



Getting Started with IBM Software Assembly Toolkit

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Chapter 1. About this document

Getting Started with IBM® Software Assembly Toolkit describes the IBM Software Assembly Toolkit.

This document provides basic information to help you understand the benefits of using the Software Assembly Toolkit and the process for using it effectively.

This document provides overview information on the following tasks:

- Introducing the Software Assembly Toolkit
- Installing the Software Assembly Toolkit
- Using the Software Assembly Toolkit
- Finding more information

Who might use this information

This document is intended for business partners who plan to use the Software Assembly Toolkit to create, configure, and deploy solutions. It assumes you have no previous experience with the Software Assembly Toolkit.

This document provides a description of basic processes necessary to use the Software Assembly Toolkit effectively. After reading this document, you can use the more detailed information sources as a step-by-step guide for creating, configuring, and deploying solutions.

This document provides an overview of the following topics:

- The value of using the Software Assembly Toolkit
- Tools and components included with the Software Assembly Toolkit
- User roles typically required to use the Software Assembly Toolkit
- Process for developing a solution
- Options for deploying a solution
- Finding more detailed information

Chapter 2. Introduction to the Software Assembly Toolkit

Total business solutions for mid-sized company customers usually involve multiple products that work and share data together. These solutions often depend on middleware, such as a Web server, a database, and an application server. The Software Assembly Toolkit provides an easy method for integrating custom applications with middleware to deliver a total business solution to end users as a single package.

When you provide a total business solution to end users as a single package, you simplify the process of deploying a solution and guarantee that a solution is configured correctly. Using the Software Assembly Toolkit, you specify configuration parameters during solution creation, which later prevent end users from installing a solution incorrectly. You can provide a solution directly to end users for installation as needed, without requiring further assistance for configuration or integration. The Software Assembly Toolkit greatly reduces the complexity and time required to deploy a total business solution to mid-sized company customers.

This chapter provides information on the tools included with the Software Assembly Toolkit that help you create total business solutions. The chapter covers:

- Software Assembly Toolkit user roles
- Components of the Software Assembly Toolkit

Software Assembly Toolkit typical user roles

A user role defines a set of the core skills required to perform a specific activity.

Using the Software Assembly Toolkit effectively to create, configure, and deploy total business solutions requires several core skills. The Software Assembly Toolkit users can be described by four user roles. One person might complete the tasks of multiple user roles, but each user role must have at least one person capable of completing its necessary tasks. You need to identify people to take on the following user roles:

Application developer

The application developer creates the business partner application.

Solution developer

The solution developer builds solutions to integrate the installation and configuration of applications with selected middleware. The solution developer should be familiar with Java™ and XML.

Solution distributor

The solution distributor distributes solutions to customers.

End User

The end user completes the deployment of a solution and might perform solution maintenance and administrative tasks.

Software Assembly Toolkit developer

The Software Assembly Toolkit developer is an Eclipse-based plug-in that provides a standard development environment.

To create solutions, you must develop or modify existing deployment accelerators. The Software Assembly Toolkit developer includes custom editors that allow you assemble solutions quickly and easily. The custom editors automatically generate deployment accelerators as you provide simple information about applications and solutions. A deployment accelerator is a set of XML files, user programs, scripts, image resources, and other user specified data that is used to enable the deployment of a software entity to a computer.

Deployment wizard

The deployment wizard is an easy-to-use tool for deploying solutions.

The deployment wizard can be used by solution distributors and end users. End users can use solution launcher image CDs or DVDs to automatically start the deployment wizard. With the deployment wizard started, the end customer is guided through the deployment of your solution. A solution developer can choose to expose as much or as little of the configuration information of a solution as you believe necessary for end users. By limiting the configuration information, you install the solution with the configuration that optimizes the performance of the solution and provides the necessary security to run according to your recommendations.

The deployment wizard enables the deployment of solutions either locally or remotely and provides help with the following tasks:

- Selecting tasks to deploy
- Specifying target computers for each task
- Configuring deployment parameters for each task
- Reviewing task summary information
- Deploying one or more tasks
- Monitoring deployment status

Solution launcher

The solution launcher is a utility that helps you start the deployment wizard and deploy a solution directly from a CD or DVD.

With a solution launcher image, you can give your solution directly to end users for easy installation. Creating a solution launcher image is simple. The image can be created by an export wizard within the Software Assembly Toolkit developer. The solution developer should complete the creation and testing of your solution. Then, export a completed solution as a solution launcher image. With the image exported, the solution distributor can use media burning software to create CDs or DVDs of a solution for distribution to end users.

Chapter 3. Planning for and installing the IBM Software Assembly Toolkit

This section provides basic information on understanding the system requirements for and installing the IBM Software Assembly Toolkit.

The IBM Software Assembly Toolkit supports multiple platforms for development and deployment. Before installing the IBM Software Assembly Toolkit, you should verify that the computer where you plan to install the IBM Software Assembly Toolkit, and all computers that you plan to deploy a solution to remotely, meet the minimum system requirements. Refer to the system requirements topic in the information center (<http://publib.boulder.ibm.com/infocenter/satinfo/v3r2/topic/com.ibm.sat.doc/reference/rsatsysr.htm>) for the following information:

- System requirements for IBM Software Assembly Toolkit development
- Supported operating systems for IBM Software Assembly Toolkit development
- Supported operating systems for IBM Software Assembly Toolkit deployment

Installing the IBM Software Assembly Toolkit

This section provides basic information on installing the IBM Software Assembly Toolkit.

The solution developer should install the IBM Software Assembly Toolkit.

Installing the IBM Software Assembly Toolkit on the staging server

Begin the installation of the IBM Software Assembly Toolkit from the IBM Software Assembly Toolkit launchpad. Start the launchpad by unzipping the files and using launchpad.exe on Windows® or launchpad.sh on Linux®.

You can use the launchpad to perform the following tasks:

- Viewing release information
- Viewing prerequisite information
- Installing the IBM Software Assembly Toolkit

Chapter 4. Using the Software Assembly Toolkit

This chapter presents an end-to-end scenario for developing and deploying a total business solution using the Software Assembly Toolkit. It contains an overview of the following tasks:

- Developing a solution
- Testing a solution
- Deploying a solution
- Distributing a solution

Developing a solution



The solution developer completes the development of a solution. To create the solution, the solution developer uses the Software Assembly Toolkit developer to generate application and solution deployment accelerators. The deployment accelerator file uses XML to describe an application or solution. The solution developer writes application deployment accelerators for custom applications. The solution developer must also create a solution deployment accelerator to define the applications that a solution includes.

The Software Assembly Toolkit developer includes several useful resources for solution developers. The Software Assembly Toolkit developer includes custom editors that create XML deployment accelerators for the solution developer as they provide descriptive information about applications or solutions. The Software Assembly Toolkit developer also includes cheat sheets that guide the solution developer through the process of creating a deployment accelerator.

You should decide the method you plan to use for distributing your solution and the licensing that is most appropriate for your solution during solution development. The licensing you decide on for a solution affects areas such as packaging, pricing and support. Consult expert legal counsel for advice on a solution's licensing requirements.

Once a solution has been developed, the solution developer generates the solution and begins testing. Generating the solution produces a file with a .ser extension. You can open this file in the deployment wizard.

Testing a solution

The solution developer needs to test the solution before providing it to the solution distributor or end customer. The Software Assembly Toolkit developer includes a test and debug environment. The solution can be tested in the Software Assembly Toolkit developer with the Test in deployment wizard option. This option launches the deployment wizard inside the Software Assembly Toolkit developer and helps the solution developer to see how the solution is presented to the end customer and to verify that the deployment can be completed successfully. The Software Assembly Toolkit developer provides a plug-in to the Eclipse-based debugger and therefore can be used by a solution developer to debug problems before distribution begins.

Distributing a solution

The solution distributor might distribute a solution as a solution launcher image, or by directly deploying the solution to the end user.

If the solution is provided as a solution launcher image, a media set that contains the complete solution and the deployment wizard is provided with one or more CDs or DVDs. When the first CD or DVD is inserted in the end user's computer, the deployment wizard starts with a solution open and ready to deploy.

If the solution is to be deployed directly to the end user, the deployment wizard is used to deploy the solution, and no media needs to be prepared. In such a deployment scenario, the solution distributor deploys a solution, either locally or remotely, to target computers using the deployment wizard.

Deploying a solution

The solution distributor or the end customer can deploy a solution using the deployment wizard.

The deployment wizard provides a simple graphical interface for deploying a solution.

A solution is presented as a list of tasks in the deployment wizard. The solution developer has specified in the solution which tasks should be visible, required, or optional. The solution developer has also specified the configuration parameters that can be specified by the end user at deployment.

To deploy a solution, perform the following steps:

1. Open the deployment wizard.
2. Click **File > Open**.
3. Locate the file provided by your solution developer with a .ser extension.
4. Click **Open**.
5. The deployment wizard welcome screen is displayed with information provided by your solution developer about your solution. Click **Next**.
6. On the Select Tasks panel, select at least one task to deploy. Click **Next**. Repeat for all Select Tasks panels.
7. On the Specify Targets panel, specify a target computer hostname or IP address and click **Add**. To deploy to more than one target computer, add additional target computer hostnames. To deploy to your computer, enter localhost as the target computer hostname. Click **Next**. Repeat for all Target Computers panels.
8. On the Configure Parameters panel, complete all required configuration parameters. Click **Next**. Repeat for all Specify Parameters panels.
9. On the Summary panel, review the tasks you have configured to deploy.
10. To deploy all configured tasks, click **Deploy All**. To deploy only a specific task, click **Deploy** associated with the task if this option is available.
11. Monitor the deployment status until deployment is complete.

Chapter 5. Other documentation available

This document provides information about other documentation that is available.

The following table provides information about other documentation that you can use:

Table 1. Other documentation

Information unit	Purpose	How to access
Software Assembly Toolkit information center	Describes pertinent product information from installation, development, deployment, and maintenance instructions, to concept and troubleshooting information	On the Web or from the Help menu in the deployment wizard.
Software Assembly Toolkit release notes	Sometimes called a readme, describes product information that was not captured in the Software Assembly Toolkit information center	From the Software Assembly Toolkit Library Web page, the Software Assembly Toolkit CD or DVD.

You can view the Software Assembly Toolkit documentation on the Web at the following URL:

<http://www.ibm.com/software/webservers/expressruntime/library/>

Chapter 6. Troubleshooting

If you encounter errors during a deployment, perform the following tasks to identify the cause of the problem.

- On the Status dialog, click **Detailed Messages**. A table of messages appears in a new dialog. Double-click on a message to view more detailed information and to print the error details.
- Verify that your staging server can communicate with all of the target computers. Use the left navigation in the deployment wizard to click on the Specify Targets link. Click **Test Connections** on each Specify Targets dialog. If the deployment wizard cannot connect to a target computer, verify that the fully-qualified domain name or IP address is correct. If the information for the target computer is correct, contact the computer owner to determine if the target computer is running and connected to a network. If the computer is connected to a network, verify that the security credentials are correct.
- View the log file: <InstallPath>\SolutionEnabler\logs\IRU_DeploymentWizard.log, where <InstallPath> is the location where you installed Software Assembly Toolkit.
- Record any displayed error messages.

Chapter 7. Accessibility

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully.

You can use screen-reader software to hear what is displayed on the user interface of the deployment wizard. You can operate all features using the keyboard instead of the mouse. Software Assembly Toolkit honors system accessibility settings, such as font and color settings. Accelerator and mnemonic keys are enabled throughout Software Assembly Toolkit. These are identified on the Menu bar and its associated pull-down menus.

You can use keys or key combinations to perform operations that can also be done through mouse actions. Many menu actions can be initiated from the keyboard. In those cases, the keyboard equivalent is displayed to the right of the menu item or the shortcut letter is underlined. In addition, the following keyboard shortcuts are enabled:

Tab Navigates through the user interface.

Arrow keys

Navigate within each panel in the user interface.

F3 Decreases size of selected column incrementally.

F4 Increases size of selected column incrementally.

F5 Moves selected column to the left.

F6 Moves selected column to the right

Navigating in Linux

If you have trouble navigating a panel in Linux using CTRL+Tab, use CTRL+ALT+Tab instead. If this is not your default navigation method, refer to your operating system documentation to change the navigation settings.