

*Enhancing e-business development through Impact Analysis and Code Extraction of core assets*



# IBM WebSphere Studio Asset Analyzer for Multiplatforms Version 2 Release 1

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## Highlights

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WebSphere Studio Asset Analyzer (5655-I49) provides functions for analysts and developers to understand enterprise assets, enhance them, and begin to connect them to Web-based infrastructures.

WebSphere Studio Asset Analyzer helps you:

- Understand MVS and distributed application assets and their relationships.
- Create and manage a statement of work for a proposed code change.
- Identify the items that the proposed code change affects.
- Make changes to code with more confidence, greater speed, and less risk.
- Identify information about connectors for Web-enabled applications.
- Use analysis information to identify business processes and flows.
- Extract business rules from MVS application artifacts for reuse.
- View asset relationships through graphical representations.
- Understand J2EE applications.

## A strategic view of application asset understanding

You can use WebSphere Studio Asset Analyzer with IBM VisualAge® products, including VisualAge Enterprise Suite (13P0835) and WebSphere Studio Developer tools, to provide easy access to useful information about core assets through a Web browser.

Applications are often an IS organization's greatest asset. Reusing application constructs shortens the application development process by reusing previously tested code, thus requiring less new code.

WebSphere Studio Asset Analyzer is a tool for maintaining and extending existing assets through impact analysis, connector builder assistance, and graphical application understanding. This tool is designed to help enterprise customers on their journey to e-business by providing knowledge about both their static environment (finding and reusing application code and the componentry that connects that code) and their dynamic environment (understanding what code is executing in run-time environments). When you start using WebSphere Studio Asset Analyzer, the first step is to scan the artifacts that you want WebSphere Studio Asset Analyzer to know about. MVS artifacts can include source code (COBOL, PL/I, BMS), JCL, IMS PSBs and DBDs, and region configurations for IMS and CICS®. Scanners for MVS artifacts run on MVS. MVS artifacts can reside in PDS libraries or source code management systems (ChangeMan and SCLM). Support for other S/390 library systems is provided through a user exit.

Distributed artifacts can include J2EE applications (including WAR and EAR files, EJB and EJB JAR files), Java source and bytecode, XML, HTML, JSP files and taglibs, C and C++ source. Scanners for distributed artifacts run on Windows NT or Windows 2000. Distributed artifacts can reside on the file system, in Rational ClearCase, or on an accessible WebDAV server.

## Providing knowledge to the enterprise

After scanning your applications, WebSphere Studio Asset Analyzer stores information about these application artifacts in a database that can be shared by multiple development teams across the enterprise.

As your development teams make application changes through normal maintenance, application information contained in WebSphere Studio Asset Analyzer can be easily refreshed. By using WebSphere Studio Asset Analyzer, you can continue to view the source and information about the application, even though the source code is stored in multiple locations.

## Easy access to knowledge about core e-business assets

WebSphere Studio Asset Analyzer delivers the following kinds of knowledge:

- Application knowledge from rapid understanding of application componentry and construction, plus a high-level view or blueprint of an application
- Business knowledge from understanding of business and processing

flows through drilling down into applications

- Change knowledge from identification of areas of the application that will change based on the requirements, right down to the line of code including where all data items and indirect data items are used
- Data knowledge from databases and files that make up the application, plus data flows that provide a logical connection between programs, between processes, and between applications
- e-business knowledge from ratings of program modules for their usefulness as connectors, plus prebuilt connectors and generated data definitions that can be imported into WebSphere Studio Developer tools

### Gaining application and business knowledge

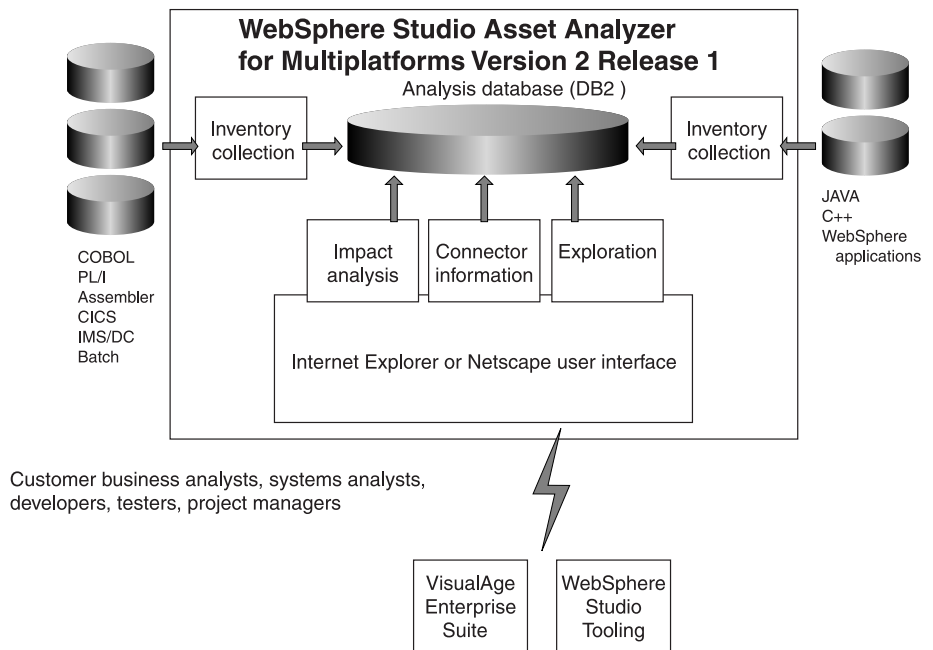
You can explore the information in the database by MVS or distributed assets. This navigation helps you define the scope of the search so that you can drill down to examine the contents at each level. For example, a search by MVS assets lets you choose an MVS asset to explore from a list of the assets that you have identified in the database.

You can also search the database for specific words and phrases to find specific data elements. For example, a search on the word "Balance" will give you a list of all the data elements in the database that contain "Balance". You can use WebSphere Studio Asset Analyzer to find specific data elements that make up a business process flow.

### Planning and change knowledge

How will a proposed code change affect your enterprise information system? WebSphere Studio Asset Analyzer helps find the source code that is affected by a proposed change in your application and provides you with tools to help you better assess the scope of the change.

You can use this impact analysis information to more effectively plan, size, and schedule changes. You can



even use it to help trace the effects of changes as they are made. The impact analysis capability of WebSphere Studio Asset Analyzer allows you to quickly see the potential effects of changes before they are implemented, making it easier to:

- Reduce the risks associated with making a code change and minimizing the potential for overlooking a needed change.
- Ensure thorough coverage of your impact analysis of a proposed code change.
- Make changes accurately with a better understanding of the underlying issues across the entire application.

### Creating connector information as part of e-business knowledge

You can connect to working z/OS™ or OS/390® processes with Internet or Web processes through application connectors. Connectors give you physical access to the function and data sets of your enterprise information system and help you reuse these resources for developing Web-based applications.

WebSphere Studio Asset Analyzer provides automated assistance to help

you build e-business connectors. Several connector-building tools, such as WebSphere Studio Developer tools products, can import the connector information that WebSphere Studio Asset Analyzer generates to begin connecting your application transactions to the Web.

### Identifying existing programs for rapid reuse in e-business applications

All of your current programs contain components that have potential value for reuse in e-business applications. How do you determine the magnitude of the work required to reuse a program, or the components within a program, in an e-business application? WebSphere Studio Asset Analyzer helps you solve this problem by assigning an e-business rating to your existing programs. Derived from program characteristics such as the number of screen I/O statements, external flow control statements, and data I/O statements, the e-business rating indicates the extent of change required to help you determine which programs are good candidates for reuse in Web applications based on the number and type of changes required.

## Extracting code for reuse in e-business applications

You can identify a segment of code within a COBOL program that you want to reuse in e-business applications and select that code segment for extraction. WebSphere Studio Asset Analyzer then generates a program (including the required data structures) of the segment of code that you selected. When possible, a complement program is also constructed to invoke the newly generated program.

## Putting knowledge to work

Using this tool will help you understand your core business applications and extend these applications into the world of e-business. Ultimately, the goal of planning and understanding is to move into the change process efficiently while minimizing the risk to your current business operations. Tools available in VisualAge Enterprise Suite or WebSphere Studio Enterprise Developer can be used to speed the change process by providing an application development workbench for z/OS and Web developers. WebSphere Studio Asset Analyzer helps you manage the changes required to create and enhance your current application assets to support e-business requirements.

## Prerequisites

The following software must be installed:

*On the host:*

- One of the following:
  - IBM z/OS Version 1 Release 1 (5694-A01) or later
  - IBM OS/390 Version 2 Release 10 (5647-A01) or later
- DB2® for OS/390 Version 6 (5645-DB2) or later
- DB2 Text Extender for OS/390 Version 6 if you plan to use the distributed assets support in WebSphere Studio Asset Analyzer
- WebSphere Application Server Version 3 Release 5 (5655-A98) at service level 16 (PTF UQ58000) or later and Java upgrade (PTF UQ58208)

- IMS Library Management Utilities Version 1 (5655-E04) or later, if you plan to use the IMS support in WebSphere Studio Asset Analyzer

*On the end-user workstation:*

- One of the following operating systems:
  - Windows 2000 Professional
  - Windows NT Version 4 (SP4 or later required)
- One of the following Web browsers:
  - Microsoft Internet Explorer 5.5 or later
  - Netscape Navigator for Windows 4.75 or later (Netscape 6 is not recommended)

*On the workstation for distributed assets support:*

- One of the following operating systems:
  - Windows 2000 Professional
  - Windows NT Version 4 (SP4 or later required)
- WebSphere Application Server Standard Edition Version 3 Release 5 or later
- IBM DB2 Universal Database Windows Runtime Client Version 6
- IBM DB2 Text Extender Windows Runtime Client Version 6
- Java Runtime Environment (JRE) Version 1 Release 2.2 or later

## For more information

See your client representative or call IBM DIRECT at 1-800-IBM-CALL. For nontechnical information, visit [www.ibm.com/software/ad/wsaa](http://www.ibm.com/software/ad/wsaa). For additional technical information about the product and about VisualAge Services for the product, see the IBM Enterprise Developer Domain at [www.ibm.com/software/ad/enterprise](http://www.ibm.com/software/ad/enterprise).



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