice developers to be more precise with testing and quicker in pinpointing errors, which naturally leads to more efficient and thorough processes. InterTest taps into this capability and extends it with automated debugging, helping ensure the right code is tested, the right data variables are used, and defects are resolved prior to executing in production.

Solution Overview

InterTest simplifies and speeds application development with automated testing and debugging capabilities that programmers have relied on for years. Developers can work directly from familiar source code to initiate program monitoring, modify main storage, files, and databases, and much more. To promote easy adoption by developers with varying experience levels, InterTest offers two user interface (UI) options: a Visual Studio Code-based UI and a traditional 3270 interface. InterTest also simplifies the complexity of troubleshooting applications, allowing users to correct problems from any location without interrupting testing sessions. The program-path retrace combined with ABEND prevention capabilities facilitates fast, interactive debugging. InterTest helps developers deliver the high quality, reliable code required for maintaining critical business applications.

Key Features (cont.)

- **Common dynamic symbolic support:** Extend troubleshooting capabilities across interrelated products by characterizing program locations symbolically.
- **Synchronized processing:** Confirm the accuracy of the source code version through date/time match for source listing and load module.
- **Extended Interactive debug:** Includes Workload Manager (WLM) DB2-stored procedures and IMS/DC programs.
- **Expanded database support:** Expand program execution interrupt capability to every Db2, IMS, Datacom™/DB and IDMS™/DB database call.

Supported Environments

Visit the [Mainframe Compatibilities](#) page for more information on supported environments, including:

- IBM z/OS
- IBM CICS Transaction Server

Related Products

- **SymDump® Batch:** Fault analysis for batch programs.
- **SymDump for CICS:** Fault analysis for CICS programs.
- **Endevor:** Secure software, track changes, and enable mainframe DevOps.
- **Brightside:** Enterprise-grade open source support offering.

Critical Differentiators

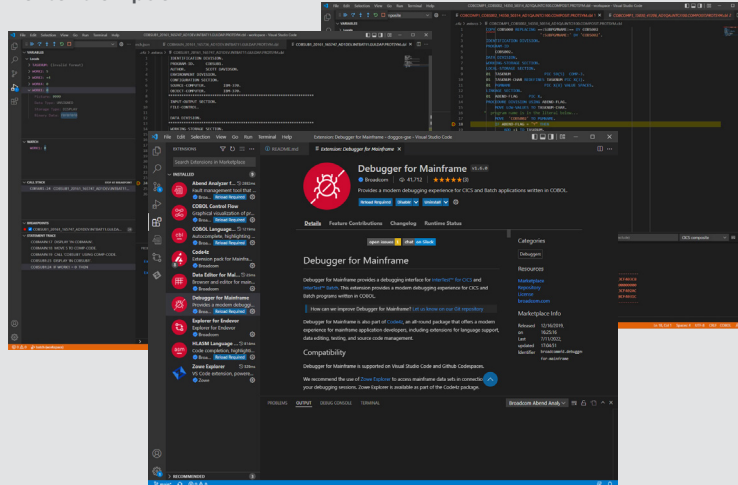
In addition to its comprehensive set of debugging capabilities, InterTest helps developers work more productively and effectively:

- **Integrated testing suite:** InterTest is an integral component of the suite of integrated testing and fault analysis tools, which share a common look and feel that help users easily switch back and forth between CICS and batch debugging or initiate a debugging session when a fault is detected.
- **Integrated application lifecycle:** Tight integration between InterTest, Endevor™, and other testing tools speeds application deployment and helps prevent manual errors.
- **Graphical user interface based on Visual Studio Code:** The UI helps a new generation of developers assume responsibility for mainframe applications while allowing seasoned developers to work more productively.
- **Simplified installation and maintenance:** InterTest is easily acquired, installed, configured, deployed, and maintained using Portable Software Image in IBM z/OS Management Facility, which helps organizations more quickly adopt new releases and apply maintenance.

Code4z

Code4z is an all-in-one VS Code extension pack for mainframe users working with z/OS. Code4z provides language support for COBOL and High Level Assembler for z/OS and graphical visualization of COBOL applications. The pack also includes data editing and file management tools, Explorer for Endevor, and extensions for interactive debugging, macro tracing, andabend analysis.

The Debugger for Mainframe extension for VS Code adds a graphical user interface to InterTest Batch and InterTest CICS. Debugger for Mainframe is part of the Code4z extension pack.



For more information, please visit:

broadcom.com/products/mainframe/application-development