Sterling B2B Integrator

IBM

Graphical Process Modeler

Version 5.2

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Contents

Graphical Process Modeler

To help you create business process models, Sterling B2B Integrator includes the Graphical Process Modeler (GPM).

The GPM is a Web-deployed graphical interface tool you use in conjunction with Sterling B2B Integrator to create and modify business processes. The GPM converts your graphical business process models into source code, saving you the effort of writing code.
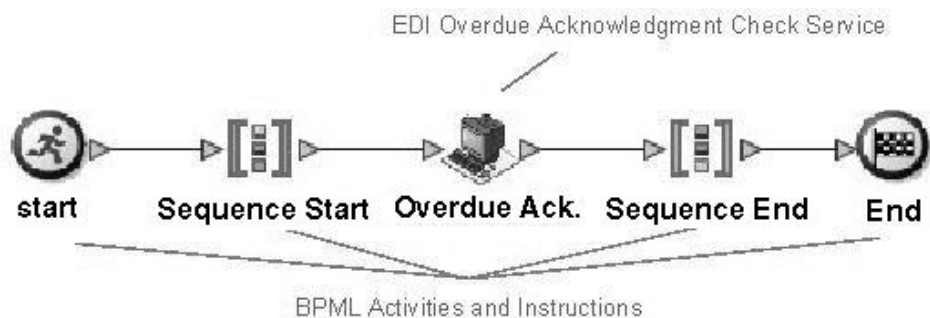
In the GPM interface you construct your business process models, coordinating the flow of activities in a graphical depiction of the ordered steps. The GPM provides icons representing the services, adapters and Business Process Modeling Language (BPML) instructions that make up your process models. In addition, you configure related parameters through the GPM and create rules and conditions within your process models.

You can validate the process models and check them in to Sterling B2B Integrator from within the GPM. To make it easier to work with your business process models in the GPM without having to access the Sterling B2B Integrator interface, the GPM includes its own Source Manager tool, enabling you to lock, check in and check out business process models, and to monitor versions of business process models using a date and time stamp, all from within the GPM.

The GPM recognizes BPML code written in a text editor. Therefore, in the GPM, you can open a .bpml file created in a text editor and view its graphical representation. The GPM enables you to toggle the display between BPML and graphic view.

Example Business Process Model in the GPM

The following figure shows an example of a simple business process model as it appears in the GPM:

The callouts in the figure indicate the types of components depicted by the icons.

High-level Installation Process

Installing the GPM is a multi-step process which should be completed in the order described. To get started using the GPM, you must:

1. Install the GPM. See *Graphical Process Modeler Installion*.
2. Start the GPM. See *Start the GPM*.
3. (Optional) Set your preferences. You can specify settings for things such as language preference, when to validate BPML, and the location on your computer where you want the GPM to save your business process model files. See *Set User Preferences*.

After these steps are completed, you can begin creating business process models. For the step-by-step procedure, see *Create Business Process Models*.

For an introduction to the GPM interface, see *User Interface*.

Everyday Activities and Flow

Your use of the Graphical Process Modeler (GPM) follows your business process modeling goals. Before you create a business process model, carefully plan it, so that you know which components you must include, as well as how you must configure the services and activities within it. For instructions, see *Planning Your Business Process Models*.

As you familiarize yourself with the GPM components, you will develop your own favorite methods of using it and navigating in the layers of your process models, as well as your own preferred order of completing the steps involved in creating and modifying business process models.

The following table describes the activities generally involved in creating business process models in the GPM. You can complete the activities in different order, but the table is arranged in a logical order as a starting point for your reference.

Activity	Description
Check out a business process model.	To modify an existing business process model that is checked in to Sterling B2B Integrator, you must check the process model out before you can work with it in the GPM. For instructions, see *Modifying and Managing Business Process Models*.
Determine which stencils you need to display.	Stencils are palettes of the services and activities you include in your process models. Because hundreds of services are represented, each stencil lists a given category of services. You will want to display only the ones you are likely to need for the process model you are working on. For information about available stencils and how to display them, see *GPM Stencils*.
Arrange icons in workspace.	This activity involves: • Dragging and dropping the icons representing the services and BPML activities that comprise your process model into the workspace • Arranging the icons according to the desired flow • Linking the icons

Activity	Description
Configure parameters for services, activities and links.	Some BPML activities, some links between your services and activities, and most services require some configuration in the GPM, depending on the task your business process model must accomplish. Use *GPM element editors* to view and modify parameters for the different components, or elements, of business process models. For information, see *Element Editors in the GPM*.
Add decision points, rules and conditions.	Rules and conditions can be simple instructions or more complex directions defined using XPath expressions. The GPM enables you to assign rules using an element editor, as well as to define them using the Rule Manager and XPath Expression Builder tools. For information, see: • *Defining and Assigning Rules and Conditions* • *GPM XPath Expression Builder*
Make your process model descriptive for future reference.	• Name the components of your process models in meaningful ways. • Use your company's naming conventions to name your process model when you save it. • Add annotations to the graphical display of your process model. For information, see: - *Modifying Annotations- GPM Annotation Tool*
Save, validate, and check in the model.	After you create or modify a process model, you can simply save it or save and validate it, and check it in to Sterling B2B Integrator. For information, see *Checking in a Business Process Model*.

Install the Graphical Process Modeler

Although the Graphical Process Modeler (GPM) is an included feature of Sterling B2B Integrator, it does not automatically install with Sterling B2B Integrator, because it operates as a separate, Web-deployed application. The GPM must be installed on each computer from which a user will access Sterling B2B Integrator and work with the GPM. This enables Sterling B2B Integrator and the GPM to interact. For example, you can check in and out business process models from the GPM, and update a service configuration in the GPM after making changes to it in Sterling B2B Integrator.

About this task

To install the GPM, complete these steps on the client computer on which you want to use the GPM:

Procedure

1. Uninstall all old versions/instances of Java™ Web Start from the client computer. Leaving these on the system will cause an error when attempting to load the GPM from the Sterling B2B Integrator user interface.

2. Download the correct JRE according to the System Requirements.
3. Install the JRE on the client system.
4. Log in to Sterling B2B Integrator and download the GPM:
   a. Navigate to the Admin Console Home page.
   b. Next to **Run Graphical Process Modeler**, click **Go!** The Java Web Start window displays and begins loading GPM components.
   c. Answer any prompts appropriately that appear.
   d. When prompted, use your Sterling B2B Integrator User ID and Password to log in to the GPM . The GPM opens.
5. Set your preferences. See *Set Up Your GPM*.

Results

You can now create and modify business process models.

Create a Desktop Graphical Process Modeler Shortcut
About this task

After you download and install the Graphical Process Modeler (GPM) on a client computer, you can add a **Modeler** menu item to the **Programs** menu and create a shortcut icon on the Desktop to start the GPM locally.

To create a Desktop Shortcut for the GPM:

Procedure
1. On a client pc on which you want to use the GPM, from the Windows **Start** menu, select **Run**.
2. Type `javaws -viewer` and click **OK**. The **Java Cache Viewer** appears.
3. From the **Application** column, select **Modeler**.
4. From the **Application** menu, select **Install shortcuts to the selected application**. The system installs a shortcut to your **Programs** menu and an icon on your Desktop.

Graphical Process Modeler Startup

The first time you start the Graphical Process Modeler (GPM) on a given computer, you must do so from within the Sterling B2B Integrator user interface. This initiates the GPM installation on that client PC.

Note: Each time you start the GPM, Java Web Start checks for a connection to the Web server to determine whether a new version of the GPM is available. When a new version is available, Java Web Start automatically updates the files on the client computer and opens the GPM.

Any time *after* the initial GPM startup, you can start it in either of the following ways:

• Inside the Sterling B2B Integrator User Interface

  The GPM is started from a selection made from the Sterling B2B Integrator user interface. Both the GPM and your network connection to Sterling B2B Integrator are open. You must log into the GPM using your Sterling B2B Integrator User ID and Password. You have complete functionality.

• Outside of Sterling B2B Integrator

The GPM is started from a client PC locally. This is known as "working offline." You do not log in to Sterling B2B Integrator, and the GPM cannot interact with Sterling B2B Integrator. You still must log into the GPM using your Sterling B2B Integrator User ID and Password. You have restricted functionality.

Note: The offline GPM mode is only possible if the Sterling B2B Integrator instance is inaccessible over the network. If network connectivity exists, then the online mode is the only option.

The ability to work in the GPM without starting Sterling B2B Integrator offers you the convenience of creating and modifying business process models without requiring a network connection. Because your business process models save directly to your hard drive, you can work on them at your convenience and at remote locations, and then check them in to Sterling B2B Integrator later, after you log in.

Because the GPM and Sterling B2B Integrator can interact (such as when you update the service stencils in the GPM), working in the GPM from outside Sterling B2B Integrator involves the following restrictions:
* You cannot refresh (update from Sterling B2B Integrator) the services listed in the GPM stencils
* You cannot check business process models into or out of Sterling B2B Integrator)

Plan ahead before you work offline in the GPM. For example, if you will need any new service configurations, you must create them in Sterling B2B Integrator and refresh the services in the GPM (select **View** > **Refresh Services**) before you shut down Sterling B2B Integrator and work offline in the GPM.

Similarly, if you plan to modify an existing process model, you must check it out while Sterling B2B Integrator is running, before you shut it down and work offline in the GPM.

Start the Graphical Process Modeler Inside Sterling B2B Integrator

About this task

This method must be used the first time you start the Graphical Process Modeler (GPM). To start the GPM from inside the Sterling B2B Integrator user interface:

Procedure

1. Complete one of the following tasks:
   * From the Admin Console Home page, in the **Tools** section, next to **Run Graphical Process Modeler**, click **Go!**
   * From the Administration menu, select **Business Process** > **Manager**, and in the Graphical Modeling pane, next to **Run Graphical Process Modeler**, click **Go!**
2. The **Log In** dialog box displays. Type your Sterling B2B Integrator **User ID** and **Password**, click **OK**.

Results

You can now create and modify business process models. Because you are logged in to Sterling B2B Integrator, you can check business process models in and out.

What to do next

The first time you start the GPM, set your preferences. See *Set Up Your GPM*.

Start the Graphical Process Modeler Outside of Sterling B2B Integrator

Before you begin

This method can be used anytime after the initial installation of the Graphical Process Modeler (GPM), but only if you cannot access Sterling B2B Integrator over a network. To start the GPM offline, you must have installed a shortcut to your Programs menu and Desktop.

Note: Certain restrictions apply when using the GPM offline. For information, see "Graphical Process Modeler Startup" on page 4.

About this task

To start the GPM outside of Sterling B2B Integrator:

Procedure

1. Complete one of the following tasks:
   - From the Start menu on a client computer, select **Programs** > **Modeler (GPM application)**.
   - From the Desktop on a client computer, double-click the **Modeler** shortcut.
2. The **Log In** dialog box displays. Type your Sterling B2B Integrator **User ID** and **Password**, click **OK**.

Results

You can now create and modify business process models locally on the client computer. Because you are not logged in to Sterling B2B Integrator, you cannot check business process models in and out.
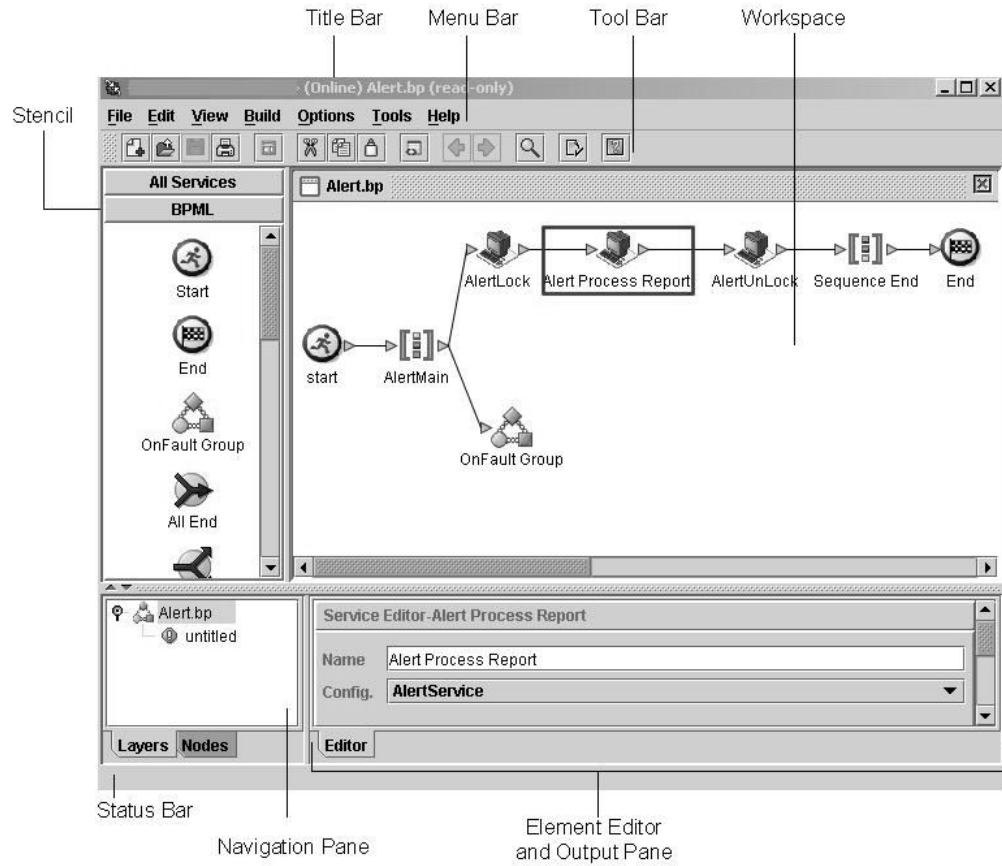
What to do next

The first time you start the GPM, set your preferences. See *Set Up Your GPM*.

Graphical Process Modeler User Interface

The Graphical Process Modeler (GPM) is designed to simplify the tasks of creating and modifying business process models through drag-and-drop technology and tools for navigation and configuration.

The following figure shows the GPM user interface and its components when a business process model document is open (select **File** > **New** to activate the workspace). To create business process models, drag and drop icons from the stencils into the workspace.

The following table provides information about the components identified in the figure:

Component	Description
Stencil	A stencil is a graphical palette of icons for dragging and dropping into your business process models in the workspace. The icons represent components you include in your process models—the services, adapters, and Business Process Modeling Language (BPML) instructions that perform tasks.The GPM includes a variety of stencils, each containing icons of a specific category. You can select the stencils to display in the GPM interface at any time (from the **View** menu, select **Stencil** > *<stencil name>*. For stencil descriptions, see *GPM Stencils*.

Component	Description
Title Bar	Displays: • IP address and port of your associated installation of Sterling B2B Integrator • The word "(Offline)" or "(Online)" to indicate whether you are working online (this means with an Internet connection open) or offline (with no Internet connection open) • File name of the business process model document that is currently open in the GPM
Menu Bar	Enables you to select options related to creating, modifying, and checking in and out your business process models. • Use the Edit menu to cut, copy, paste, delete, clear all, and select all components displayed on the workspace. Procedural documentation for working with business process models describes the other functions you can access from this menu. • The View menu enables you to customize the display. For information, see *Customizing the GPM Interface Display.*
Tool Bar	Displays buttons that provide quick access to commonly used commands. Inactive buttons become active when you select a service icon in the workspace.
Workspace	Area in the GPM interface to which you can drag and drop icons to create a business process model. Within the workspace, click and drag to organize your process models, and select components to configure them. You can also view the BPML source code of a business process model in the workspace. To view BPML source code, from the **View** menu, select **Source**.
Status Bar	Displays a description of a menu option, toolbar button, or service icon (in a stencil), when you point to it.
Navigation Pane	Displays a tree diagram of the business process model, depicting any subflows (called *layers* in this pane) and the steps contained within each subflow (these are the *nodes*). The Navigation pane enables you to display a subflow in the workspace by selecting it from the Layers tab, and to open element editors for selected nodes by selecting a node from the Nodes tab.The Navigation pane is especially helpful when you are working with complex processes that contain many subflows.For more information, see *Navigating Layers and Nodes in the GPM Interface.*

Component	Description
Element Editor and Output Pane	Displays either element editors for a selected component of the business process model, or the output for system messages.
	• Element editors enable you to view and configure parameters for components of your business process models. Double click a component in the workspace to display the element editor to configure it. For descriptions of the different element editors, see *Element Editors in the GPM*.
	• The Output tab displays error, validation, and system messages. This pane opens automatically when you validate a model or view source code.

Navigating Layers and Nodes in the User Interface

Working with graphical business process models often requires you to navigate sometimes complex or extensive arrangements of process components. For your convenience, the Graphical Process Modeler (GPM) contains a Navigation pane for quick navigating among components.
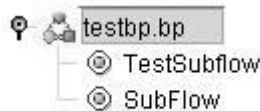
The Navigation pane makes it easy to select from among the different subflows and components of your business process model, using the Layers and Nodes tabs.

Layers

Layers are subflows contained within the business process model. The Layers tab depicts a graphical representation of the structure of the parent business process model displayed in the workspace, including subflows. To expand the structure to show the layers, double click the icon in the Navigation pane that represents the business process model.

When you expand the view, the structure shows any subflow layers contained within the business process model. The following figure illustrates a process model with two layers, when the view is expanded.

To work with the subflow, select the appropriate layer from the list. The subflow activities display in the workspace.

Nodes

Nodes are the steps in the business process model. Each BPML activity, service, adapter, and subflow is a node.

For a selected layer, the Nodes tab displays an alphabetical list of the nodes in the layer. When you select a node from the list, the GPM displays in the workspace the section of the business process model containing the selected node, with the node selected in the workspace display.

To use the Nodes tab, select a layer from the **Layers** tab and then click the **Node** tab to view:

- The list of nodes in the layer, displayed in the Navigation pane
- The subflow or parent business process model that comprises the layer, displayed in the workspace

If the element editor is open, when you select an icon on the Node tab, configurable parameters for the node display in the applicable element editor.

Go To Command

When you are working with a business process model that includes multiple subflows, the Go To (Previous/Next) command enables you to return to the previous flow view or display the next flow view.

To use the command, select **View** > **Go To** > **Previous** or **Next**.

Customize the User Interface Display

The View menu enables you to customize the Graphical Process Modeler (GPM) display. In the View menu, you can select certain options you want to display or hide. When these options have a check mark next to them, they display.

Note: The option selections differ depending on if you have a file open or not.

Options to display or hide are:

- Source/Graph – Enables you to switch between the graphical representation and the BPML source code of a business process model on the workspace.
- Toolbar – Displays or hides the toolbar containing shortcut command buttons.
- Status Bar – Displays or hides the status bar across the bottom of the page.
- Output – Opens and closes the Output pane, which displays error, validation, and system messages. This pane opens automatically when the GPM encounters an error during validation, even when you have not selected the option.
- Navigation – Opens and closes the Navigation pane.
- Stencil – Displays the menu that lists stencils. For information, see *Stencils*.
- Auto Layout – Automatically aligns icons in the workspace.
- Zoom – Enables you to change the magnification of a business process model view. Zoom sets the magnification to 50, 75, 100, 150, or 200 percent.
- Grid – Enables you to select and displays dotted or line grid markers, or no grid markers. The grid points enable you to align icons on the workspace.

Set User Preferences

You can choose from a variety of settings in the Graphical Process Modeler (GPM) to specify operations handling according to your own preferences. Setting up GPM preferences before using the GPM is not required, however setting preferences in advance enables you to be certain of the order in which steps such as validation

will take place in your procedures, and where the GPM will store your process models when you save them. You can also modify the display according your needs.

About this task

If multiple users log in to your computer using the same user ID and password, and use the GPM, they share the GPM and therefore any preference settings. In this case, users can re-set their preferences whenever they use the GPM.To set your preferences:

Procedure

1. Select **Options** > **Preferences**.
2. On the **General** tab, select the appropriate check box to indicate whether the GPM should automatically validate the Business Process Modeling Language (BPML) each time you save a process model, or if you want the GPM to display the Validate on Save dialog box each time you save, so that you can determine then whether to validate the model you are working on.
3. Click the **Source Manager** tab.
4. Determine if you want to use the Expert Mode for checking business process models into Sterling B2B Integrator when you use the GPM Source Manager. Select the **Use Expert Mode** check box or leave the selection blank. Expert Mode displays one dialog box containing all of the parameters related to checking in a business process model to Sterling B2B Integrator. When you do not select Expert Mode, the parameters selections display in a series of dialog boxes, which breaks up the options into smaller groups for novice users.
5. Click the **File Location** tab.
6. Enter or select a default directory to which the GPM will save all business process documents (.bp files) on your client computer.
7. Click the **Locale** tab.
8. Select a default locale for your installation.
9. Click the **Service Editor** tab.
10. Determine whether you want to be able to override parameters for service configurations as they are currently saved in Sterling B2B Integrator. If you do not select this option, some predefined service configuration parameters are not editable in the GPM.
11. Click **OK**. Your new preference settings are applied to the current session and saved. They are automatically applied each time the GPM is started.

Results

The GPM also enables you to customize the display to facilitate your work habits. For information, see *Customize the User Interface Display*.

Element Editors

Element editors enable you to view and modify parameters for different components, or elements, of business process models. These elements are the icons representing services, adapters and Business Process Modeling Language (BPML) activities, and the edges, or links (represented by lines), that connect them and to which you can assign rules.

BPML activities and a small number of services are preconfigured when you install Sterling B2B Integrator. However, some BPML activities and most services require you to perform additional configuration in the Graphical Process Modeler (GPM), depending on the task your business process model must accomplish.

The GPM has five element editors, each of which provides configuration parameters specific to a selected element. When you select an icon in the workspace, the appropriate element editor for that edge, service or BPML activity displays.

The following table describes the GPM element editors:

Element Editor	Description
Consume Editor	Enables you to indicate the message a business process or subflow should expect, and the name of the participant sending that message.
Edge Editor	Enables you to assign rules to the links that run from a Choice Start icon to the next icons at a decision point in a business process model. The Edge editor enables you to select from all previously created rules.
Produce Editor	Create your own name-value pairs, adding XPath expressions when needed, to define the path to name-value pairs that appear in business process data. Enables you to configure parameters for each service and adapter. The parameter fields correspond to the parameter information described in the reference documentation for the selected service.
Property Editor	Enables you to configure BPML activities that require additional information, such as Choice and Assign.You can also use the Property editor to define values that indicate errors associated with the activity. If the business process encounters these values while running, Sterling B2B Integrator generates a report that describes the error.
If you need information about the parameters to enter for a service or adapter, review the parameter specifications in the reference documentation for the service.	Enables you to configure parameters for each service and adapter. The parameter fields correspond to the parameter information described in the reference documentation for the selected service. You can use the Service editor to: • Enter and modify values for parameters. • View protected parameter values that cannot be edited. • Use the preset values in the editor as a basis for defining conditions for configuration parameters. • Create your own name-value pairs, adding XPath expressions when needed, to define the path to name-value pairs that appear in business process data.

If you need information about the parameters to enter for a service or adapter, review the parameter specifications in the reference documentation for the service.

Stencils

Stencils are palettes that you can display in the Graphical Process Modeler (GPM) and from which you select icons representing activities to include in your business process models. See *GPM Interface* for an illustration of the stencils pane.

Each stencil contains labeled icons for a specific category of installed services or Business Process Modeling Language (BPML) activities.

You can choose from a menu to display the stencils containing icons you need as you build business process models. From the **View** menu, select **Stencil** and select the desired stencil. When you open more than one stencil, the stencils display in a tiered pane. With multiple stencils open, you can click the stencil name at the top or bottom of the pane to display the stencil you need as topmost in the list.

To close a stencil, right click on the stencil title and select **Close Current Stencil** or **Close All Stencils**.

Add New Services and Service Configurations to the Stencils
About this task

Periodically, you may install additional services and adapters to Sterling B2B Integrator or update service configurations created in the Sterling B2B Integrator user interface. Perform this procedure any time you need to update the Graphical Process Modeler (GPM) stencils to display the most current services and adapters installed with Sterling B2B Integrator .

You must be working with the GPM online (Sterling B2B Integrator must be running) to use this command.

To refresh the listing of Services and Service configurations in the GPM:

Procedure
1. Start the GPM.
2. From the **View** menu, select **Refresh Services**.

Results

Perform this procedure any time you need to update the GPM stencils to display the most current services and adapters installed with Sterling B2B Integrator.

Select a Stencil
About this task

Stencil names describe the category or sub-category of services and adapters for the icons they contain, with the exception of the Business Process Modeling Language (BPML) stencil. The BPML stencil contains icons only for BPML activities and instructions that coordinate the flow of activities within a business process model.

To select a stencil for use in the Graphical Process Modeler (GPM):

Procedure

1. Start the GPM.
2. From the **View** menu, select **Stencil** > *Stencil_Name*. Look for the category of service and any sub-category that you need. Depending on the stencil category selected, there may be another level of stencils to select from.
3. If you want to display all services (but not BPML activities) in one single stencil, from the View menu select **View** > **Stencil** > **All Services**.

Example

For example, the ebXML stencil contains icons for services that implement business-to-business data exchange using the ebXML format, such as the ebXML Digital Signature service and the ebXML Profile service. In this example, the category is Internet B2B, and the sub-category is ebXML. From the **View** menu, you would select **Stencil** > **Internet B2B** > **ebXML**.

Note: If you do not have a license for a service or adapter that you include in a business process model, the business process will fail when you attempt to run it in Sterling B2B Integrator.

What to do next

For more information, see *GPM Stencil Descriptions*.

Stencil Descriptions

The following table describes the Graphical Process Modeler (GPM) stencils. The table is arranged alphabetically by stencil category.

Category / Stencil Name	Contains Icons for:
All / All Services	All installed services (not including activities in the Business Process Modeling Language (BPML) stencil). Service icons display in alphabetical order. All other stencils are subsets of this stencil.
Applications / ERP	Adapters installed to connect to external, Enterprise Resource Planning applications, such as: • PeopleSoft CRM® (Vantive) adapter • SAP® R/3® adapter
Applications / IBM®	Adapters installed to connect to external, IBM applications, such as: • IBM Sterling Connect:Direct® Requester adapter and related services • IBM Sterling Connect:Enterprise® UNIX Server adapter and related services • IBM Sterling Gentran:Server® Windows adapter • IBM Sterling Information Broker®
B2B Protocols / FTP Client	Services that complete B2B communication using File Transfer Protocol, such as: • FTP Client Password service • FTP Client Server service

Category / Stencil Name	Contains Icons for:
B2B Protocols / HTTP Client	Services that complete B2B communication using Hypertext Transfer Protocol, such as: • HTTP Client Post service • HTTP Client Method service
B2B Protocols / SFTP Client	Services that complete B2B communication using Secure Shell File Transfer Protocol (SSH/SFTP), such as: • SFTP Client PUT service • SFTP Client GET service
BPML / BPML	Commonly used BPML activities and instructions, such as: • Start • End • Assign • Join
Communications / Communications	Services and adapters that enable Sterling B2B Integrator to send and receive messages using the standard Internet communications protocols, such as: • B2B HTTP Client adapter and related services • FTP Client adapter and related services • HTTP Client adapter and related services • MIME service
Custom / Custom	Custom-created services, after your software developer has developed, installed, and configured them.
EDI / ACH	Services related to EDI transaction processing requirements using Automated Clearing House standards, such as: • ACH Enveloping service • ACH Deenvelope service
EDI / CII	Services related to EDI transaction processing requirements using Japanese Center for Informatization of Industry standards, such as: • CII Deenvelope service • Envelope service
EDI / EDIFACT	Services related to EDI transaction processing requirements using EDIFACT standards, such as: • EDI, UNB, UNH, Deevenlope and Envelope services • Generate and Reconcile Control services
EDI / TRADACOMS	Services related to EDI transaction processing requirements using TRADACOMS standards, such as: • EDI Envelope service • Generic Envelope service

Category / Stencil Name	Contains Icons for:
EDI / X12	Services related to EDI transaction processing requirements using Accredited Standards Committee X12 standards, such as: • 997 Generator and Reconcile services • EDI, GS, ISA, ST Deenvelope and Envelope services • TA1 Generator and Reconcile services
Internet B2B / E5	Services that implement business-to-business data exchange using the E5 (clients and servers) format, such as: • E5 Client Configuration service • E5 Obtain service
Internet B2B / ebXML	Services that implement business-to-business data exchange using the ebXML format, such as: • ebXML Digital Signature service • ebXML Profile service
Internet B2B / EDIINT	Services that implement business-to-business data exchange using the EDIINT protocol, such as: • EDIINT Acknowledge Check service • EDIINT Message service • EDIINT Pipeline service
Internet B2B / Mailbox	Services that implement business-to-business data exchange using mailbox format, such as: • Mailbox Evaluation Routing Rule service • Mailbox Extract Begin service
Internet B2B / Rosettanet	Services that implement business-to-business data exchange using RosettaNet™ RNIF standards, such as: • RNIF 20 MessageBuilder service • RN Profile service • RosettaNet Sender service
Internet B2B / SOAP	Services that implement business-to-business data exchange using Simple Object Access Protocol, such as: • SOAP Inbound service • SOAP Outbound service
Internet B2B / Transora	Services that implement business-to-business data exchange using Transora™ exchange methods, such as: • TDC Document XPath Replace service • Transora HTTP AS2 DocHandler service • Transora HTTP AS2 MDNHandler service

Category / Stencil Name	Contains Icons for:
Messaging / Instant Messaging	Services that enable Sterling B2B Integrator to send and receive instant messages, such as: • IM Send Message service • IM Receive Message service
Messaging / Queuing	Adapters that enable Sterling B2B Integrator to send messages to and from remote messaging queues, such as: • MSMQ adapter • Oracle AQ JMS Queue adapter • Oracle AQ JMS Topic adapter • TIBCO adapter • Vitria adapter • WebMethods Publisher adapter • WebMethods Subscriber adapter • WebSphereMQ adapter • WebSphereMQ Suite
Messaging / WebSphereMQSuite	Services that enable you to script a complete MQ session using a business process, such as: • WebSphere® MQ Suite Open Session service • WebSphere MQ Suite Get Message service • WebSphere MQ Suite Commit service
Process Controls / Process Controls	Services that: • Enable custom control at an intricate level (for example, at each step) when running business processes • Can improve business process performance For example, the Execution Control service enables you to change the priority queue previously defined with regard to system allocation of resources, when running business processes. Examples of Process Control services are: • Cache Refresh service • Execution Control service • Wait services

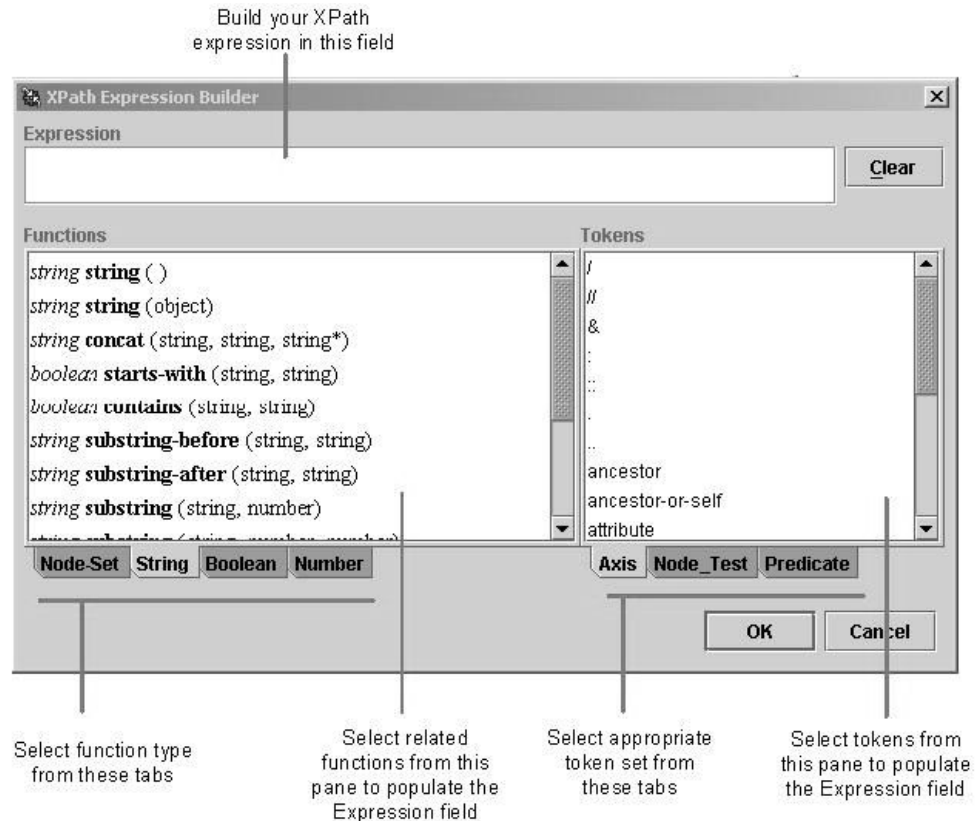| Category / Stencil Name	Contains Icons for:
Retiring / Retiring	Services and adapters that will soon no longer be supported in Sterling B2B Integrator. In order to improve performance, enhance features, or ensure compatibility with recent product releases, IBM periodically retires services and adapters and makes other services and adapters available to fill the need. If you are currently using services or adapters listed in the Retiring stencil, you must replace these services and adapters in your business process models with other services and adapters.Services and adapters listed in the Retiring stencil are supported for the current release of Sterling B2B Integrator. However, to ensure that you employ the most current capability, avoid using them.
Sync Mode	Services that can run in Sync mode. Sync mode holds a single processing thread until it has completed its work. Services that are not included are those in the following categories: • Performs Waiting or Waiting on IO • Split • Join • Invoke sync • Produce/Consume • All Notify Complete services
System / System	Services and adapters that enable business processes to interact with hardware and software resources such as application components, file systems, operating systems, and databases, both internal and external to Sterling B2B Integrator, such as: • Command Line Adapter 2 • File System adapter • Java™ Database Connectivity (JDBC™) adapter • Lightweight Java Database Connectivity (JDBC) adapter
Translation / Translation	Services that translate or transform data using maps created with the Map Editor, such as: • Translation service • Typing service • XML Encoder service • XSLT service

Category / Stencil Name	Contains Icons for:
Transport / Transport	Adapters that offer additional options that enable Sterling B2B Integrator to communicate with local or remote servers and exchange data, such as: • Lightweight Directory Access Protocol (LDAP) adapter • Remote Method Invocation (RMI) adapter • Simple Network Management Protocol (SNMP) Trap adapter
Web Extensions / Web Extensions	Services that support Web services technologies. Web services directly invoke application function calls over the Internet. Examples of Web Extensions services are: • Human Interaction Document Loader service • Human Interaction Event and Query services

XPath Expression Builder

Note: This topic assumes familiarity with XML Path language (XPath). If you need more information about XPath, see the World Wide Web Consortium at www.w3c.org and the Business Process Modeling Language (BPML) documentation.

The XPath Expression Builder makes creating XPath expressions to use in your business process models more convenient. Function and token menus enable you to select the functions and tokens to build an expression.
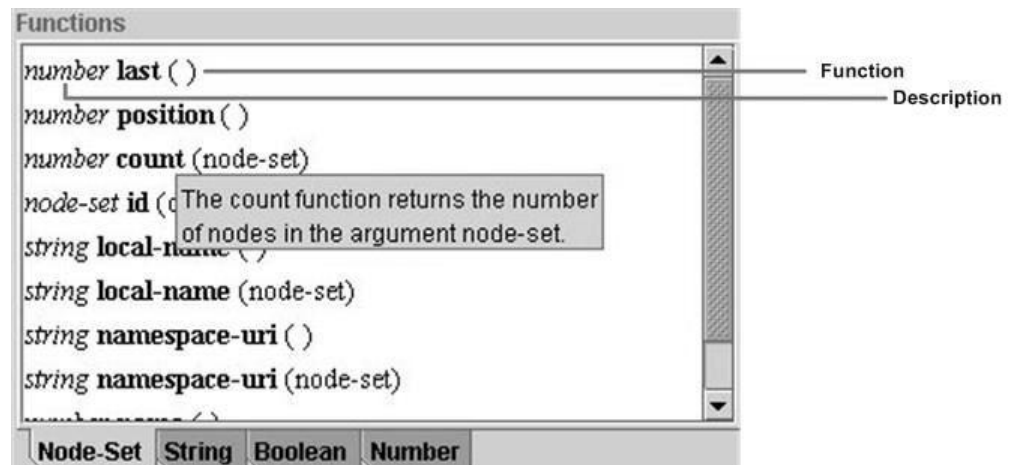
The following figure shows the XPath Expression Builder. For more information, see *Defining and Assigning Rules and Conditions* under *Managing Business Processes*.

Build your XPath
expression in this field

Select function type
from these tabs

Select related
functions from this
pane to populate the
Expression field

Select appropriate
token set from
these tabs

Select tokens from
this pane to populate
the Expression field

The Expression Builder provides descriptive information to help you make your choices:

* When you mouse over a function or token, pop-up help describes the selection.
* Function selections are comprised of two parts. The first part, in italics, is descriptive of the function. The second part, in bold text, is the actual code for the XPath function you are selecting. For example, the *number* **last** ( ) function selection indicates that the **last** function returns a number.

The following figure shows a pop-up description and indicates the parts of a function selection:

The XPath Expression Builder supports several function types and token sets. To build XPath expressions, you must be familiar with the expression type you need and understand the functions and tokens used in the expression types. For descriptions of XPath function types and tokens, view the XPath Tutorial at http://www.w3c.org.

Remember that you cannot use functions and tokens in Sterling B2B Integratorthat are not supported in the XPath Expression Builder, with the following exceptions:

- DocToDOM
- DOMToDoc

  For information about these exceptions, see the *BPML documentation*.

The following table describes the function types supported by the XPath Expression Builder:

Function type	Description
Node-Set	Used to obtain information from an XML document, such as counting purchase orders in a node set. Also: - Defines a set of sequential context-nodes - Specifies what information to process or return for the set of context-nodes
String	Perform basic string operations, such as: - Finding the length of a string - Comparing a string - Changing letters from uppercase to lowercase - Modifying the text content of XML elements or attributes - Converting an argument of any type
Boolean	Specifies a Boolean argument (using either the true or false state) that can include predicates and return the result.
Number	Manipulate numbers, such as: - Specifying a numeric function for adding groups of numbers - Finding the nearest integer to a number - Performing basic arithmetic operations

The following table describes the three token sets supported by the XPath Expression Builder:

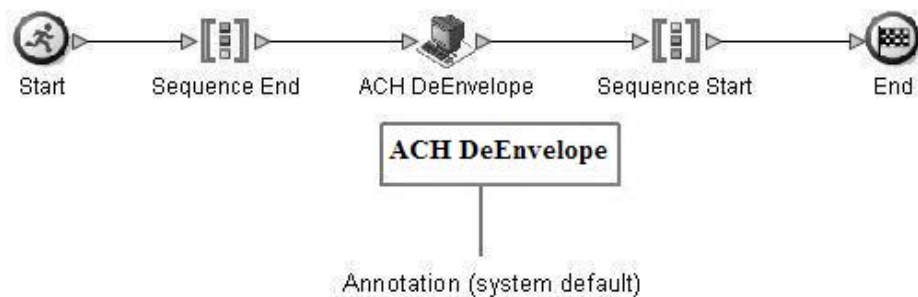| Token Set	Use to:
Axis	Define the direction of your search by using keywords, including: - Attributes - Child elements (default) - Descendants of the child elements - Parent elements - Ancestor elements

Token Set	Use to:
Node Test	Indicate the name of the node for which to search. **Note:** Insert the name of the node test after the resolution operator (::) that follows the axis.
Predicate	Insert a relational operator to test each node in the set of context-nodes of a location path. **Note:** Predicates can use Boolean operators.

Annotation Tool

The Annotation tool enables you to add customized comments such as descriptive names or explanations, for your reference, to the icons in the graphic display of your business process models.

The Graphical Process Modeler (GPM) automatically includes annotations with all icons. When you pause with your mouse arrow over an icon or the name of an icon in the workspace, the annotation for the icon pops up. Using the Annotation tool, you can modify the annotations so that they are more useful for you.

The following figure illustrates an annotation in a simple business process model:

The GPM does not store annotations in the Business Process Modeling Language (BPML) content of a business process model, therefore, they display only in the GPM representation of a business process model, not in the source BPML. For the same reason, if you edit and save a process model directly in the source BPML, the annotations will no longer be part of the business process model.

Uninstall the Graphical Process Modeler

If you have more than one copy of the Graphical Process Modeler (GPM) installed—for example, if you have installed a copy to use for testing and a copy to use for production—you can remove a copy of the GPM using the Java Application Cache Viewer.

About this task

To remove a copy of the GPM:

Procedure

1. From the Windows **Start** menu, select **Run**.
2. Type `javaws -viewer` and click **OK**. The **Java Cache Viewer** appears.
3. From the **Application** column, select the **Modeler** (or the copy of the GPM) that you want to remove.
4. Click **Remove selected items**. The selected copy of the GPM is removed from the client computer.

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