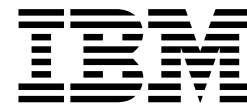




Getting Started

IBM Asset Transformation Workbench
v1.1



Getting Started

Note:

Before using this information and the product it supports, read the information in “Notices.”

First Edition (February 2005)

This edition applies to IBM Asset Transformation Workbench (product number 5724-L54) and to all subsequent releases and modifications until otherwise indicated in new editions.

For the latest information about this product, please refer to the Release Notes.

No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of IBM. Information in this document is subject to change without notice and is not guaranteed to be error-free.

You can order publications through your IBM representative or the IBM branch office serving your locality. When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

Licensed Materials - Property of IBM.

Product Reference: IBM Asset Transformation Workbench v1.1

Document Reference: REL7.3.07.DOC01.A

© 2005 Copyright International Business Machines Corporation. All rights reserved.

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

© 2004, 2005 Relativity Technologies, Inc. All rights reserved.

RescueWare is a registered trademark of Relativity Technologies, Inc. All other brands mentioned in this document are trademarks or registered trademarks of their respective holders.

Contents

Preface

<i>Audience</i>	ix
<i>Organization</i>	x
<i>Conventions</i>	x
<i>Related Manuals</i>	xi
<i>Online Help</i>xii

1 Introducing the Asset Transformation Workbench

<i>ATW Products</i>	1-2
<i>Application Analyzer</i>	1-2
<i>Application Profiler</i>	1-2
<i>Application Architect</i>	1-3
<i>Business Rule Manager</i>	1-3
<i>ATW Process</i>	1-4
<i>Repositories, Entities, and Relationships</i>	1-6
<i>Workspaces and Projects</i>	1-6
<i>Supported Legacy Languages</i>	1-7
<i>What's Next?</i>	1-7

2 Installing and Configuring ATW

<i>Hardware and Software Requirements</i>	2-2
<i>Contents of Installation CD</i>	2-2
<i>Running the Installation Program</i>	2-3
<i>Configuring ATW</i>	2-9
<i>Migrating Workspaces</i>	2-10
<i>What's Next?</i>	2-10

3 Asset Transformation Workbench Basics

<i>Starting ATW</i>	3-1
<i>Using the ATW Main Window</i>	3-5
<i>Menus</i>	3-6
<i>Tool Bars</i>	3-8
<i>Repository Pane</i>	3-8
<i>Object Information</i>	3-15
<i>Activity Log</i>	3-15
<i>Editor</i>	3-17
<i>Creating a To Do List</i>	3-19
<i>Viewing Object Properties</i>	3-21
<i>Closing and Resizing Panes</i>	3-21
<i>Using Tool Windows</i>	3-22
<i>Resizing Panes</i>	3-22
<i>Moving Panes</i>	3-23
<i>Closing Panes</i>	3-23
<i>Setting Options</i>	3-24
<i>Exporting Diagrams and Reports</i>	3-26
<i>Using the Guide for a Tool</i>	3-28
<i>What's Next?</i>	3-28

A Installing and Using the WSAA Bridge

<i>Understanding the WSAA Bridge</i>	A-1
<i>Hardware and Software Requirements</i>	A-3
<i>Contents of Installation CD</i>	A-3
<i>Running the Client Installation Program</i>	A-4
<i>Running the Server Installation Program</i>	A-11

<i>Starting the Client and Server</i>	A-14
<i>Importing WSAA Projects</i>	A-15
<i>Configuring WSAA Webservices</i>	A-15
<i>Requesting an Import</i>	A-17

Glossary

Bibliography

Notices

Index

Preface

The IBM Asset Transformation Workbench (ATW) is a suite of PC-based software products for analyzing, re-architecting, and transforming legacy applications. The products are deployed in an integrated environment with access to a common repository of program objects. Repository models serve as the basis for a rich set of diagrams, reports, and other documentation.

The ATW suite consists of customizable modules that together address the needs of organizations at every stage of legacy application evolution — maintenance/enhancement, renovation, and modernization.

Audience

This guide assumes that you are a corporate Information Technology (IT) professional with a working knowledge of the legacy platforms you are using the product to analyze. If you are transforming a legacy application, you should also have a working knowledge of the target platform.

Organization

This guide contains the following chapters:

- Chapter 1, “Introducing the Asset Transformation Workbench,” describes the ATW tools, process, basic concepts, and supported legacy languages.
- Chapter 2, “Installing and Configuring ATW,” describes hardware and software requirements for ATW, and how to install and configure the workbench.
- Chapter 3, “Asset Transformation Workbench Basics,” describes how to start ATW, create workspaces and projects, add files to a workspace, use workbench windows, and set workbench options.
- Appendix A, “Installing and Using the WSAA Bridge,” describes how to install the WSAA bridge and how to use it to distribute the source files in a WSAA project to PCs running ATW.
- The Glossary defines the names, acronyms, and special terminology used in this guide.

Conventions

This guide uses the following typographic conventions:

- **Bold type** — Indicates a specific area within the graphical user interface, such as a button on a screen, a window name, or a command or function.
- *Italic type* — Indicates a new term. Also indicates a document title. Occasionally, italic type is used for emphasis.
- `Monospace type` — Indicates computer programming code.
- **Bold monospace type** — Indicates input you type on the computer keyboard.
- **1A/1B, 2A/2B** — In task descriptions, indicates mutually exclusive steps: perform step A or step B, but not both.

Related Manuals

This document is part of a complete set of ATW manuals. Together they provide all the information you need to get the most out of the system.

- *Preparing Projects* describes how to set up ATW projects. This guide describes how to load applications in the repository and how to use reports and other tools to ensure that the entire application is available for analysis.
- *Analyzing Projects* describes how to analyze applications at the project level. This guide describes how to create diagrams of applications and how to perform impact analysis across applications. It also describes how to estimate project complexity and effort, and how to create a project dictionary.
- *Analyzing Programs* describes how to analyze applications at the program level. This guide describes how to use HyperView tools to view programs interactively and perform program analysis in stages. It also describes how to analyze procedure and data flows, search the repository, and extract business rules with HyperView.
- *Profiling Projects* describes how to create and browse Web-generated views of the repositories in your organization.
- *Creating Components* describes how to extract program components from a legacy application.
- *Parser Reference Manual* describes legacy constructions supported by Application Analyzer in reference format.
- *Architecture Reference Manual* describes legacy constructions supported by Application Architect in reference format.

Online Help

In addition to the manuals provided with the system, you can learn about the product using the integrated online help. All GUI-based tools include a standard Windows **Help** menu.

You can display:

- The entire help system, with table of contents, index, and search tool, by selecting **Help: Help Topics**.
- Help about a particular ATW window by clicking the window and pressing the **F1** key.

Many ATW tools have *guides* that you can use to get started quickly in the tool. The guides are help-like systems with hyperlinks that you can use to access functions otherwise available only in menus and other program controls.

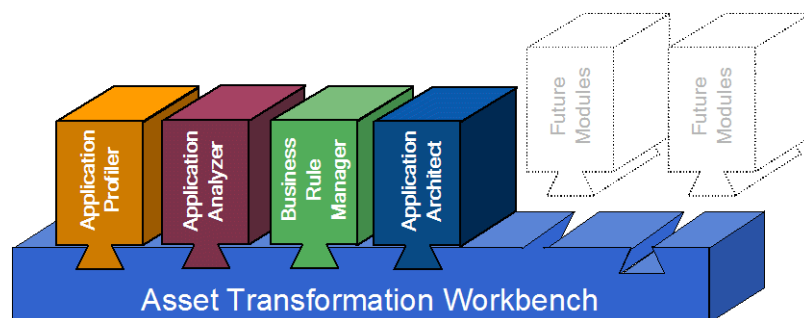
To open the guide for a tool, choose **Guide** from the **View** menu. Use the table of contents in the **Page** drop-down to navigate quickly to a topic.

Introducing the Asset Transformation Workbench



The IBM Asset Transformation Workbench (ATW) is a suite of PC-based software products for analyzing, re-architecting, and transforming legacy applications (Figure 1-1). The products are deployed in an integrated environment with access to a common repository of program objects. Repository models serve as the basis for a rich set of diagrams, reports, and other documentation.

Figure 1-1 *Asset Transformation Workbench (ATW)*



ATW Products

The ATW suite consists of customizable modules that together address the needs of organizations at every stage of legacy application evolution — maintenance/enhancement, renovation, and modernization. Each module is separately licensed.

Application Analyzer

Application Analyzer is a robust set of non-invasive interactive tools that work with source code, system files, DDL, screen maps, and more. Use it for analyzing and documenting legacy systems at both the application and program levels.

Use Application Analyzer at the application level to:

- Create diagrams of applications.
- Perform impact analysis across applications.
- Estimate application complexity and effort.

Use Application Analyzer at the program level to:

- View programs interactively.
- Perform program analysis in stages.
- Perform impact analysis on a program.
- Model and search the repository.

Application Profiler

Application Profiler provides a set of views, or *profiles*, of the application, based on the object models created in the previous analysis phase.

- *WebGen* generates HTML views of the repositories on your workstation. You can publish the views to Profiler, where they can be accessed by any member of your organization with a browser.
- *Profiler* is a Web server-based tool that offers company-wide access to any repository in your organization. It gives managers, business analysts, testers, and customer support personnel convenient, browser-based access to analyzed legacy code.

Application Architect

Application Architect uses advanced algorithms to partition code into new [components](#) and perform [Dead Code Elimination](#).

- *Structure-based componentization* modularizes legacy programs by replacing a range of inline code with a call to a reusable component. Application Architect examines the dependencies that are required to make the callable routine complete.
- *Computation-based componentization* creates a functionally complete program that contains all the logic necessary to calculate the value of a particular variable — ensuring consistency and improving maintainability by providing reusable routines for calculations that might be needed in different parts of the application.
- *Domain-based componentization* creates a new specialized program based on the values of one or more variables. A program that reads a file of payments and invokes specialized processing based on a “payment type” variable held on each input record, for example, could be specialized on the value of `PAYMENT-TYPE = "CHECK"`. A functionally complete program would be created to process only CHECK payments.

Business Rule Manager

Business rules encapsulate your application’s business logic, making the application easier to understand, document, maintain, and test. And if you decide to modernize the application, they help ensure that all of its business logic gets implemented.

A business rule is a named container that identifies and documents code segments according to their business function. A business rule named Calculate Date Difference, for example, might consist of this segment:

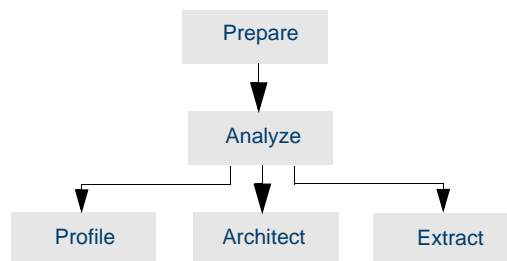
```
COMPUTE WS-DATE-VARIANCE =  
WS-C-CARD-DATE-CCYYMM - WS-TODAYS-DATE-CCYYMM.
```

Business Rule Manager lets you generate business rules from code segments extracted manually from source or autodetected. Automated documentation and a complete set of reports make it easy to develop the kind of detailed specification you’ll need before redeveloping a legacy application in a modern programming language.

ATW Process

Figure 1-2 shows the ATW process. Each stage in the process has a corresponding menu in the ATW window. (Of course, you will only see a menu if you have purchased the product it gives access to.) Let's take a brief look at each of the stages.

Figure 1-2 ATW Process



Prepare

Before you can analyze a legacy application, you need to *prepare* it. Preparing an application consists of loading, or *registering*, the application in the repository, and then *verifying* that the entire application can be understood by the ATW parser. You use reports and other tools to ensure that your application can be parsed in its entirety.

Relaxed Parsing

The *relaxed parsing* option lets you verify a source file despite errors. Ordinarily, the parser stops at a statement when it encounters an error. Relaxed parsing tells the parser to continue to the next statement.

The database the relaxed parser generates lets you resolve undefined variables in missing copybooks and identify incorrect or unsupported statements. Once you have fixed these problems, you should be able to verify the file with the regular parser.

Analyze

Application analysis is the basis for all of the remaining stages in the process. You analyze legacy systems at the application or program level.

- Use the application analysis tools to create diagrams of applications and perform impact analysis across applications. Other application analysis tools let you estimate project complexity and effort, and create application dictionaries.
- Use the program analysis tools — collectively called *HyperView* — to view programs interactively and perform program analysis in stages. You can also use HyperView to analyze procedure and data flows, extract business rules, and create logical components.

More On HyperView

HyperView tools are available within the application analysis tools as well, but “silently” — that is, without your ever actually invoking them as HyperView tools.

Profile

Profiles are HTML views into a repository that show all of the analysis you have done on an application. Profiles are convenient ways to share information about legacy applications across your organization.

Architect

A structured architecture reduces complexity and eases modernization. In this stage, you partition a legacy application into new components. It’s a good idea to perform some re-architecting activity — dead code elimination, for example — before undertaking transformation.

Extract

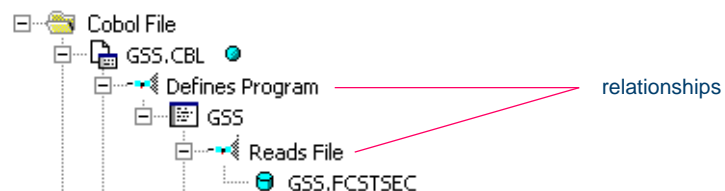
Business rule extraction distills business logic from complex code for documentation, gap analysis, application redevelopment, test planning, and other management tasks.

Repositories, Entities, and Relationships

The repository on your machine contains the model of your legacy application created by the ATW tools. A repository is a database of model objects, or *entities*.

The *relationships* between entities describe the ways in which the elements of your application interact. In Figure 1-3, the source file GSS.CBL *defines* the GSS program. The program, in turn, *reads* the data file GSS.FCSTSEC.

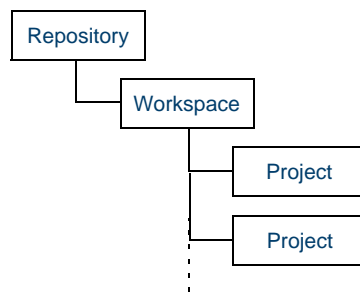
Figure 1-3 *Entities and Relationships*



Workspaces and Projects

A *workspace* is a named container for an application or a portion of an application. You can divide a workspace up into *projects* that represent different parts of the application (Figure 1-4). You might have a project for the batch portion of your application and another project for the on-line portion, for example. You can also use a project to collect items for discrete tasks — all the source files affected by a change request, for example.

Figure 1-4 *Repositories, Workspaces, and Projects*



When you create a workspace in ATW, the system creates a repository for the workspace and a default project with the same name as the workspace. You can create new projects and move or copy entities between projects as needed.

Supported Legacy Languages

ATW tools work with legacy applications written in Cobol, PL/I, Natural, and other programming languages. Your license determines which languages your installation supports. For detailed information on supported languages, dialects, and versions, see the *ATW Release Notes*.

What's Next?

Those are all of the basic concepts underlying the ATW scheme. Now let's look at how you install the workbench and get it running.

1-8 Introducing the Asset Transformation Workbench
What's Next?

Installing and Configuring ATW



This chapter describes how to install and configure ATW. It lists the minimum hardware and software requirements for ATW installations and describes the contents of the installation CD. It then shows you how to run the installation and configure the workbench for the programming languages, legacy dialects, character sets, and tools in use at your site.

Check Read Me File

Be sure to check the ATW Read Me file for late-breaking information that may affect the successful installation of the software. You can find the Read Me on the installation CD. You can also view the Read Me after installation by clicking **Programs:IBM:ATW Documentation:Read Me** in the Windows **Start** menu.

Hardware and Software Requirements

Table 2-1 lists the hardware, disk space, operating system, and software requirements for ATW installations. Hardware requirements may vary depending on the size of the application you are analyzing.

Table 2-1 *Hardware and Software Requirements*

	Intel-compatible PC
Operating System	Windows 2000 (U.S. English), with MS Service Pack 4+ Windows XP (U.S. English), with MS Service Pack 1 Windows 2000 (Japanese), with MS Service Pack 4+
Web Browser	Internet Explorer 5.01 or higher
Processor/CPU	2 GHz or higher
Memory	1 GB minimum 2 GB recommended 1 GB to 3 GB swap space
Disk Space for Workbench	200 MB
Disk Space for Application Files	30x size of original source

Contents of Installation CD

ATW software ships on a single CD. The CD autoruns the ATW installation program.

Note: Make sure the autorun feature is active for your CD drive. Check your operating system documentation for information on the autorun feature.

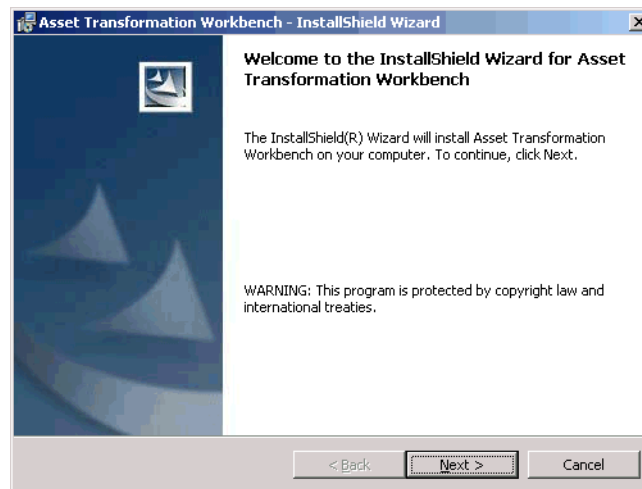
Running the Installation Program

Before running the installation program, make sure you have administrative permissions for the machine on which you are installing the workbench. If you do not have administrative permissions, the installation program will not let you continue.

To install ATW:

- 1 Insert the CD into your CD-ROM drive. The CD autoruns, and the Welcome screen opens (Figure 2-1). If autorun does not start, double-click the `setup.exe` program in the CD installation folder.

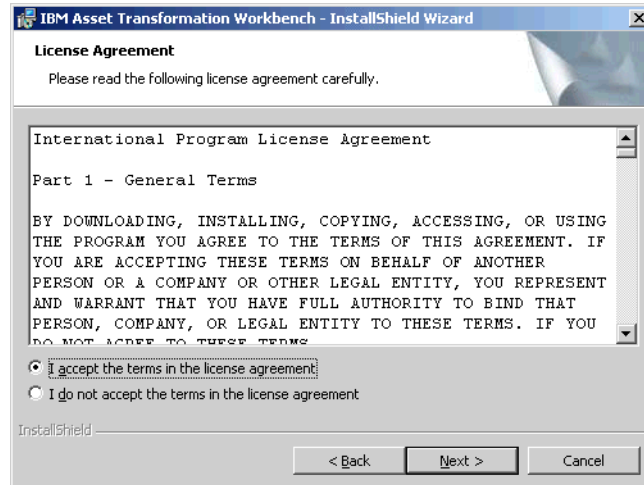
Figure 2-1 *Welcome Screen*



- 2 Click **Next** to continue. The License Agreement screen opens (Figure 2-2 on page 2-4).

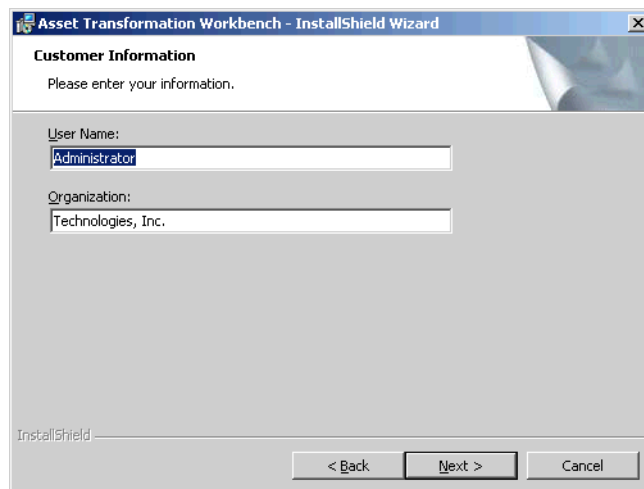
2-4 Installing and Configuring ATW
Running the Installation Program

Figure 2-2 *License Agreement Screen*



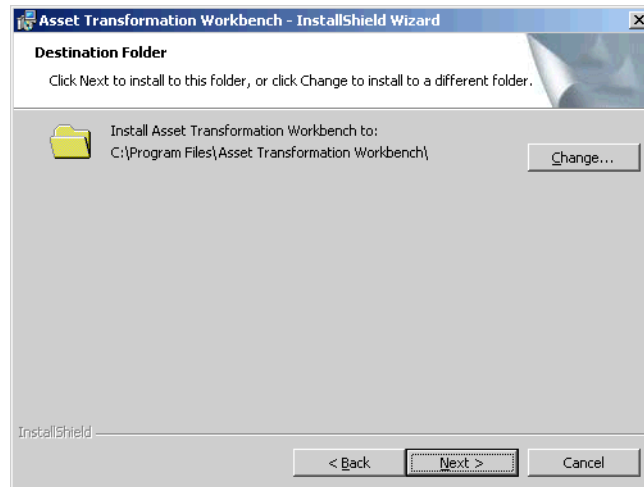
- 3 Read the License Agreement carefully. Click **I accept the terms in the license agreement** to accept its terms, then click **Next** to continue.
- 4 The Customer Information screen opens (Figure 2-3).

Figure 2-3 *Customer Information Screen*



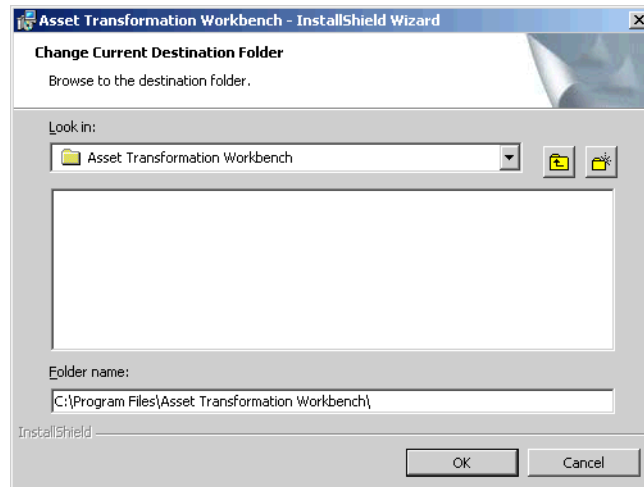
- 5 The **User Name** and **Organization** fields are prefilled with your user name and company. These fields determine the user name and company that appear on your license. Modify the entries if necessary. Click **Next** to continue. The Destination Folder screen opens (Figure 2-4).

Figure 2-4 Destination Folder Screen



- 6 Choose an installation folder for ATW. Figure 2-4 shows the screen prefilled with the default C:\Program Files\Asset Transformation Workbench. To accept the prefilled value, click **Next**. To specify a different folder, click **Change**. The Change Current Destination Folder screen opens (Figure 2-5 on page 2-6).

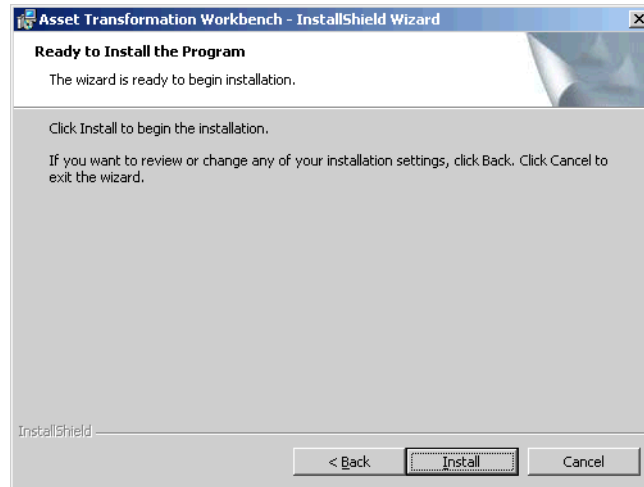
Figure 2-5 *Change Current Destination Folder Screen*



CAUTION: It is strongly recommended that you not install the workbench in a folder with a name that contains escape control characters.

Navigate the folder structure to find a suitable location. Edit the path if necessary. If the destination folder does not exist, the installation creates it. Click **OK** to exit the Change Current Destination Folder screen and return to the Destination Folder screen. Click **Next** in the Destination Folder screen to continue. The Ready to Install the Program screen opens (Figure 2-6 on page 2-7).

Figure 2-6 *Ready to Install the Program Screen*



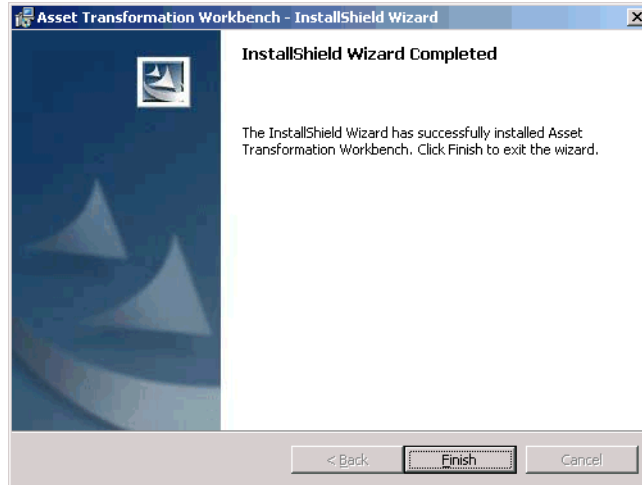
- 7 Click **Install** to begin transferring files to your PC. A progress meter indicates the progress of the transfer.

Note: To make changes to the settings, click **Back** repeatedly until you find the information you are looking for, make your changes, then click **Next** until you return to the Ready to Install the Program screen.

- 8 When the transfer is complete, the Setup Complete screen opens (Figure 2-7 on page 2-8).

2-8 Installing and Configuring ATW
Running the Installation Program

Figure 2-7 *Setup Complete Screen*



- 9 Click **Finish**. The ATW Configuration Manager opens. Follow the steps in [“Configuring ATW” on page 2-9](#).

Configuring ATW

Use the Configuration Manager in the ATW Administration tool to configure your workbench for the products, tools, programming languages, dialects, and character sets in use at your site.

If you configure your workbench for Cobol, for example, you will see only the workbench options and displays appropriate for Cobol modernization. If it turns out that you need to configure your workbench for PL/I as well, you can always come back to the Configuration Manager and select PL/I in addition to Cobol.

To configure ATW:

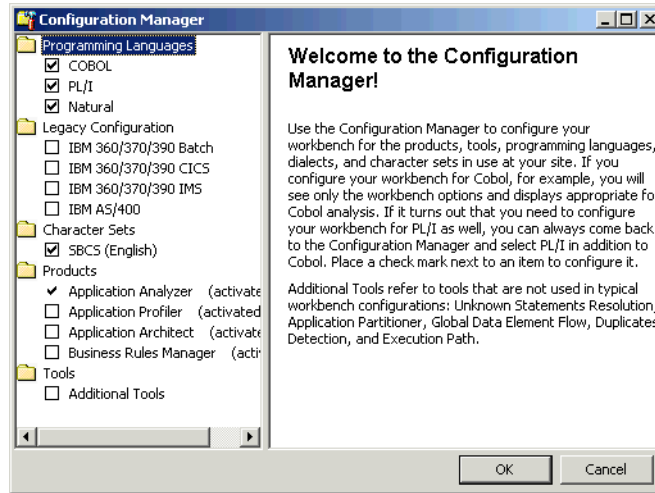
- 1A** If you are installing ATW, click **Finish** in the Setup Complete screen (Figure 2-7 on page 2-8). The Configuration Manager window opens (Figure 2-8 on page 2-10).
- 1B** If you have previously installed ATW and want to reconfigure it, choose **IBM**, then **Asset Transformation Workbench Administration** in the Programs folder on the Windows **Start** menu. The Administration tool opens. In the **Administer** menu, choose **Configure Workbench**.

You are prompted to exit ATW. Click **OK**, then close ATW if necessary. The Configuration Manager window opens (Figure 2-8 on page 2-10).

- 2** Select each workbench product, programming language, dialect, and character set currently in use at your site. The core Application Analyzer product is always selected. Select **Additional Tools** to enable tools not used in typical workbench configurations.
- 3** Click **OK**. You are notified that the Configuration Manager has set up your configuration packages successfully. Click **OK** to return to the Administration tool window.

2-10 Installing and Configuring ATW *Migrating Workspaces*

Figure 2-8 *ATW Configuration Manager Window*



Migrating Workspaces

If you have created workspaces in a previous release of ATW, the system prompts you to upgrade the workspaces to the new release — *migrate* the workspaces — when you open them for the first time. You must re-verify a workspace after migrating it.

What's Next?

You have successfully installed and configured ATW on your PC. Now let's start the workbench and take a quick tour of basic workbench features.

Asset Transformation Workbench Basics



Now that you have installed Asset Transformation Workbench, you are ready to start using the workbench tools to analyze legacy applications. This chapter looks at some elementary ATW tasks: how to start the workbench, create a workspace and project, use workbench windows, set options, and export system diagrams and reports.

Copy Legacy Files to an Accessible Location

Before registering your legacy application in ATW, make sure you have copied legacy files to a location accessible to your PC.

Starting ATW

When you start ATW for the first time after installing it on your PC, you are prompted to create a new workspace or open an existing workspace. A workspace is a named container for an application or portion of an application. The projects in a workspace represent different parts of the

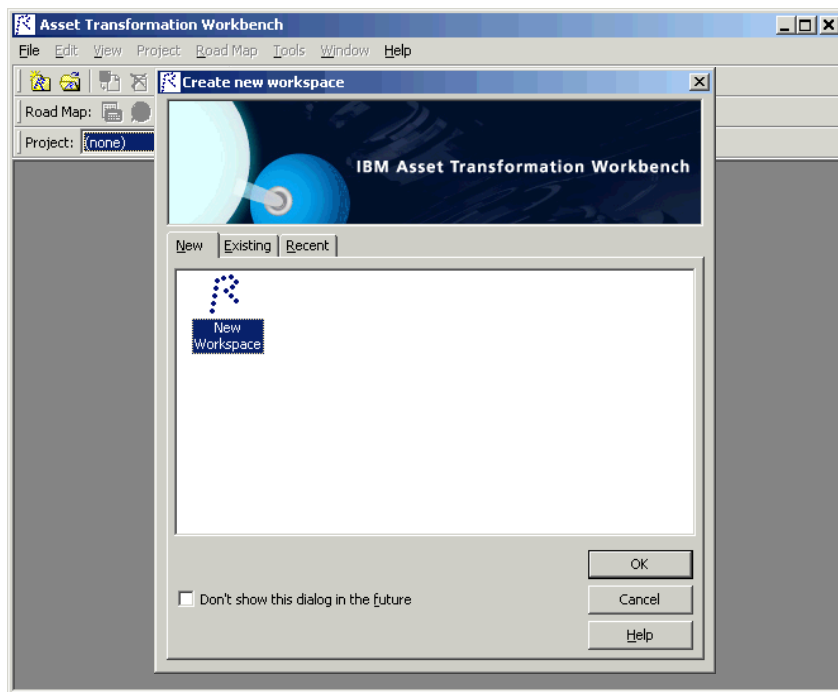
application. When you create a workspace in ATW, the system creates a default project with the same name as the workspace.

Note: The following section describes a streamlined procedure for creating a workspace that is appropriate for most installations. You can find detailed information on workspace setup in *Preparing Projects*. For information on startup options, see [“To set workbench startup options:” on page 3-24](#).

To start ATW:

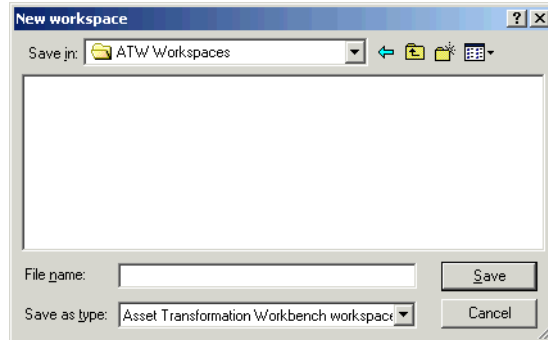
- 1 In the Windows **Start** menu, go to the **Programs** folder. Choose **IBM**, then **Asset Transformation Workbench**. The Create new workspace dialog opens above the main ATW window (Figure 3-1).

Figure 3-1 Create New Workspace Dialog



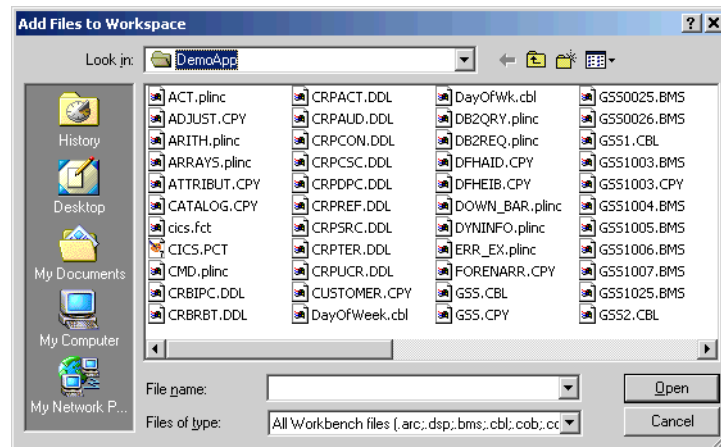
- 2 To create a new workspace, double-click the **New** icon or select it and click **OK**. The New Workspace dialog opens (Figure 3-2).

Figure 3-2 *New Workspace Dialog*



- 3 In the **Save in** drop-down, choose the folder to save the new workspace in. In the **File name** field, enter the name of the new workspace. Choose a name that describes the legacy application as closely as possible. Click **Save**. The Add Files to Workspace dialog opens (Figure 3-3).

Figure 3-3 *Add Files to Workspace Dialog*

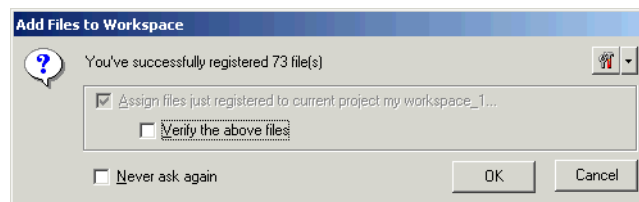


- 4 In the **Look in** drop-down, choose the folder that contains the legacy application files to add to the workspace. In the list of files in the

center of the dialog, choose the files you want to add to the workspace. You can restrict the list of files to a certain type by choosing the type in the **Files of type** drop-down.

- Tip:** To add a range of listed files to the workspace, hold down the Shift key, click the first item in the range, then click the last item in the range. To add selected files, hold down the Control key, then click each file you want to add.
- 5 Click **Open** to add the files to the workspace. You are notified that you have registered the files successfully and are prompted to verify the files (Figure 3-4).

Figure 3-4 Success Dialog



- 6 Select **Verify the above files** in the dialog and click **OK**. The system verifies the files. When verification is complete, the ATW window is populated with the verification results (Figure 3-5 on page 3-5).

What File Outputs Can You Expect?

Now look in the destination folder you specified in [step 3 on page 3-3](#). There you will see that the system created a workspace file and a folder with the same name.

The workspace file has a .rwp extension. You can double-click the icon for the file to open it in the workbench. The `\Workspace\Sources` subfolder contains copies of the legacy application files you added to the workspace, organized by file type.

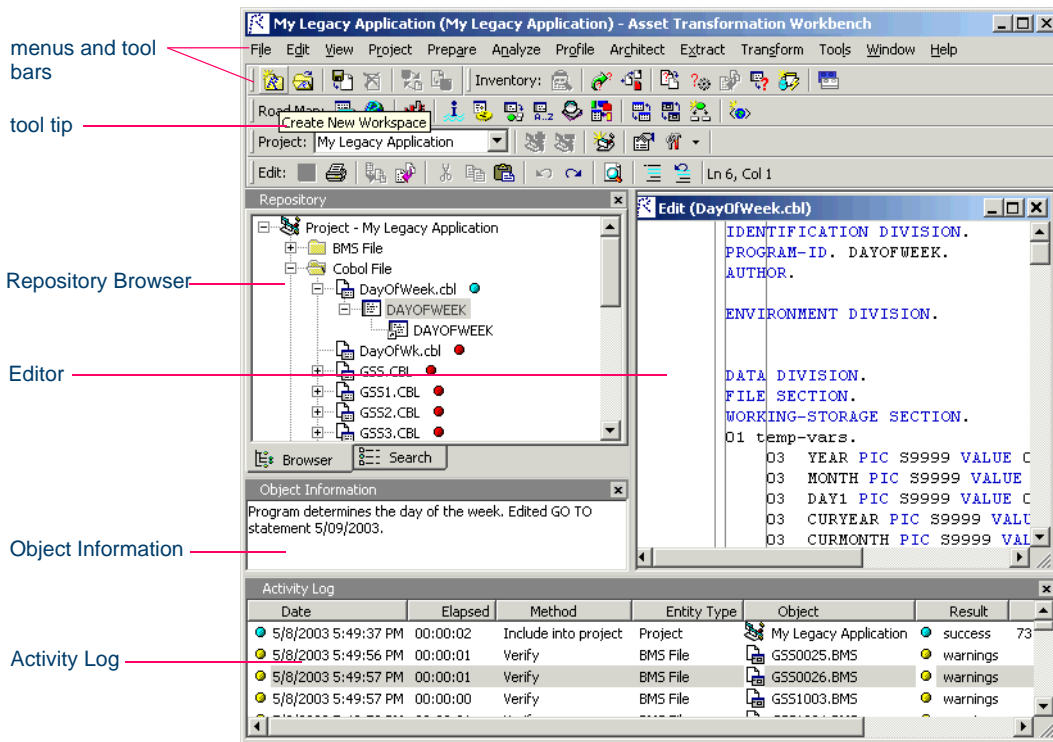
Using the ATW Main Window

The ATW main window lets you view and edit projects, set workbench options, and open workbench tools. The window's state — size, location, menu selections, and option settings — is saved across sessions. Menu selections for the panes in the window are available only if the pane has the focus.

Figure 3-5 shows the ATW main window in a typical configuration. This section takes a closer look at the items labeled in the figure.

Tip: Most workbench menu choices have equivalent choices in the right-click menu or equivalent option settings (see [“Setting Options”](#) on page 3-24).

Figure 3-5 ATW Main Window



Menus

ATW menus let you access workbench tools and other workbench functionality. Menus are displayed only for the products you have enabled (see “[Configuring ATW](#)” on page 2-9). Table 3-1 shows the relationship between menus and products.

Table 3-1 *Products and Menus*

Product	Menu
Application Analyzer	Analyze
Application Profiler	Profile
Application Architect	Architect
Business Rule Manager	Extract

Note: The screens shown in the ATW document set display the menu bar with all products installed.

Customizing Menus

ATW-specific menus are fully customizable. You control which menus, choices, and tool bars the system displays. You can save a menu bar configuration and restore it with a single mouse click.

Note: You cannot customize the Windows standard menus — **File**, **Edit**, **View**, and so forth.

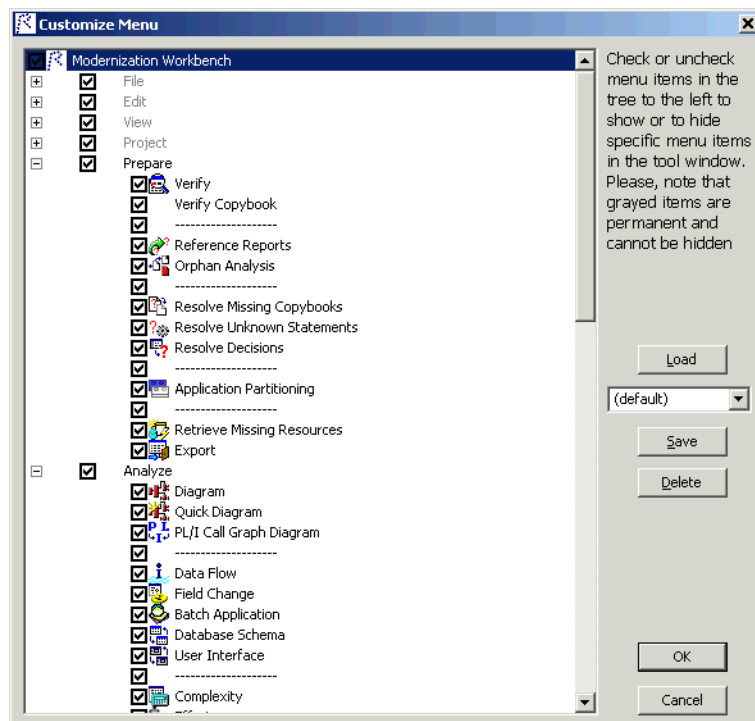
To customize ATW menus:

- 1 In the **Tools** menu, choose **Customize Menu**. You are prompted to close the Editor pane. Click **OK**. The Customize Menu window opens (Figure 3-6 on page 3-7).
- 2 In the Customize Menu window, deselect the menus and/or menu choices you want to hide. Select the menus and/or choices you want to show.

- 3 Enter a name for the specified menu configuration in the drop-down list below the **Load** button.
- 4A Click **Save** if you want to save the configuration without dismissing the window.
- 4B Click **OK** if you want to save the configuration and dismiss the window. The new configuration is applied in the ATW main window.

Note: To restore a menu configuration, select its name in the drop-down list and click **Load**. To restore the default configuration, select (default) in the drop-down list and click **Load**.

Figure 3-6 *Customize Menu Window*



Tool Bars

You can also access an ATW menu function by clicking its tool bar icon. The tool tip for an icon tells you what it does. Place your cursor over the icon for a moment. The tool tip will display.

The workbench has tool bars for the **File**, **Edit**, and **Project** menus, as well as the menus listed in Table 3-1 on page 3-6. A tool bar is displayed only if its corresponding menu is displayed (see [“Customizing Menus” on page 3-6](#)). You can change the position of a tool bar by grabbing the delimiter at the left of the tool bar and dragging it to a new location (Figure 3-7).

Figure 3-7 Changing the Position of a Tool Bar



Repository Pane

The Repository pane displays the contents of the current workspace. Double-click a file to display its source code in the Editor. Place your cursor over an object for a moment to display a tool tip that describes the object in more detail.

Unverified and Verified Workspaces

If you have not verified a workspace file, the file is displayed in **bold** type. Since the system has not generated an object model of the file's contents, only the file itself is displayed.

A verified file shows all the objects in the model generated for the file. Verification results are denoted as follows:




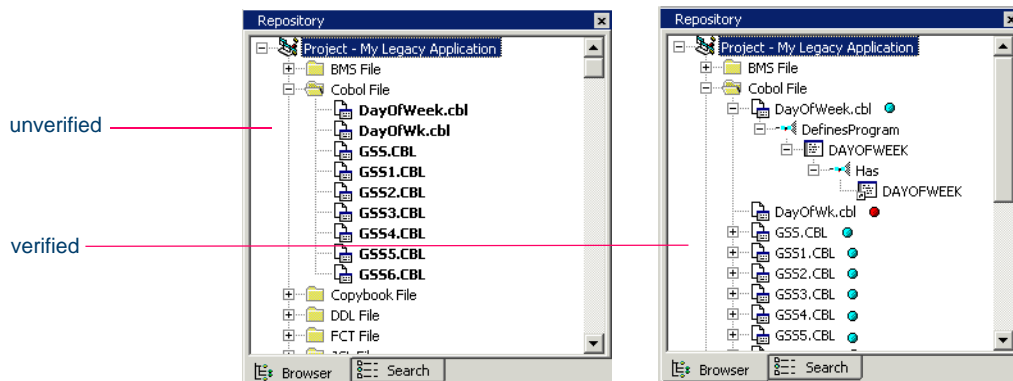
- A blue dot  means that the parser has verified the file successfully.
- A red dot  means that the parser has encountered an error in the file.
- A yellow dot  means that the parser has encountered an error in the file, but the relaxed parser has verified the file successfully.

Figure 3-8 compares unverified and verified workspaces. Notice in the verified workspace that the parser has built an object model for Day-OfWeek.cbl, but not for DayOfWk.cbl, which contained an error. Generally, the parser creates an object model for as much of the file as it understands.

Figure 3-8 *Unverified and Verified Workspaces*



Browser View

The browser view of the Repository pane displays workspace objects in hierarchical form, organized by project and object type (Figure 3-9 on page 3-10). Click the **Browser** choice in the **View** menu to show the browser view.

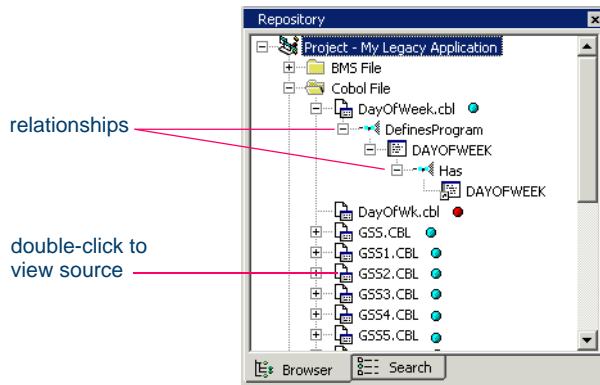
Click the plus sign (+) next to an object to expand its hierarchy. Click the minus sign (-) to collapse the hierarchy. You can export a subtree to a text file by right-clicking it and choosing **Save Subtree** in the pop-up menu.

Tip: The drop-down on the **Project** tool bar displays the current project. You can navigate quickly to another project in the browser view by clicking the project name in the drop-down.

Select (none) in the drop-down to make the entire workspace current. For more information, see [“Project Contents and Workspace Contents”](#) on page 3-11).

3-10 Asset Transformation Workbench Basics
Using the ATW Main Window


Figure 3-9 *Browser View*



Search View

The search view of the Repository pane displays an alphabetical list of workspace files returned by a search of the repository (Figure 3-10 on page 3-11). Click the **Search** choice in the **View** menu to show the view.

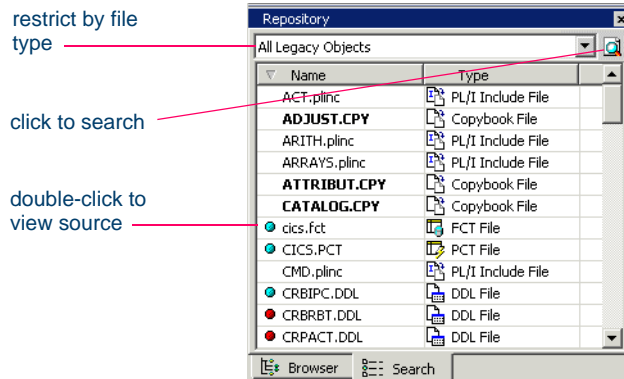
The search is performed on the current project or, if there is no current project, on the entire workspace. To restrict the list of files to a given file type, select the file type in the drop-down above the search view.

Click the  button to perform the search. You can export a list to a text file by right-clicking it and choosing **Save List** in the pop-up menu.

By default, the list shows two attributes of an object: its name and file type. Click the attribute column heading to sort the list by that attribute. You can select additional attributes to display in the Workspace Options window. Choose **Workspace Options** in the **Tools** menu. In the General tab, select the attributes in the Display Attributes pane.

Note: Only attributes of the selected object are displayed. That is, if you choose the Cyclomatic Complexity attribute while a JCL file is selected, the attribute will not be displayed, because Cyclomatic Complexity is not an attribute of a JCL file.

Figure 3-10 Search View



Hiding a Browser View or Search View

You can hide a browser view or search view by right-clicking it and choosing **Hide** in the pop-up menu. To restore the view, choose **Browser** or **Search** as appropriate in the **View** menu.

Tip: Occasionally, you may be able to improve performance — of a repository refresh, for example — by hiding the browser.

Project Contents and Workspace Contents

By default, the system displays the contents of the workspace organized by project. You can display the contents of the entire workspace — that is, all the objects in the workspace, regardless of the project they are in — by choosing **Entire Workspace** in the **View** menu.

Tip: The workspace tree contains folders for object types that are not separately listed in project views. These can be useful when you are trying to locate all objects of a certain type.

Selecting Objects in the Repository Pane

You select an object in the Repository pane by clicking it. To select all the objects in the search view or all the objects under the selected workspace, project, or folder in the browser view, choose **Select All** in the **Edit** menu. To deselect objects, choose **Unselect All** in the **Edit** menu.

3-12 Asset Transformation Workbench Basics
Using the ATW Main Window

To select a range of objects, hold down the Shift key, click the first object in the range, then click the last object in the range. To select objects that are not in a range, hold down the Control key, then click each object you want to select.

Use the **Select** choices in the **Edit** menu to select objects based on their verification status. The choices operate on the entire list in the search view and on the objects under the selected workspace, project, or folder in the browser view.

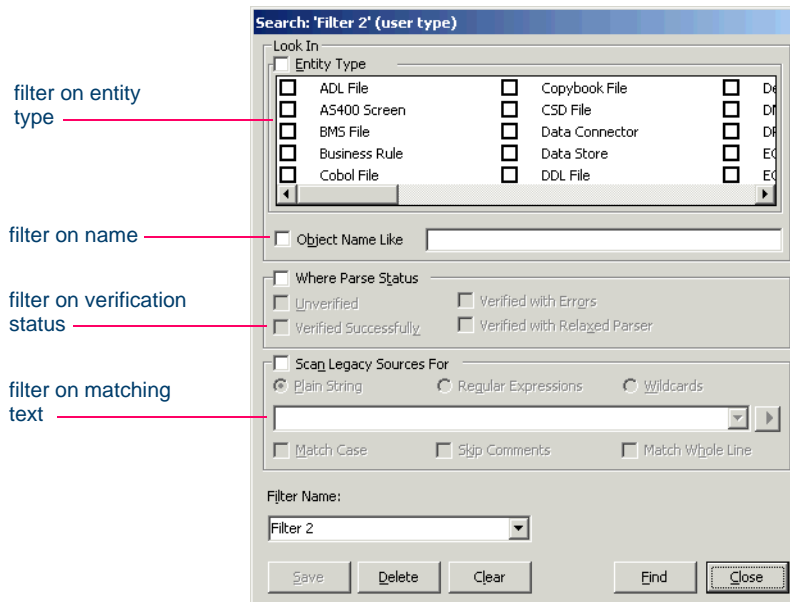
Searching for Objects in the Repository Pane

You can use predefined filters for object searches in the Repository pane, or create your own. You can filter on object type, name, verification status, and matching text. You can replace text if necessary.

To create a search filter:

- 1 In the **Edit** menu, choose **New Criteria**. The Search dialog opens (Figure 3-11).

Figure 3-11 Search Dialog



- 2 To filter on entity type, select the **Entity Type** check box and choose the entity type in the accompanying pane.
- 3 To filter on object name, select the **Object Name Like** check box and enter the text for the name match in the accompanying field. You can use wildcard patterns allowed in LIKE statements by Visual Basic for Applications (VBA).
- 4 To filter on verification status, select the **Where Parse Status** check box and choose the status in the accompanying group box.
- 5 To filter on a text match, select the **Scan Legacy Sources For** check box and enter the pattern for the match in the accompanying drop-down. You can enter plain character strings, regular expressions, or wildcards. Click the radio button for the type of pattern matching you want to use.

For regular expressions and wildcards, click the right arrow button next to the drop-down to display a list of elements you can insert in the pattern. You can use Posix regular expressions and wildcard patterns allowed in LIKE statements by Visual Basic for Applications (VBA).

Select the check boxes below the drop-down if you want the search to match case, skip comments, and/or match whole lines.

- 6 In the **Filter Name** drop-down, enter the name of the search filter and click **Save**.

Tip: Every search filter you create is saved, whether or not you save it explicitly. To delete a search filter, select it in the **Filter Name** drop-down and click **Delete**. To clear a search filter, select it in the **Filter Name** drop-down and click **Clear**.

To execute a search filter:

- 1 In the Search dialog (Figure 3-11 on page 3-12), choose the filter you want to execute in the **Filter Name** drop-down. You can choose a predefined or user-defined filter.
- 2 Click **Find**. The list of objects is returned in the search view.

To replace matched text:

1 In the search view, select the objects you want to search and choose **Replace** in the **Edit** menu. The Replace dialog opens (Figure 3-12).

2 The drop-down in the Scan Source group box contains the text filters from previous searches. Select the filter you want to use, or enter a new filter.

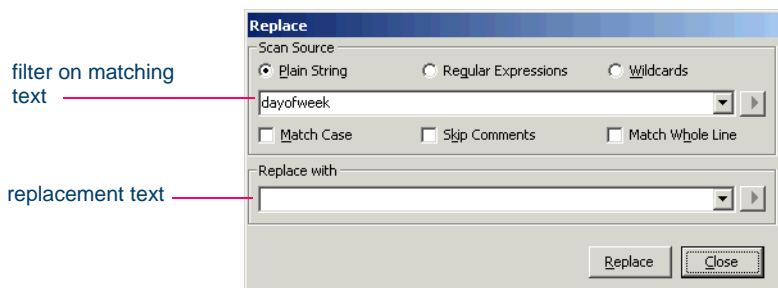
For regular expressions and wildcards, click the right arrow button next to the drop-down to display a list of elements you can insert in the pattern. You can use Posix regular expressions and wildcard patterns allowed in LIKE statements by Visual Basic for Applications (VBA).

Select the check boxes below the drop-down if you want the search to match case, skip comments, and/or match whole lines.

3 The drop-down in the Replace with group box contains the replacement text filters from previous replace operations. Select the filter you want to use, or enter a new filter. Build the pattern for the replacement text the same way you built the pattern for matching text in step 2.

4 Click **Replace**. You are prompted to confirm the replacement. Click **Yes**.

Figure 3-12 *Replace Dialog*

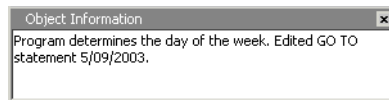


Object Information

The Object Information pane displays comments you have entered for an object. Select the object and choose **Object Information** in the **View** menu to show the Object Information pane (Figure 3-13).

Enter comments for an object by right-clicking on the object and choosing **Properties** in the pop-up menu. In the Description tab, enter your comment in the text area and click **OK**. For more information on object properties, see [“Viewing Object Properties” on page 3-21](#).

Figure 3-13 *Object Information Pane*

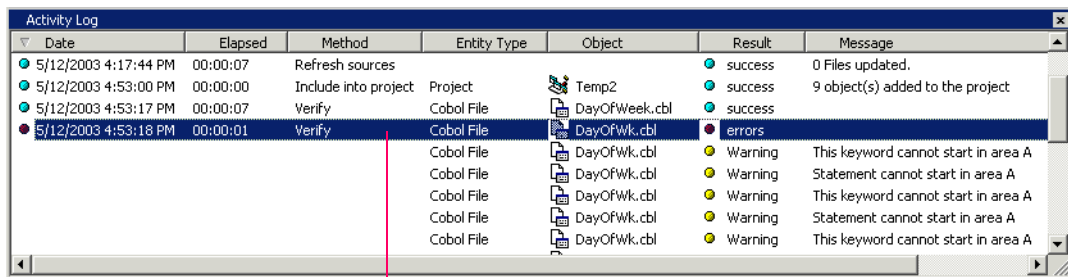


Activity Log

The Activity Log is a chronological record of your activities in the current session. Choose **Activity Log** in the **View** menu to show the Activity Log pane (Figure 3-14).

By default, the Activity Log is docked. You can “float” the Activity Log pane by right-clicking the pane and deselecting **Docked** in the pop-up menu.

Figure 3-14 *Activity Log Pane*






double-click to display list of errors

Sorting Entries Click a column heading in the Activity Log to sort the log by that column.

Hiding Columns Hide a column by right-clicking in the log and deselecting the column name in the **Columns** choice on the pop-up menu.

Sizing Columns Grab-and-drag the border of a column heading to increase or decrease the width of the column.

Viewing Errors If the parser generated errors or warnings for a file, double-click the log entry for the file or right-click the entry and choose **Expand** in the pop-up menu to show a list of the errors and/or warnings.

- A blue dot  denotes successful parsing.
- A red dot  denotes an error. An error can have one of three severity levels: error, severe, critical, in order of increasing severity.
- A yellow dot  denotes a warning.

Double-click a message to navigate to the offending source in the Editor. Choose **Collapse** in the right-click menu to collapse the list.

Generating Reports You can generate a report from the Activity Log by right-clicking in the log and choosing **Report** in the pop-up menu. For more information on reports, see [“Exporting Diagrams and Reports” on page 3-26](#).

Clearing the Log You can clear the log by right-clicking in the log and choosing **Clear Log** in the pop-up menu. You can clear a given log entry by selecting the entry and choosing **Delete** in the right-click menu.

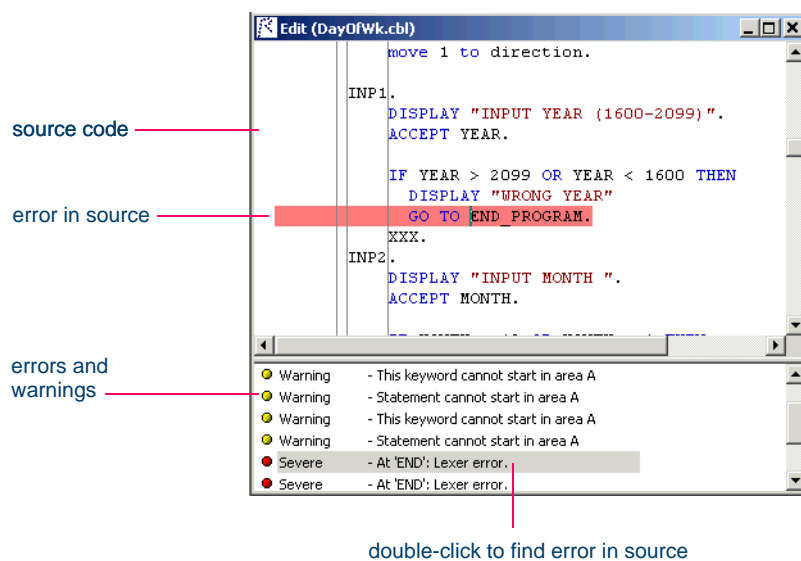
Copying Records To copy records to the clipboard, select the records and choose **Copy** in the right-click menu.

Viewing History To view log entries across sessions, choose **History** in the right-click menu. You can clear the history in the same way you cleared the log.

Editor

The Editor lets you view and edit the source code for a file. It also lets you view the contents of specialized files like screens and transformation target models. Double-click a file in the Repository pane to view it in the Editor (Figure 3-15). Choose **Recent Sources** in the **File** menu to open a file from a list of recently opened files.

Figure 3-15 Editor



Editing and Saving Source You can edit file source as you would text in a word processor (cut-and-paste, drag-and-drop, and so forth). Click **Save** in the **File** menu to save your changes. Your edits are saved in the version of the file maintained in the `\Workspace\Source` subfolder (see [“What File Outputs Can You Expect?”](#) on page 3-4).

Tip: Tool tips show line numbers in the source file when you scroll the Editor vertically.

Viewing a List of Errors Choose **Errors:View Errors** in the **Edit** menu to list the errors and warnings generated for the file in a separate pane below the source code. Choose **Errors:Severity Filter** in the **Edit** menu to filter the list by severity. Deselect **Errors:View Errors** to hide the list.

To view only the list of errors and warnings for the file, select it and choose **Show Errors** in the right-click menu.

Locating Errors Double-click an error or warning in the error list or Activity Log to navigate to the offending source in the Editor. Choose **Errors:Previous Error** or **Errors:Next Error** in the **Edit** menu to navigate to the previous and next errors, respectively, in the Editor.

Expanding Copybooks (Cobol, MFS Only) Choose **Expand Copy Statements** in the **Edit** menu to expand included statements in the current source. The added lines of code are highlighted and a comment line is inserted to identify the source include file.

Commenting Out Source Select a block of source and choose **Comment Block** in the **Edit** menu to comment out the block. Choose **Uncomment Block** to uncomment the block.

Changing Display Options Choose **User Preferences** in the **Tools** menu and click the Editor tab in the User Preferences window to change the display characteristics for the Editor:

- The font that source code is displayed in
- Whether color should be used in the source and, if so, the color of source elements (keywords, comments, and so forth)
- Whether to display DBCS escape control characters, as on a 3270 terminal

Tip: Choose **IBM 3270 Emulation** in the **Edit** menu to toggle this selection on and off.

- The types of errors to include in the error list

The font and color functions use standard Windows controls.

Printing Source Click the **Print** choice in the **File** menu to print the source for a file.

Finding and Replacing Source Choose **Find** or **Replace** in the **Edit** menu to use the Find and Replace utility. The utility provides full support

for Posix regular expressions. You can perform find and replace operations on the whole file or a selection.

Restoring Line Numbers in Natural Source Select a Natural source file and choose **Restore Line Numbers in Natural Source** in the **Edit** menu to restore stripped line numbers in the file.

How the System Refreshes the Repository

When you edit a source file in ATW, the system recursively checks every repository object that may be affected by the edit — *refreshes* the repository. If the edit invalidates the object, you need to re-verify the source file that contains it. The file with the invalidated object is displayed in **bold** type in the Repository pane.

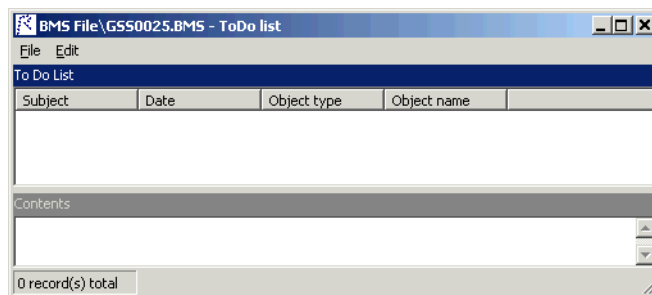
Creating a To Do List

A to do list is a record of tasks you need to perform before completing your project. You can create a to do list for a workspace, project, folder, source file, or extracted object.

To create a to do list:

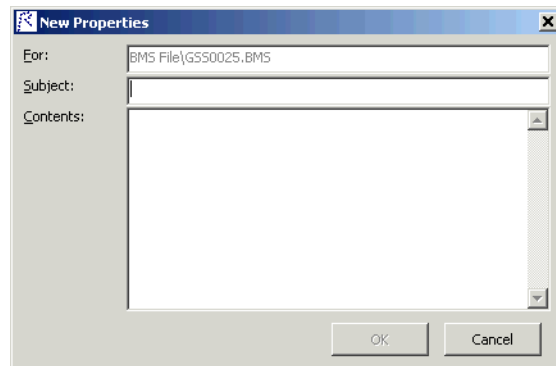
- 1 In the Repository pane, select a workspace, project, folder, source file, or extracted object and choose **ToDo List** in the **View** menu. The ToDo List window opens (Figure 3-16).

Figure 3-16 *ToDo List Window*



- 2A If you selected a source file or extracted object in [step 1 on page 3-20](#), choose **Add** in the **Edit** menu to enter a task for the item.
- 2B If you selected a workspace, project, or folder in [step 1 on page 3-20](#), choose **Add** in the **Edit** menu to enter a task for the item and all the items it contains. Otherwise, choose **Add for Item** to enter a task for the workspace, project, or folder only.
- 3 The New Properties dialog opens (Figure 3-17).

Figure 3-17 *New Properties Dialog*



- 4 In the **Subject** field, enter the subject of the task. In the **Content** field, enter a description of the task. Click **OK**. The task is listed in the ToDo List window.

To view a to do list:

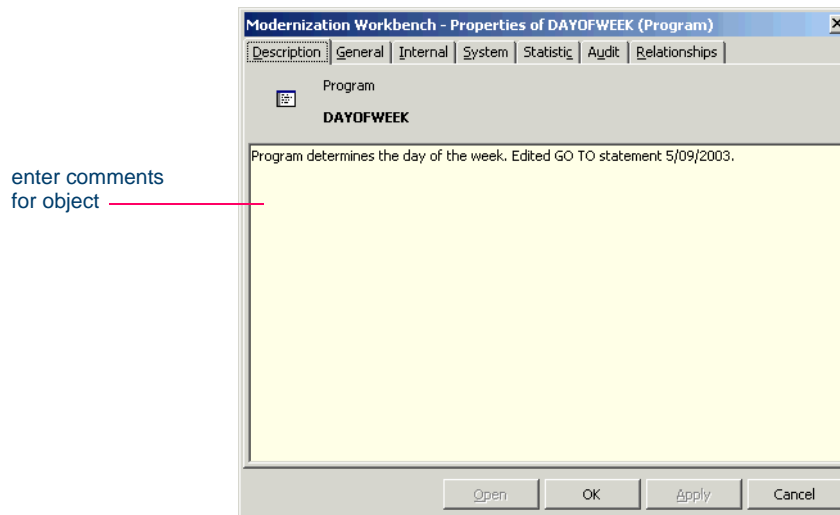
- 1 To view the to do list for an item, select the item in the Repository pane and choose **ToDo List** in the **View** menu. Use the options in the ToDo List window **Edit** menu to mark a task as done, delete a task, or view its properties.

Tip: You can generate a report from a to do list by choosing **Report** in the **File** menu. For more information on reports, see [“Exporting Diagrams and Reports” on page 3-26](#).

Viewing Object Properties

Select an object in the Repository pane and choose **Properties** in the **View** menu to display a set of tabs with object properties (Figure 3-18).

Figure 3-18 *Object Properties Window*



Entering Comments Enter comments for an object in the Description tab. The object information pane displays the comments you have entered for the selected object. For more information, see [“Object Information” on page 3-15](#).

Viewing Properties of Another Object In the Relationships tab, select an object in the relationships tree and click **Open** to view the properties for that object.

Closing and Resizing Panes

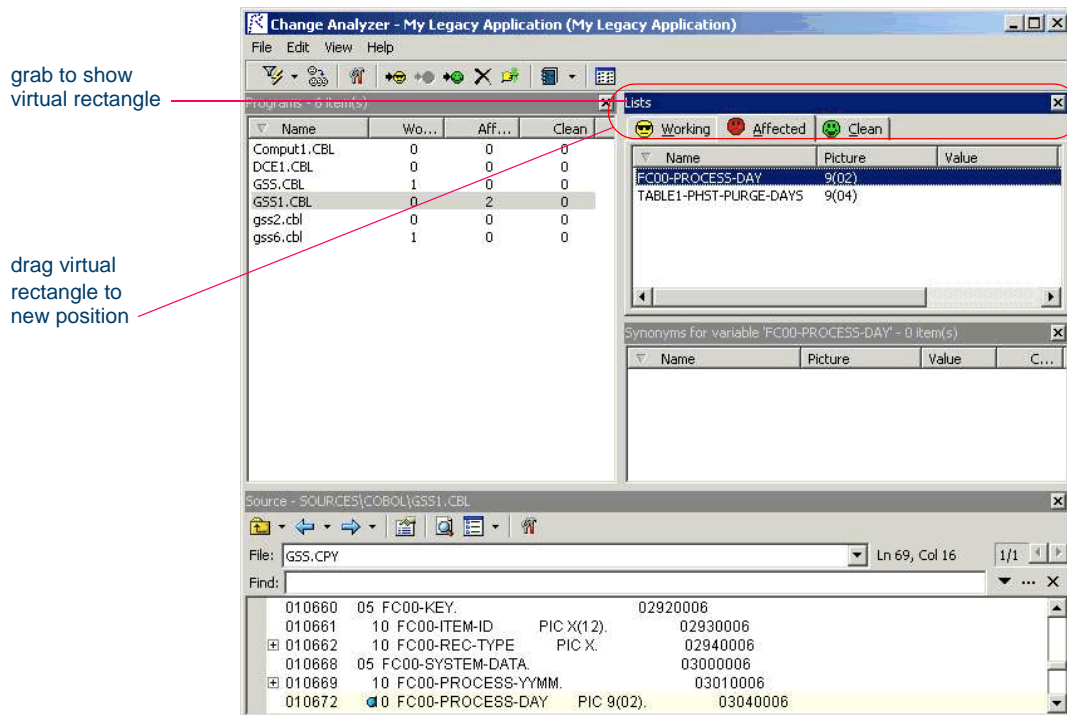
Close a pane by clicking the close box in the upper righthand corner of the pane. Reopen the pane by selecting the appropriate choice in the **View** menu. Resize a pane by using the mouse to grab its border with another pane, called a *splitter*, and dragging it to a new location.

Using Tool Windows

When you open an ATW tool, its window replaces the workbench main window. Tool windows are *modal* — you cannot perform other workbench functions until you close the tool window.

The tool window's state — size, location, configuration, and content — is saved across sessions. Figure 3-19 shows the window for the Change Analyzer tool, which you use to perform impact analysis across applications.

Figure 3-19 Change Analyzer Window



Resizing Panes

Resize a pane by using the mouse to grab its border with another pane, called a *splitter*, and dragging the border to a new location. You can control how panes are resized when you resize the entire tool window by

right-clicking the splitter and choosing one of the following in the pop-up menu:

- For a vertical splitter, **Keep First** preserves the size of the panes to the left of the splitter. For a horizontal splitter, **Keep First** preserves the size of the panes above the splitter.
- For a vertical splitter, **Keep Second** preserves the size of the panes to the right of the splitter. For a horizontal splitter, **Keep Second** preserves the size of the panes below the splitter.
- **Keep Proportion** preserves the length and width ratio of the panes on either side of the splitter.

Moving Panes

Move a pane in the window by grabbing its title bar to show the “virtual rectangle” for the pane. The virtual rectangle is a dotted color frame that you can drag to the position in the window at which you want the pane to appear. When you are satisfied with the new position, release the mouse button. The other panes in the window are adjusted as necessary.

Tip: You may have to drag the virtual rectangle beyond the edge of the tool window to achieve the effect you want.

You can swap the positions of the panes on either side of a splitter by right-clicking the splitter and choosing **Swap** in the pop-up menu. You can change the color of the splitter when it is selected (and of its virtual rectangle) by right-clicking the splitter and choosing **Color** in the pop-up menu. The color functions use standard Windows controls.

Closing Panes

Close a pane by clicking the close box in the upper righthand corner of the pane. Reopen the pane by selecting the appropriate choice in the **View** menu.

When a Task Completes

If ATW does not have the focus on your desktop, its icon on the Windows taskbar flashes briefly after it completes a task.

Setting Options

ATW options control the look and feel of the workbench tools and how they perform their tasks. The **Tools** menu in the main workbench window gives you access to three sets of options:

- **Workspace Options** control the appearance and behavior of workbench tools for the current workspace.
- **Project Options** control the appearance and behavior of workbench tools for the selected project.
- **User Preferences** control the appearance and behavior of the Editor, HyperView, and Change Analyzer across workspaces, and miscellaneous other tasks.

Each tool has an **Options** choice in the **View** menu that lets you set the options for that tool.

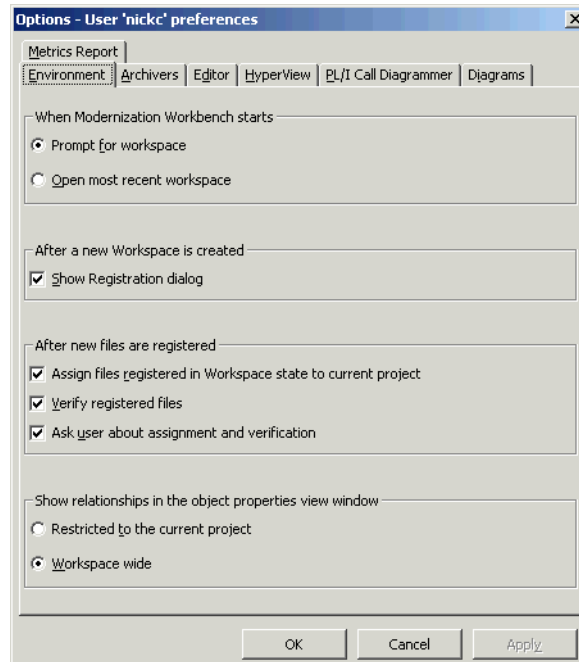
Note: Many options are preset based on your choices in the ATW Configuration Manager. For more information, see [“Configuring ATW” on page 2-9](#).

Workbench and tool options are described in detail in the relevant sections of the document set. This section shows you how to set options. As an example, it describes how you might change the way the workbench behaves at startup.

To set workbench startup options:

- 1 In the **Tools** menu in the ATW main window, choose **User Preferences**. The User Preferences window opens. Click the Environment tab (Figure 3-20 on page 3-25).
- 2 In the Environment tab, choose either:
 - **Prompt for workspace** if you want the workbench to ask you which workspace to open at startup.
 - **Open most recent workspace** if you want the workbench to open the last-opened workspace at startup.

Figure 3-20 *User Preferences Window*



- 3 Deselect **Show Registration dialog** if you do not want the workbench to show a dialog prompting you to add files after creating a workspace (Figure 3-3 on page 3-3).
- 4 Choose one or more of the following:
 - **Assign files registered in workspace state to current project** if you want the workbench to assign files to the current project after they have been registered.
 - **Verify registered files** if you want the workbench to verify files after they have been registered. Available only if **Assign files registered in Workspace state to current project** is selected.
 - **Ask user about assignment and verification** if you want the workbench to show a dialog prompting you to confirm that you want the workbench to assign and verify files after they have been registered (Figure 3-4 on page 3-4). Available whether or not the other two choices are selected.

- 5 Choose either:
 - **Restricted to the current project** if you want the object relationships shown in the Relationships tab of the Object Properties window (Figure 3-18 on page 3-21) to be limited only to those in the current project.
 - **Workspace wide** if you want the relationships shown in the Relationships tab of the Object Properties window to include all relationships in the current workspace.
- 6A Click **Apply** if you want to save your settings without dismissing the User Preferences window.
- 6B Click **OK** if you want to save your settings and dismiss the User Preferences window. The new settings take effect immediately.

Propagating Option Settings to Other Users

You can ensure uniform results across your team by propagating option settings to team members. Use the **Save To** choice in the drop-down menu below the **Tool Defaults** push button to save your option settings to a file. You can then send the file to other users working on the same application. They use the **Load From** choice in the same menu to restore the option settings from the file.

Exporting Diagrams and Reports

Whenever you generate a diagram or report in ATW, you have the option of exporting it to a file for viewing, editing, or printing. You can export to a wide variety of standard formats.

Note: Word must be installed to save reports to RTF and Word. Excel must be installed to save reports to Excel and TXT. Visio 2002 must be installed to save a diagram to Visio. Visio 2002 is not required to save to Visio XML.

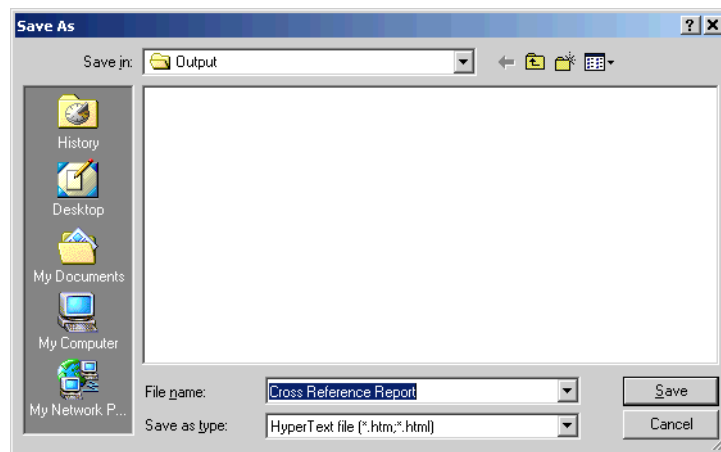
Diagram and report generation is described in detail in the relevant sections of the document set. This section shows you how to export a report.

As an example, it describes how you might export a reference report. Exporting a diagram is similar.

To export a reference report:

- 1 In the **File** menu in the Reference Report window (not shown), choose **Save Report As**. The Save As dialog opens (Figure 3-21).

Figure 3-21 *Save As Dialog*



- 2 In the **Save in** drop-down, choose the folder to save the report file in. In the **File name** field, enter the name of the report file. Choose a name that describes the report as closely as possible. In the **Save as type** drop-down, choose the type of file you want to save the report as. Click **Save**. The report file is created in the specified folder.

Specifying the Output Folder for Generated Files

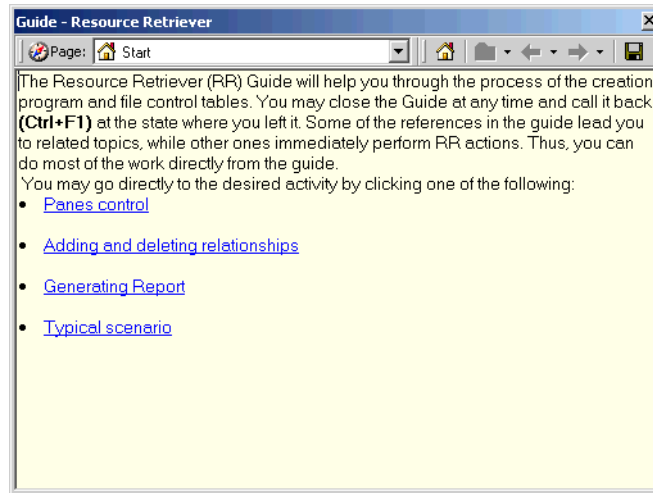
By default, ATW stores generated files in the *\Workspace\Output* folder. You can specify a different folder in the **Target directory** field in the Export tab of the Project Options window (see [“Setting Options” on page 3-24](#)). Deselect the **Move Files** check box in the Export tab if you want to copy generated files to both the default and the specified directories.

Using the Guide for a Tool

Many ATW tools have *guides* that you can use to get started quickly in the tool. The guides are help-like systems with hyperlinks that you can use to access functions otherwise available only in menus and other program controls.

To open the guide for a tool, choose **Guide** in the **View** menu. Use the table of contents in the **Page** drop-down to navigate quickly to a topic. Figure 3-22 on page 3-28 shows the guide for the Resource Retriever tool.

Figure 3-22 *Resource Retriever Guide*



What's Next?

That completes your tour of ATW! Now you're ready to start setting up ATW projects, as described in *Preparing Projects* in the workbench documentation set.

Installing and Using the WSAA Bridge



IBM's WebSphere Studio Asset Analyzer (WSAA) leverages the power of the WebSphere application server to offer modern enterprises easy-to-use Web-based tools for inventorying, analyzing, and re-architecting application portfolios. The *WSAA Bridge* joins WSAA's enterprise-wide scanning and analysis capabilities with the deep analysis available in ATW.

Understanding the WSAA Bridge

The WSAA Bridge distributes the source files in a WSAA project to PCs running ATW, and registers and verifies the source files in batch mode (Figure A-1 on page A-2). The bridge consists of a server component on a WebSphere application server (WAS), and client components running the application server client. Administrators use a Web interface to configure the bridge, and to request file transfer, registration, and verification, or *import*, services.

When the administrator requests an import:

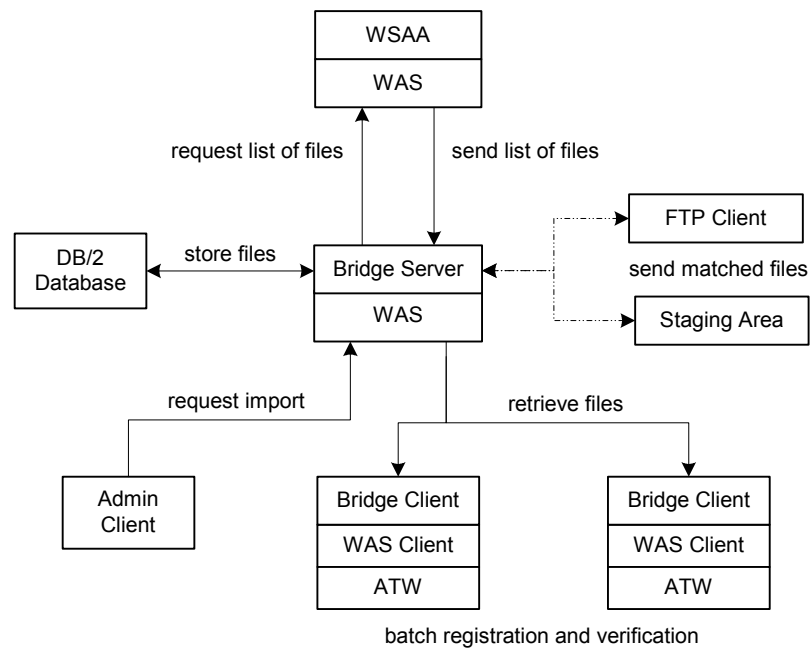
- 1 WSAA provides the bridge server with a list of files in the project.

A-2 Installing and Using the WSAA Bridge
Understanding the WSAA Bridge

- 2 If the FTP option has been configured, the bridge server arranges for the files in the list to be downloaded from the mainframe via FTP. Otherwise, the bridge server compares the list of files with files manually downloaded to a *staging area* for the project.
- 3 If the name of a downloaded file matches the name of a file in the WSAA list, the bridge server transfers the file to a DB/2 database.
- 4 The bridge server notifies bridge clients that WSAA project source files are available to be processed.
- 5 Bridge clients retrieve source files and perform batch registration and verification, either locally or after distributing the files to PCs running the workbench.

Redundant mechanisms ensure that files are not processed unnecessarily. Files downloaded to staging areas must be in ASCII format.

Figure A-1 *WSAA Bridge Import*



Hardware and Software Requirements

Table A-1 lists the hardware and software requirements for WSAA Bridge client installations.

Table A-1 *Client Hardware and Software Requirements*

Application Server Client	WebSphere Application Server Client 5.1, with Embedded Messaging Support
ATW	ATW 1.1
Disk Space	30 MB

Table A-2 lists the hardware and software requirements for WSAA Bridge server installations.

Table A-2 *Server Hardware and Software Requirements*

Application Server	WebSphere Application Server 5.1, with Embedded Messaging Support
DBMS	DB/2 Client or Server 7.2 with Fix Pack 12 WR21337, or DB/2 Client or Server 8.0. For DB/2 7.2, you must enable 7.2/XA Drivers. For assistance, contact support services.
Disk Space	6 MB

Contents of Installation CD

The WSAA Bridge client and server software ships on a single CD and uses the same installation program. The installation program is packaged in a platform-independent JAR file format and a Windows executable format. If you use the JAR file format, make sure that java.exe is in your path. The CD also contains ATW and ATW Profiler software.

Note: The CD autoruns the ATW installation program. Cancel the installation program if ATW is already installed, or does not need to be installed.

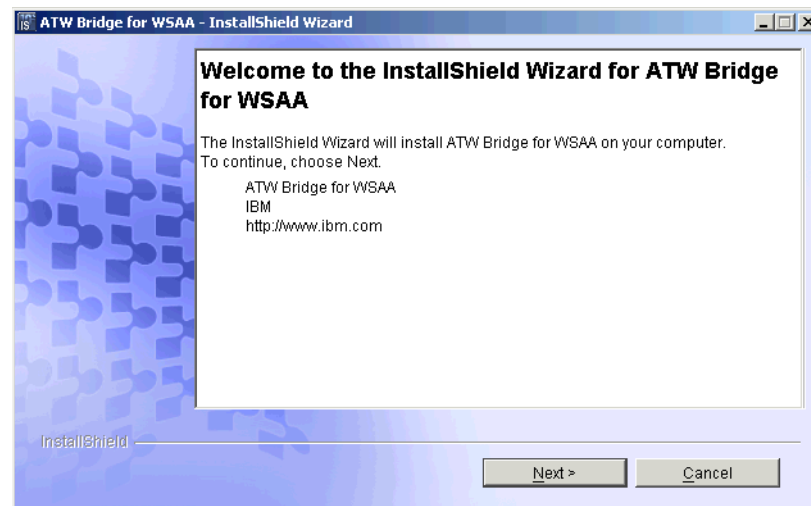
Running the Client Installation Program

Before running the client installation program, make sure you have administrative permissions for the machine on which you are installing the client. If you do not have administrative permissions, the installation program will not let you continue. You can install multiple clients on the same machine.

To install the WSAA Bridge client:

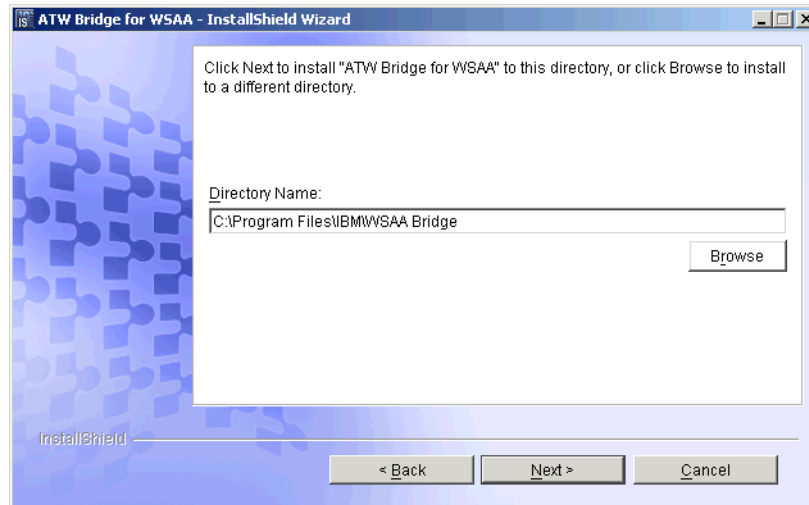
- 1 Insert the CD into your CD-ROM drive. In the installation folder, double-click the `setupwin32.exe` program, or enter `java -jar setup.jar` in a command window. The Welcome screen opens (Figure A-2).

Figure A-2 *Welcome Screen*



- 2 In the Welcome screen, click **Next** to continue. The License Agreement screen opens. Read the License Agreement carefully. Click **I accept the terms of the license agreement** to accept its terms, then click **Next** to continue. The Destination Folder screen opens (Figure A-4).

Figure A-3 *Destination Folder Screen*

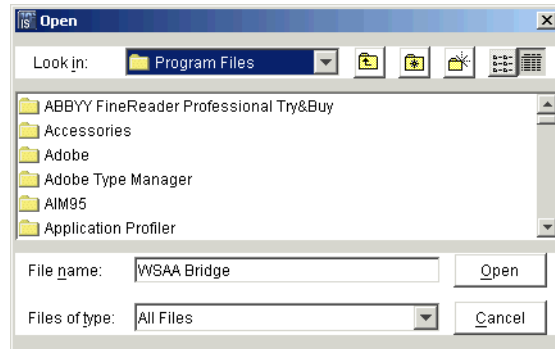


- 3 In the Destination Folder screen, choose an installation folder for the client. Figure A-3 shows the screen prefilled with the default C:\Program Files\IBM\WSAA Bridge. To accept the prefilled value, click **Next**.

To specify a different folder, click **Browse**. The Change Current Destination Folder screen opens (Figure A-4 on page A-6).

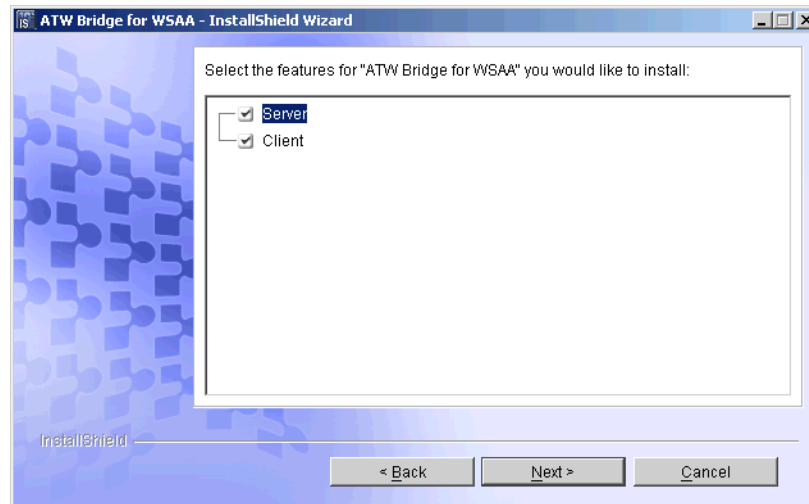
A-6 Installing and Using the WSAA Bridge
Running the Client Installation Program

Figure A-4 *Change Current Destination Folder Screen*



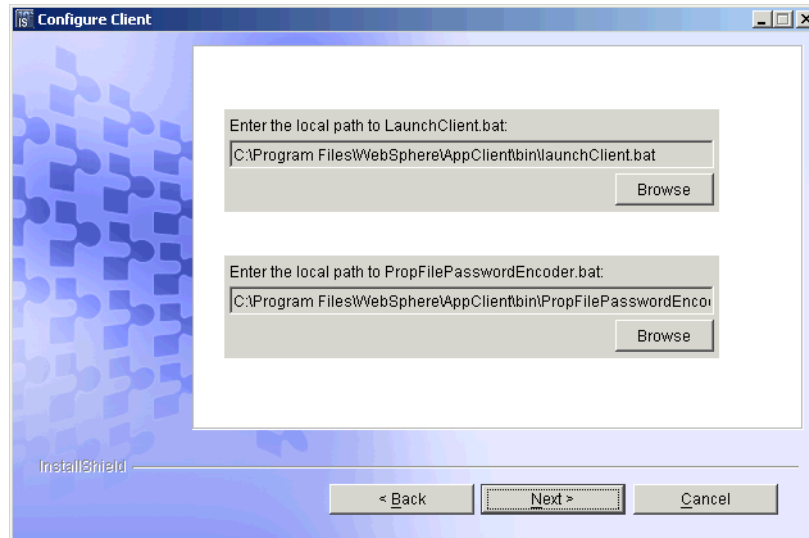
Navigate the folder structure to find a suitable location. Edit the name of the destination folder if necessary. Click **Open** to accept the specified location and return to the Destination Folder screen. Click **Next** in the Destination Folder screen to continue. The Feature to Install screen opens (Figure A-5).

Figure A-5 *Feature to Install Screen*



- 4 In the Feature to Install screen, place a check mark next to **Client**, then click **Next** to continue. The Application Server Client Information screen opens (Figure A-6).

Figure A-6 *Application Server Client Information Screen*



- 5 In the Application Server Client Information screen, enter the following information about the WebSphere application server client:
 - In the **Launch program path** field, the path to the launch program for the application server client. The field is prefilled with the current path of the launch program.
 - In the **Encoder program path** field, the path to the password encoder program for the application server client. The field is prefilled with the current path of the password encoder program.

To specify a different path, click **Browse**, then follow the instructions in [step 3 on page A-5](#). Click **Next** to continue. The Application Server Information screen opens (Figure A-7 on page A-8).

Figure A-7 *Application Server Information Screen*

Configure Client

Enter information about the application server that runs the ATW Bridge for WSAA server:

Server URL: quark

Node name: quark

Server name: server1

Enter authentication information for the connection to the application server:

User identifier: wsaa

Password:

InstallShield

< Back Next > Cancel

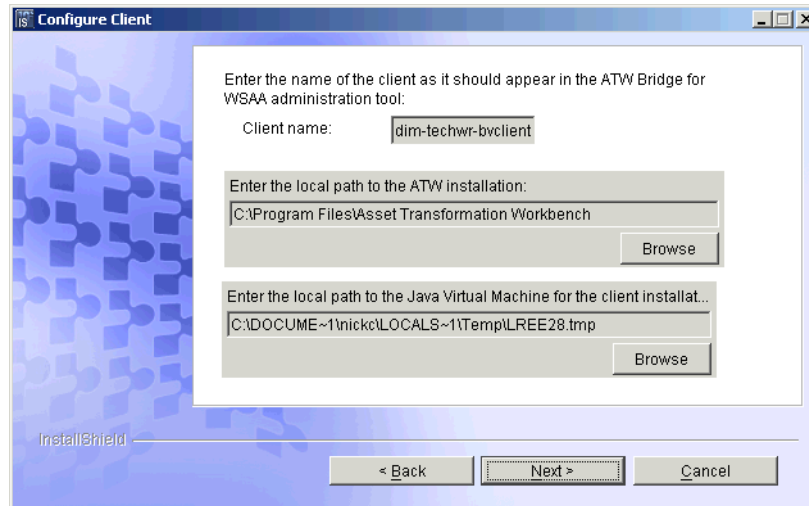
- 6** In the Application Server Information screen, enter the following information about the WebSphere application server that runs the WSAA bridge server:
- In the **Server URL** field, the URL of the application server.
 - In the **Node name** field, the node name of the application server.

Note: The **Server URL** and **Node name** fields are disabled if you specified the launch program from the application server client installation in [step 5 on page A-7](#), rather than the launch program from the application server installation.

- In the **Server name** field, the name of the application server.
- In the **User identifier** field, the name the client uses to connect to the application server.
- In the **Password** field, the password the client uses to connect to the application server.

Click **Next** to continue. The Client Information screen opens (Figure A-8 on page A-9).

Figure A-8 *Client Information Screen*

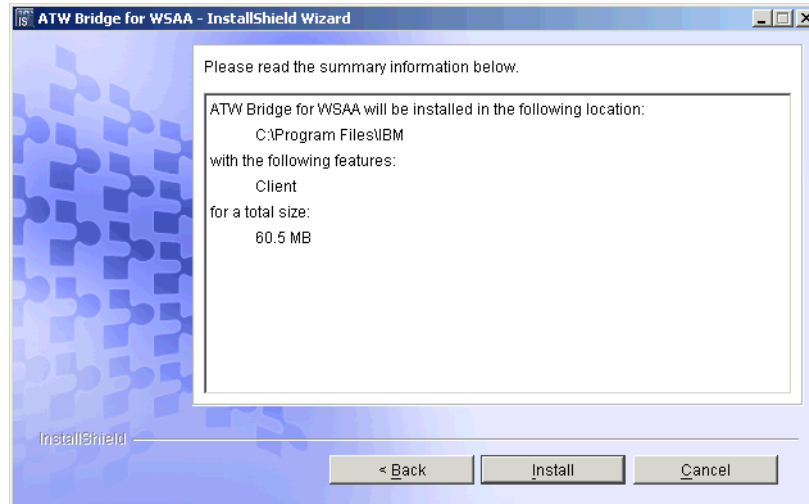


- 7 In the Client Information screen, enter the following information about the bridge client:
 - In the **Client name** field, the name of the client as it should appear in the administrative interface. By default, the name is formed by adding the suffix `-bvclient` to the machine name.
 - In the **Workbench path** field, the path to the ATW installation. The field is prefilled with the current path of the ATW installation.
 - In the **Java path** field, the path to the Java Virtual Machine (JVM) for the client installation. The field is prefilled with the current path of the JVM.

To specify a different path, click **Browse**, then follow the instructions in [step 3 on page A-5](#). Click **Next** to continue. The Summary screen opens (Figure A-9 on page A-10).

A-10 Installing and Using the WSAA Bridge
Running the Client Installation Program

Figure A-9 *Summary Screen*

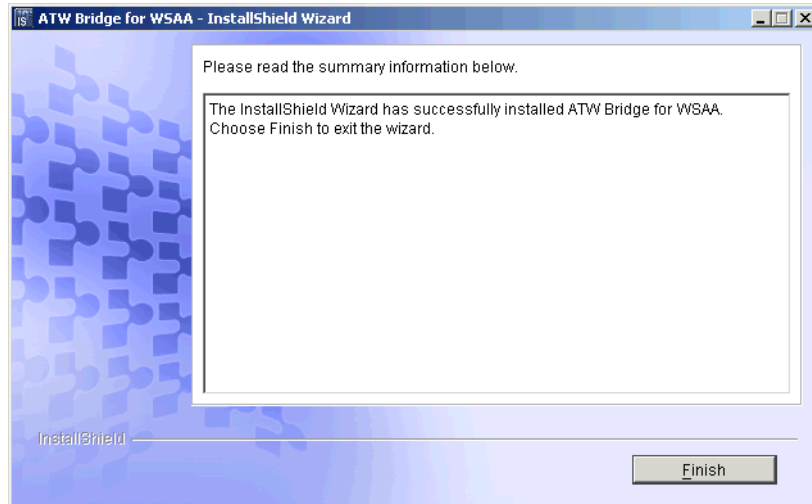


- 8 Click **Install** to begin transferring files to your machine. A progress meter indicates the progress of the transfer.

Note: To make changes to the settings, click **Back** repeatedly until you find the information you are looking for, make your changes, then click **Next** until you return to the Summary screen.

When the transfer is complete, the Setup Complete screen opens (Figure A-10 on page A-11). Click **Finish** in the Setup Complete screen to exit the installation.

Figure A-10 *Setup Complete Screen*



Running the Server Installation Program

Before running the server installation program, make sure you have administrative permissions for the machine on which you are installing the server. If you do not have administrative permissions, the installation program will not let you continue.

Important: The Web Sphere Application Server must be running when you install the WSAA Bridge server.

To install the WSAA Bridge server:

- 1 Insert the CD into your CD-ROM drive. In the installation folder, double-click the `setupwin32.exe` program, or enter `java -jar setup.jar` in a command window. The Welcome screen opens (Figure A-2 on page A-4).
- 2 In the Welcome screen, click **Next** to continue. The License Agreement screen opens. Read the License Agreement carefully. Click **I accept the terms of the license agreement** to accept its terms, then

A-12 Installing and Using the WSAA Bridge
Running the Server Installation Program

click **Next** to continue. The Destination Folder screen opens (Figure A-3 on page A-5).

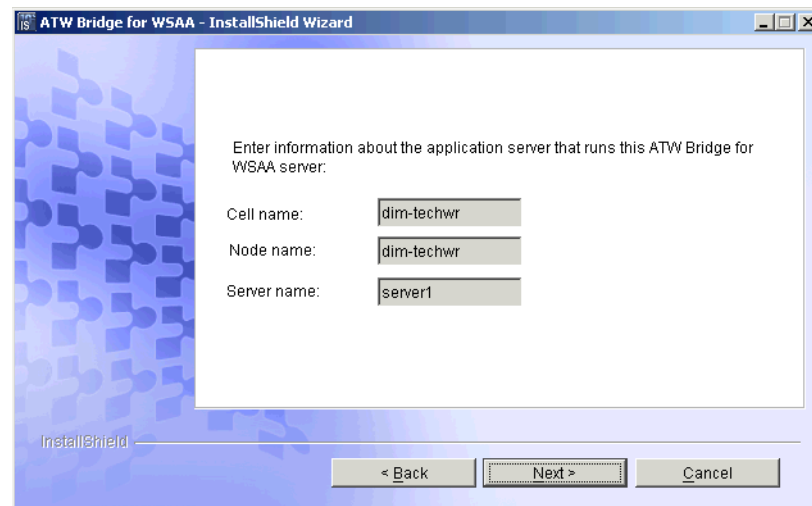
- 3 In the Destination Folder screen, choose an installation folder for the server. Figure A-3 on page A-5 shows the screen prefilled with the default `C:\Program Files\IBM\WSAA Bridge`. To accept the prefilled value, click **Next**.

To specify a different folder, click **Browse**, then follow the instructions in [step 3 on page A-5](#).

Click **Next** in the Destination Folder screen to continue. The Feature to Install screen opens (Figure A-5 on page A-6).

- 4 In the Feature to Install screen, place a check mark next to **Server**, then click **Next** to continue. The Application Server Information screen opens (Figure A-11).

Figure A-11 *Application Server Information Screen*



- 5 In the Application Server Information screen, enter the following information about the WebSphere application server that runs this WSAA bridge server:
- In the **Cell name** field, the cell name of the application server.
 - In the **Node name** field, the node name of the application server.
 - In the **Server name** field, the name of the application server.
- Click **Next** to continue. The DB/2 and Application Server Information screen opens (Figure A-12).

Figure A-12 *DB/2 and Application Server Connection Information Screen*

ATW Bridge for WSAA - InstallShield Wizard

Enter the local path to the DB2 server:
C:\Program Files\IBM\SQLLIB\ Browse

Enter the local path to the application server:
C:\Program Files\WebSphere\AppServer\bin Browse

Enter authentication information for the connection to the application server:
User identifier: irmwadmin
Password:

InstallShield

< Back Next > Cancel

- 6 In the DB/2 and Application Server Connection Information screen, enter the following connection information for the DB/2 and application servers:
- In the **DB/2 path** field, the path to the DB/2 server. The field is prefilled with the current path of the DB/2 server.
 - In the **WebSphere Application Server path** field, the path to the application server. The field is prefilled with the current path of the application server.

A-14 Installing and Using the WSAA Bridge
Starting the Client and Server

- In the **User identifier** field, the name the bridge server uses to connect to the DB/2 and application servers.
- In the **Password** field, the password the bridge server uses to connect to the DB/2 and application servers.

Note: The installation assumes that the bridge server uses the same name and password for both servers.

To specify a different path, click **Browse**, then follow the instructions in [step 3 on page A-5](#). Click **Next** to continue. A Summary screen similar to the one in Figure A-9 on page A-10 opens.

- 7** In the Summary screen, click **Install** to begin transferring files to your machine. A progress meter indicates the progress of the transfer.

Note: To make changes to the settings, click **Back** repeatedly until you find the information you are looking for, make your changes, then click **Next** until you return to the Summary screen.

When the transfer is complete, the Setup Complete screen opens (Figure A-10 on page A-11). Click **Finish** in the Setup Complete screen to exit the installation.

Starting the Client and Server

The bridge server and at least one client must be started before you can perform an import:

- To start the server, click **WSAA Bridge** in the **IBM** program group in the Windows **Start** menu.
- To start the client, click **Batch Verification Client (*client name*)** in the **IBM** program group in the Windows **Start** menu, where *client name* is the name you specified in [step 7 on page A-9](#).

Importing WSAA Projects

Administrators use a Web interface to configure the bridge and import WSAA project source files to an ATW workspace.

Configuring WSAA Webservices

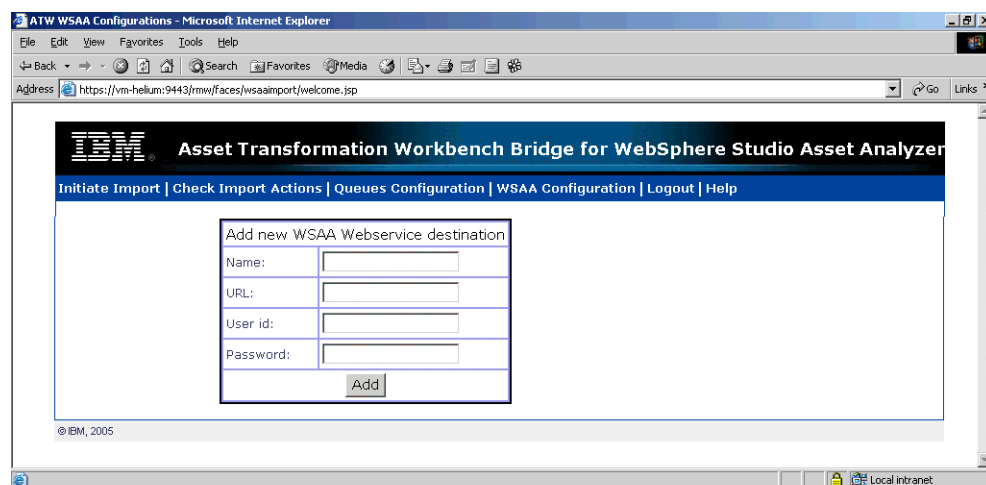
When you import a WSAA project, you specify the WSAA *webservice* that controls access to the project. Use the bridge administration interface to configure webservices. You do not have to start WSAA clients to configure webservices.

To configure WSAA webservices:

- 1 In Internet Explorer, go to `http://host name:9080/rmw`, where *host name* is the name of the machine running the bridge server. The WSAA Bridge Welcome screen opens. Click **WSAA Configuration**. If you are configuring the bridge for the first time, the screen shown in Figure A-13 opens.

Note: If the bridge server is secured, you will be required to enter a user name and password to connect to the bridge server.

Figure A-13 WSAA Configuration Screen (Before Configuring Webservices)

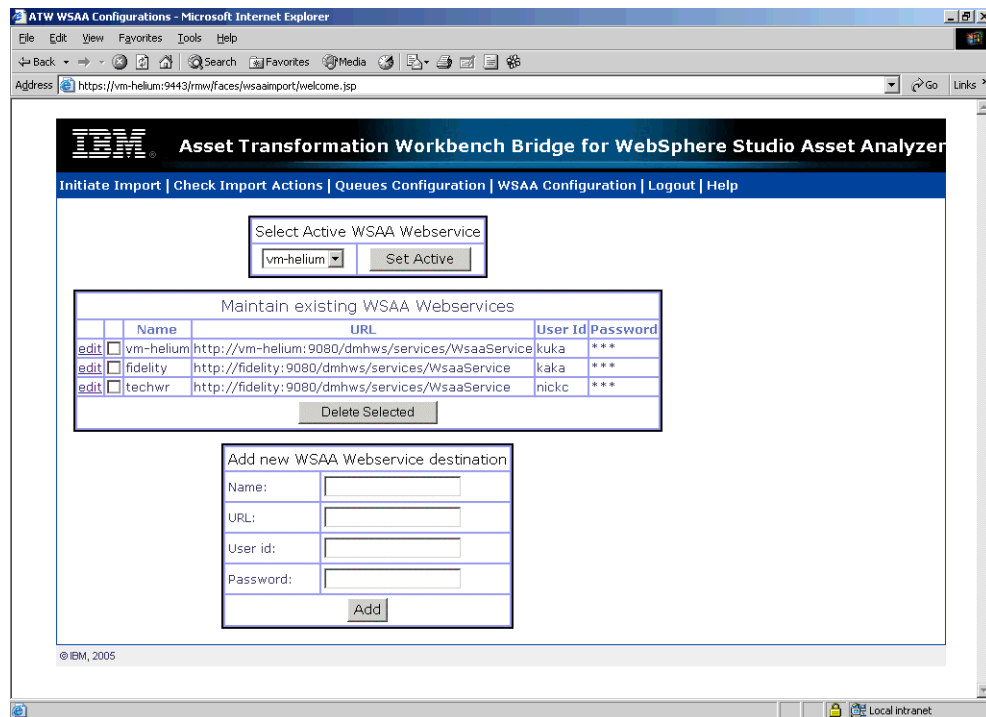


- 2 In the WSAA Configuration screen, enter the following information about each WSAA Webservice the bridge server accesses:
 - In the **Name** field, the name of the webservice.
 - In the **URL** field, the URL of the webservice.
 - In the **User ID** field, the name used to access the webservice.
 - In the **Password** field, the password used to access the webservice.

Note: The User ID and Password fields are for future use. You can enter any text, as long as you do not leave the fields blank.

When you are satisfied with your entries, click **Add**. A screen similar to the one shown in Figure A-14 opens.

Figure A-14 WSAA Configuration Screen (After Configuring Webservices)



- 3 To edit WSAA webservice configuration information, click the **edit** link for the entry you want to modify. An edit dialog opens, where you can make the necessary changes. To delete a webservice entry, place a check mark next to the entry and click **Delete Selected**.

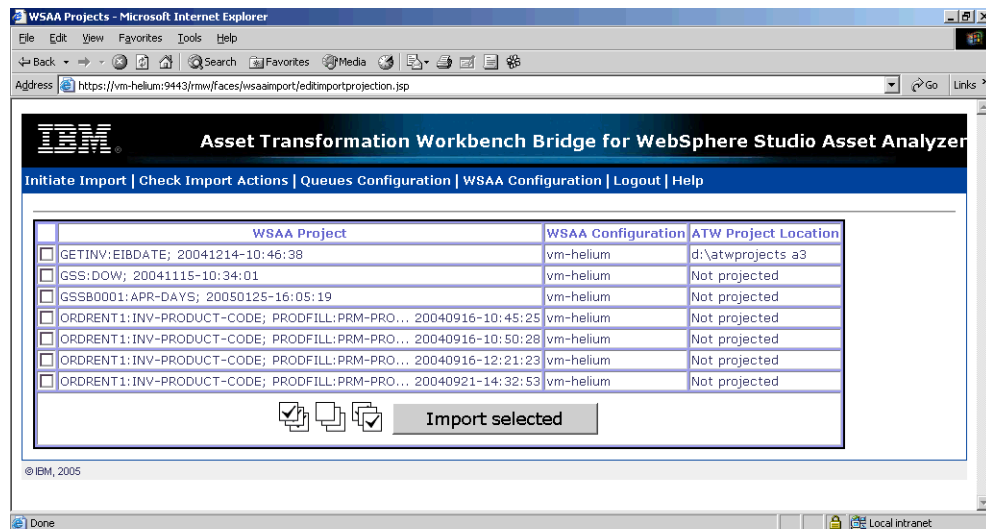
Requesting an Import

An import registers the source files in a WSAA project in an ATW workspace and verifies the workspace in batch mode, either locally or after distributing the files to a PC running the workbench. You must start each bridge client you are using to import projects.

To import WSAA projects:

- 1 In the WSAA Configuration screen (Figure A-14 on page A-16), select the WSAA webservice for the import in the drop-down at the top of the window, then click **Set Active**.
- 2 Click **Initiate Import**. A screen similar to the one shown in Figure A-15 opens. The screen shows WSAA projects accessible to the active webservice and the destination folder and workspace you have specified for each project.

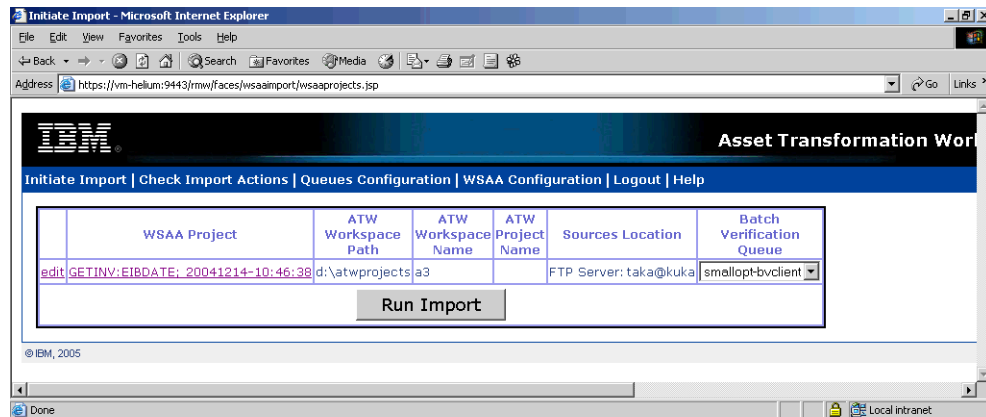
Figure A-15 *Initiate Import Screen*



A-18 Installing and Using the WSAA Bridge
Importing WSAA Projects

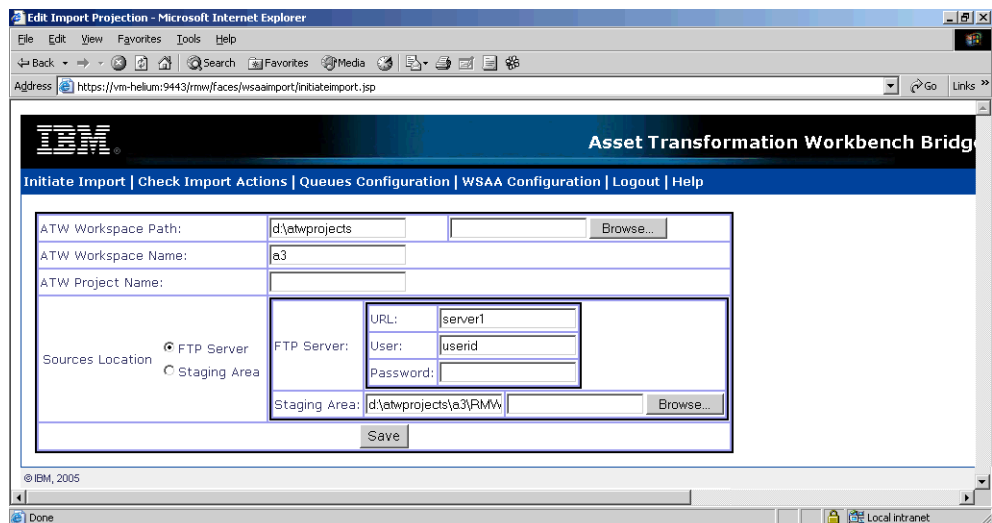
- 3 Place a check mark next to the entry for each project you want to import and click **Import selected**. A screen similar to the one shown in Figure A-16 opens. The screen shows the import information for each project you selected.

Figure A-16 *Run Import Screen*



- 4 To edit the import information for a project, click the **edit** link for the project. A screen similar to the one shown in Figure A-17 opens.

Figure A-17 *Edit Import Information Screen*



5 In the Edit Import Information screen, enter the following information about the import request:

- In the **Workspace Path** field, the path of the folder for the workspace that will contain the WSAA project. If the destination folder does not exist, the bridge software creates it. Click the **Browse** button to open a standard Choose File window, where you can select the destination folder.

Tip: Source files can be distributed to *any* host visible to a client.

- In the **Workspace** field, the name of the workspace that will contain the WSAA project. If the workspace does not exist, the bridge software creates it.

Tip: Remember that an ATW workspace can contain multiple projects.

- In the **Project** field, the name of the project in the workspace.

In the Sources Location area, select:

- **FTP Server** if you are downloading project source files via an FTP Server. Enter the URL of the FTP server and the ID and password for accessing the server in the appropriate fields.
- **Staging Area** if you have downloaded project source files manually to a staging area. Enter the path of the staging area in the adjacent field. Click the **Browse** button to open a standard Choose File window, where you can select the staging area folder.

When you are satisfied with your choices, click **Save**. You are returned to the Run Import screen (Figure A-16 on page A-18).

6 In the **Batch Verification Queue** drop-down, select the queue for each import request you have selected. There is one queue for each bridge client you have started. You can view queue information by clicking **Queues Configuration** in the administration interface.

7 Click **Run Import** to start the import request. Check the status of a request by clicking **Check Import Actions** in the administration interface.

A-20 Installing and Using the WSAA Bridge
Importing WSAA Projects

Glossary

Activity Log

The Activity Log is a chronological record of your activities in the current [Asset Transformation Workbench \(ATW\)](#) session.

ADABAS

ADABAS is a Software AG relational [DBMS](#) for large, mission-critical applications.

Animator

Animator lets you step through the code displayed in a [HyperView](#) pane. You can choose program branches yourself, or have the animator choose them randomly.

API

API stands for application programming interface, a set of routines, protocols, and tools for building software applications.

applet

See [Java applet](#).

Application Analyzer

Application Analyzer is a set of non-invasive interactive tools used to analyze and document legacy systems.

Application Architect

Application Architect uses advanced algorithms to partition code into new [components](#) and perform [Dead Code Elimination](#).

Application Namespace tool

The Application Namespace tool creates a conveniently organized dictionary that helps you navigate through your system's terminology and modify it as necessary.

Application Partitioner

Application Partitioner identifies legacy subsystems and partitions them into self-contained projects based on an analysis of [repository](#) contents.

Application Profiler

Application Profiler, consisting of [WebGen](#) and [Profiler](#), generates a set of HTML views of a legacy application based on the [object model](#) created in a previous analysis.

AS/400

The AS/400 is a midrange server designed for small businesses and departments in large enterprises.

Asset Transformation Workbench (ATW)

Asset Transformation Workbench (ATW) is a suite of PC-based software products for analyzing, re-architecting, and transforming legacy applications.

Batch Application Viewer

Batch Application Viewer performs low-level analysis of batch processes.

batch refresh

The batch refresh feature lets you register and verify source files in batch mode. Other utilities packaged with the feature let you analyze application [complexity](#), run [WebGen](#), and, if you are licensed to use the Application Architect product, perform [Dead Code Elimination](#).

Bird's Eye pane

The Bird's Eye pane works with the [HyperView](#) Source pane to let you quickly identify the location of a code construct relative to the entire program.

BMS

BMS stands for Basic Mapping Support, an interface between application formats and [CICS](#) that formats input and output display data.

BSTR

BSTR is a Microsoft format for transferring binary strings.

business rule

A business rule is a named container that identifies and documents code segments according to their business function. Business rules encapsulate an application's business logic, making the application easier to understand, document, maintain, and test.

Business Rule Manager

Business Rule Manager lets you generate [business rules](#) from code segments extracted manually from source or autodetected.

Callie pane

The [HyperView](#) Callie pane displays a diagram that shows the flow of control between paragraphs or procedures in a program.

CDML

CDML stands for Cobol Data Manipulation Language, an extension of the [Cobol](#) programming language that enables applications programmers to code special instructions to manipulate data in a [DMS](#) database and to compile those instructions for execution.

Change Analyzer

Change Analyzer identifies the class of data items used to perform a business function in a legacy application. Among other uses, it lets you answer the kinds of "What if?" questions posed in the recent past by the industry-wide changes for Y2K, Zip+4, and the Euro dollar: "What if I change the type of this variable, or the length of this field — what *other* fields will I also have to change?"

CICS

CICS stands for Customer Information Control System, a program that allows concurrent processing of [transactions](#) from multiple terminals.

Clipper

The [HyperView](#) Clipper tool lets you create lists of candidates for [business rule](#) extraction, [event injection](#), and other tasks. Each list captures the results of a different stage of your analysis and serves as input for subsequent tasks.

Cobol

Cobol stands for Common Business-Oriented Language, a high-level programming language used for business applications.

COM

COM stands for Component Object Model, a software architecture developed by Microsoft to build [component](#)-based applications. COM objects are discrete components, each with a unique identity, which expose interfaces that allow applications and other components to access their features.

complexity

A [project's](#) complexity is an estimate of how difficult it is to maintain, analyze, transform, and so forth.

component

A component is a self-contained program that can be reused with other programs in modular fashion.

Component Maker

The [HyperView](#) Component Maker tool lets you “slice out” [components](#) from legacy applications — not only component executables but associated [Cobol](#) copybooks, [PL/I](#) includes, and [Natural](#) data areas as well.

computation-based component extraction

Computation-based [component](#) extraction lets you build a component that contains all the code necessary to calculate the value of a variable at a particular point in a program — the value of a DayOfTheWeek variable, for example, where it is used to populate a report attribute or screen.

Configuration Manager

Configuration Manager is a tool used to enable [Asset Transformation Workbench \(ATW\)](#) products and configure your workbench for the

tools, programming languages, legacy dialects, and character sets in use at your site.

construct

A construct is an item in the [parse tree](#) for a source file — a section, statement, condition, variable, or the like. A variable, for example, can be related in the parse tree to any of three other constructs — a declaration, a dataport, or a condition. You view the parse tree for a source file in the HyperView [Context pane](#).

Context pane

The [HyperView](#) Context pane displays the [parse tree](#) for the selected source file. The parse tree displays source code constructs — sections, paragraphs, statements, conditions, variables and so forth — in hierarchical form, making it easy to locate code constructs quickly.

copybook

A copybook is a common piece of source code to be copied into many [Cobol](#) source programs. Copybooks are functionally equivalent to C and C++ include files.

CORBA

CORBA stands for Common Object Request Broker Architecture, an architecture that enables distributed objects to communicate with one another regardless of the programming language they were written in or the operating system they are running on.

CSD file

CSD stands for [CICS](#) System Definition. A CSD file is a [VSAM](#) data set containing a resource definition record for every resource defined to [CICS](#).

database schema

A database schema is the structure of a database system, described in a formal language supported by the [DBMS](#). In a relational database, the schema defines the tables, the fields in each table, and the relationships between fields and tables.

dataport

A dataport is an input/output statement or a call to or from another program.

DB/2

DB/2 stands for Database 2, an IBM system for managing relational databases.

DBCS

DBCS stands for double-byte character string, a character set that uses two-byte (16-bit) characters rather than one-byte (8-bit) characters.

DBMS

DBMS stands for database management system, a collection of programs that enable you to store, modify, and extract information from a database.

DDL

DDL stands for Data Description Language (DDL), a language that describes the structure of data in a database.

Dead Code Elimination

Dead code elimination is a type of [component](#) extraction that removes unused (“dead”) code from a legacy application.

decision resolution

Decision resolution lets you identify and resolve dynamic calls and other relationships that the [parser](#) cannot resolve from static sources.

Diagrammer

Diagrammer lets you view the [relationships](#) between the objects in a [project](#) interactively — programs, files, [DDL](#), [Java](#), screen maps, and more. These relationships describe the ways in which application objects interact. Compare [Quick Diagrammer](#).

DMS

DMS stands for Data Management System, a Unisys database management software product that conforms to the CODASYL (network) data model and enables data definition, manipulation, and maintenance in mass storage database files.

domain-based component extraction

Domain-based component extraction “specializes” a program based on the values of one or more variables. The specialized program is typically intended for reuse “in place” — in the original application but under new external circumstances.

DPS

DPS stands for Display Processing System, a Unisys product that enables users to define forms on a terminal.

ECL

ECL stands for Executive Control Language, the operating system language for Unisys OS 2200 systems.

effort

Effort is an estimate of the time it will take to complete a task related to a [project](#), based on weighted values for selected [complexity](#) metrics.

EJB

EJB stands for Enterprise JavaBeans, a [Java API](#) developed by Sun Microsystems that defines a [component](#) architecture for multi-tier client/server systems.

EMF

EMF stands for Enhanced MetaFile, a Windows format for graphic images.

entity

An entity is an object in the [repository](#) model for a legacy application. The relationships between entities describe the ways in which the elements of the application interact.

entry point isolation

Entry point isolation extracts a [component](#) that contains only the functionality and data definitions required for invocation from the selected entry point.

event injection

Event injection is a type of [component](#) extraction that adapts a legacy program to asynchronous, event-based programming models.

Execution Path pane

The [HyperView](#) Execution Path pane displays a hierarchical view and diagram of the conditions that determine the flow of control in a program.

external subroutine extraction

External subroutine extraction is a type of [structure-based component extraction](#) that replaces a single internal subroutine in a [Natural](#) program with an external subroutine.

FCT

FCT stands for File Control Table (FCT), a [CICS](#) table that contains processing requirements for output data streams received via a remote job entry session from a host system. Compare [PCT](#).

Flowchart pane

The [HyperView](#) Flowchart pane displays a diagram of the flow of control between statements in a paragraph or procedure.

Global Data Flow tool

The [HyperView](#) Global Data Flow tool performs low-level analysis of program data flows.

HTML

HTML stands for HyperText Markup Language, the authoring language used to create documents on the World Wide Web.

HyperView

HyperView is a set of program analysis tools that let you analyze legacy programs interactively, by examining synchronized, complementary views of the same information — source, context, impacts, and so forth.

IDL

IDL stands for Interface Definition Language (IDL), a generic term for a language that lets a program or object written in one language communicate with another program written in an unknown language.

IDMS

IDMS stands for Integrated Database Management System, a Computer Associates database management system for the IBM mainframe and compatible environments.

Impact pane

The [HyperView](#) Impact pane displays a hierarchical view and diagram of the *impact trace* for a program variable. An impact trace de-

scribes how data items interact with each other in a program — exchange values, use each other in computations, and so forth.

Impact Report pane

The [HyperView](#) Impact Report pane shows the flow of data from a startup item to every data item that would be affected by its modification. The report is organized in hierarchical form according to the depth of the affected item.

IMS

IMS stands for Information Management System, an IBM program product that provides transaction management and database management functions for large commercial application systems.

Java

Java is a high-level [object-oriented programming](#) language developed by Sun Microsystems.

Java applet

A [Java](#) applet is a program that can be sent with a Web page. Java applets perform interactive animations, immediate calculations, and other simple tasks without having to send a user request back to the server.

JavaBeans

JavaBeans is a specification developed by Sun Microsystems that defines how [Java](#) objects interact. An object that conforms to this specification is called a JavaBean.

JCL

JCL stands for Job Control Language, a language for identifying a [job](#) to OS/390 and for describing the job's requirements.

JDBC

JDBC stands for Java Database Connectivity, a standard for accessing diverse database systems using the [Java](#) programming language.

job

A job is the unit of work that a computer operator or a program called a *job scheduler* gives to the operating system. In IBM mainframe operating systems, a job is described with job control language ([JCL](#)).

job dependencies

[Batch Application Viewer](#) treats [jobs](#) as dependent if one writes to a dataset and the other reads from the same dataset. Occasionally, you may want to define dependencies between jobs based on other criteria — administrative needs such as scheduling, for example.

logical component

A logical component is an abstract [repository](#) object that gives you access to the source files that comprise a [component](#).

MFS

MFS stands for Message Format Service, a method of processing [IMS](#) input and output messages.

Missing Copybooks Resolution tool

The Missing Copybooks Resolution tool resolves undefined variables in missing [copybooks](#) for [Cobol](#) programs verified with the [relaxed parsing](#) option.

Model Reference pane

The [HyperView](#) Model Reference pane displays the [parse tree](#) meta-model in text and diagram form.

name-based partitioning

Name-based partitioning is a partitioning algorithm that assigns source files to projects based on text matching of source file names with specified patterns.

Natural

Natural is a programming language developed and marketed by Software AG for the enterprise environment.

object model

An object model is a representation of an application and its encapsulated data.

object-oriented programming

Object-oriented programming organizes programs in terms of objects rather than actions, and data rather than logic.

ODBC

ODBC stands for Open Database Connectivity, a standard for accessing diverse database systems.

orphan

An orphan is an object that does not exist in the reference tree for any startup object. Orphans can be removed from a system without altering its behavior.

Orphan Analysis tool

The Orphan Analysis tool lets you analyze and resolve [orphans](#).

parser

The [Asset Transformation Workbench \(ATW\)](#) parser defines the [object model](#) and [parse tree](#) for a legacy application.

parse tree

A parse tree defines the relationships among the constructs that comprise a source file — its sections, paragraphs, statements, conditions, variables, and so forth.

PCT

PCT stands for Program Control Table, a [CICS](#) table that defines the transactions that the CICS system can process. Compare [FCT](#).

PL/I

PL/I stands for Programming Language One, a third-generation programming language developed in the early 1960s as an alternative to assembler language, [Cobol](#), and FORTRAN.

PL/I Call Diagrammer

PL/I Call Diagrammer performs low-level analysis of [PL/I](#) programs. Use it to examine call flows for internal procedures that the [Diagrammer](#) is unable to model.

profile

Profiles are HTML views into a [repository](#) that show all of the analysis you have done on an application. Profiles are convenient ways to share information about legacy applications across your organization.

Profiler

Profiler is a Web server-based tool that offers company-wide access to [profiles](#) of any repository in your organization. It gives managers, business analysts, testers, and customer support personnel convenient, browser-based access to analyzed legacy code.

project

A project is a logical subdivision of a [workspace](#). You might have a project for the batch portion of your application and another project for the online portion, for example. You can also use a project to collect items for discrete tasks — all the source files affected by a change request, for example.

QSAM

QSAM stands for Queued Sequential Access Method, a type of processing that uses a queue of data records—either input records awaiting processing or output records that have been processed and are ready for transfer to storage or an output device.

Quick Diagrammer

The Quick Diagrammer tool lets you view relationships for selected objects only, rather than an entire project. Compare [Diagrammer](#).

refactoring

Refactoring translates a program into a [component](#) with the same functionality and control flow, but a simpler syntax structure.

reference reports

[Asset Transformation Workbench \(ATW\)](#) offers three related reports that you can use to identify missing or unneeded program elements in application source: an unresolved report, an unREFERRED report, and a cross-reference report.

relationship

The relationships between entities in the [repository](#) model for a legacy application describe the ways in which the elements of the application interact.

relationship-based partitioning

Relationship-based partitioning is a partitioning algorithm that assigns source files to projects based on the extent to which the source

files are related. If two source files reference the same [copybook](#), for example, they can be regarded as “tightly related,” at least as compared with source files that do not reference the same copybook.

relationship weight

A relationship weight determines the importance of that [relationship](#) in calculating the connection between source files in [relationship-based partitioning](#).

relaxed parsing

Relaxed parsing lets you verify a source file despite errors. Ordinarily, the parser stops at a statement when it encounters an error. Relaxed parsing tells the parser to continue to the next statement.

repository

A repository is a database of program objects that comprise the model for a [workspace](#).

Repository Browser

The [Asset Transformation Workbench \(ATW\)](#) Repository Browser displays the contents of the current [workspace](#).

Resource Retriever

The Resource Retriever tool lets you identify and restore missing [CICS](#) file connectors and transactions in file control tables ([FCT](#)) and program control tables ([PCT](#)) for [Cobol](#) and [PL/I](#) programs.

Rules pane

The [HyperView](#) Rules pane lets you create [business rules](#) from code segments extracted manually from source or autodetected. You can also create business rules from candidates listed in [Clipper](#).

schema

See [database schema](#).

scope

The scope of a diagram determines the objects and [relationships](#) it displays. See [Diagrammer](#).

seed field

A seed field is the object of a [Change Analyzer](#) search for the class of data items that need to be changed.

Source pane

The [HyperView](#) Source pane displays view-only source code for the selected file and included files.

SQL

SQL stands for Structured Query Language, a standard language for relational database operations

structure-based component extraction

Structure-based component extraction is a type of [component](#) extraction that builds a component from a range of inline code — [Cobol](#) paragraphs, for example.

synonym

A synonym is a data field whose value is related to the value of the matched [seed field](#) — a field whose value is assigned by a MOVE or REDEFINE statement, for example.

system program

A system program is a generic program — a mainframe sort utility, for example — provided by the underlying system and used in unmodified form in the legacy application.

TIP

TIP stands for Transaction Processing, the Unisys real-time system for processing transactions under Exec control.

token

In the [Application Namespace tool](#), a token is an element in a program identifier delimited by a hyphen (-) or underscore (_). In the identifier WS01-CUST-FIELD, for example, there are three tokens: WS01, CUST, and FIELD.

transaction

A transaction is a sequence of information exchange and related work (such as database updating) that is treated as a unit for the purposes of satisfying a request and for ensuring database integrity.

Unknown Statements Resolution tool

The Unknown Statements Resolution tool resolves incorrect or unsupported statements in [Cobol](#) programs verified with the [relaxed parsing](#) option.

User Interface tool

The User Interface tool lets you analyze the interaction between legacy screens and program logic, and generate an [HTML](#) or [Java](#) GUI based on the interaction.

VALTAB

VALTAB stands for Validation Table, which contains the information the system needs to locate, load, and execute transaction programs. See also [TIP](#).

VSAM

VSAM stands for Virtual Storage Access Method, an IBM program that controls communication and the flow of data in a Systems Network Architecture network.

WebGen

WebGen generates HTML views of the repositories on your workstation. You can publish the views to [Profiler](#), where they can be accessed by any member of your organization with a browser.

workspace

A workspace is a named container for an application or a portion of an application. Workspaces can be divided into [projects](#).

XML

XML stands for Extensible Markup Language, a specification for creating common information formats.

Bibliography

- *IBM Asset Transformation Workbench v1.1 Getting Started (SC31-6877-00)*
- *IBM Asset Transformation Workbench v1.1 Preparing Projects (SC31-6879-00)*
- *IBM Asset Transformation Workbench v1.1 Analyzing Projects (SC31-6880-00)*
- *IBM Asset Transformation Workbench v1.1 Analyzing Programs (SC31-6878-00)*
- *IBM Asset Transformation Workbench v1.1 Profiling Projects (SC31-6881-00)*
- *IBM Asset Transformation Workbench v1.1 Creating Components (SC31-6876-00)*
- *IBM Asset Transformation Workbench v1.1 Parser Reference (SC31-6882-00)*
- *IBM Asset Transformation Workbench v1.1 Architecture Reference (SC31-6898-00)*

Notices

This information was developed for products and services offered in the U.S.A. IBM® may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing

IBM Corporation

North Castle Drive

Armonk, NY 10504-1785

U.S.A.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation

Licensing

2-31 Roppongi 3-chome, Minato-ku

Tokyo 106, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION •AS IS• WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you. This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you. Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
P.O. Box 12195, Dept. TL3B/B503/B313
3039 Cornwallis Rd.
Research Triangle Park, NC 27709-2195
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurement may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only. This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

Trademarks

The following terms are trademarks of the IBM Corporation or its subsidiaries in the United States or other countries or both:

Table 1. Trademarks

IBM	MVS
AS400	CICS
IMS	DB/2
Database 2	OS/390
S/390	z/OS

The following terms are trademarks of other companies:

Java and JavaScript are registered trademarks and Sun Solaris and Solaris are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Microsoft and Windows are trademarks of Microsoft Corporation in the United States, other countries, or both.

Other company, product and service names may be trademarks or service marks of others.

Index

A

- Application Analyzer 1-2
- Application Architect 1-3
- Application Profiler 1-2
- Asset Transformation Workbench (ATW)
 - configuring 2-9
 - hardware and software requirements
 - 2-2
 - installing 2-3
 - overview 1-1
 - starting 3-1

B

- Business Rule Manager 1-3

C

- commenting out source 3-18
- comments 3-15, 3-21

- componentization 1-3
- configuring
 - Asset Transformation Workbench (ATW) 2-9
 - WSAA Bridge A-15
- copybooks 3-18

D

- diagrams, exporting 3-26

E

- editing source 3-17
- editor 3-17
- entities 1-6
- errors, viewing 3-17
- expanding copybooks 3-18
- exporting diagrams and reports 3-26

F

- file outputs 3-4
- filters for searches 3-12
- find and replace 3-18

G

- guides 3-28

H

- hardware requirements
 - Asset Transformation Workbench (ATW) 2-2
 - WSAA Bridge A-3
- HyperView 1-5

I

- installing
 - Asset Transformation Workbench (ATW) 2-3
 - WSAA Bridge A-4

L

- language support 1-7

M

- menus
 - customizing 3-6
 - overview 3-6
- migrating workspaces 2-10
- moving panes 3-23

O

- object information pane 3-15
- object properties 3-21
- options 3-24

P

- panes
 - moving 3-23
 - resizing 3-21, 3-22
- Posix regular expressions 3-13, 3-14
- printing source 3-18
- Profiler 1-2
- project
 - browser view 3-9
 - commenting out source 3-18
 - creating to do lists 3-19
 - editing source 3-17
 - expanding copybooks 3-18
 - finding and replacing source 3-18
 - options 3-24
 - overview 1-6
 - printing source 3-18
 - search view 3-10
 - searching for objects 3-12
 - selecting objects 3-11
 - verifying files 3-4
 - viewing errors 3-17
 - viewing object properties 3-21
- properties 3-21

R

- registering files 3-3, 3-25
- relationships, overview 1-6
- relaxed parsing 1-4
- replacing matched text 3-14
- replacing source 3-18
- reports, exporting 3-26
- Repository Browser
 - searching for objects 3-12
 - selecting objects 3-11
- Repository pane
 - browser view 3-9
 - search view 3-10

repository, overview 1-6
resizing panes 3-21, 3-22

S

searching for objects 3-12
selecting objects 3-11
software requirements
 Asset Transformation Workbench
 (ATW) 2-2
 WSAA Bridge A-3
splitters 3-21, 3-23
starting
 Asset Transformation Workbench
 (ATW) 3-1
 WSAA Bridge A-14
startup options 3-24
subtree, exporting 3-9, 3-10
supported languages 1-7

T

to do lists 3-19
tool bars 3-8

U

user preferences 3-24

V

verifying files 3-4, 3-25

W

WebGen 1-2
wildcard patterns 3-13
workspace
 adding files 3-3
 commenting out source 3-18
 creating 3-3

creating to do lists 3-19
editing source 3-17
expanding copybooks 3-18
finding and replacing source 3-18
migrating 2-10
options 3-24
overview 1-6, 3-1
printing source 3-18
searching for objects 3-12
selecting objects 3-11
verifying files 3-4
viewing errors 3-17
viewing object properties 3-21
WSAA Bridge
 configuring WSAA webservices A-15
 hardware and software requirements
 A-3
 importing WSAA projects A-17
 installing client A-4
 installing server A-11
 overview A-1
 starting client and server A-14

Index-4



Product Number: 5724-L54

SC31-6877-00



(1P) P/N: 5724-L54

