

Gentran Integration Suite™

Graphical Process Modeler Guide

Version 4.2

Sterling Commerce
An IBM Company

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Introduction to the Graphical Process Modeler

To help you create business process models, Gentran Integration Suite includes the Graphical Process Modeler (GPM). The GPM is a Web-deployed graphical interface tool you use in conjunction with Gentran Integration Suite to create and modify business processes. The GPM converts your graphical business process models into source code, saving you the effort of writing code.

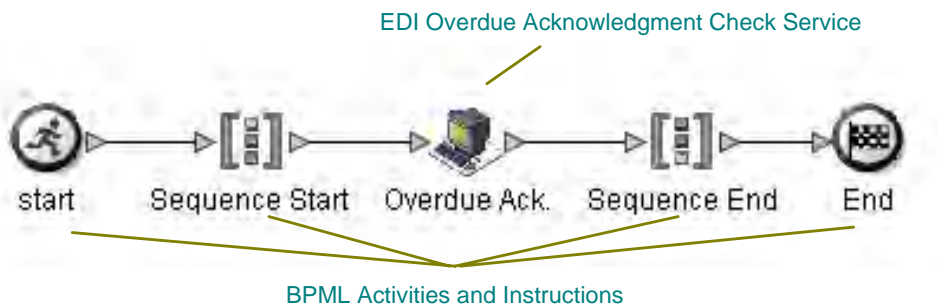
In the GPM interface you construct your business process models, coordinating the flow of activities in a graphical depiction of the ordered steps. The GPM provides icons representing the services, adapters and BPML instructions that make up your process models. In addition, you configure related parameters through the GPM and create rules and conditions within your process models.

You can validate the process models and check them in to Gentran Integration Suite from within the GPM. To make it easier to work with your business process models in the GPM without having to access the Gentran Integration Suite 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.

Overview of Using the GPM

To get started using the GPM, you must:

1. Install the GPM. See *Installing the Graphical Process Modeler* on page 7.
2. Start the GPM. See *Starting the GPM* on page 9.

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 *Setting Up Your GPM* on page 14.

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

For an introduction to the GPM interface, see *The GPM Interface* on page 11.

Everyday Activities and Flow

Your use of the 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 Gentran Integration Suite, you must check the process model out before you can work with it in the GPM. For instructions, see <i>Modifying and Managing Business Process Models</i> .
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 <i>GPM Stencils</i> on page 17.
Arrange icons in workspace.	This activity involves: <ul style="list-style-type: none"> ◆ 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
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 <i>GPM element editors</i> to view and modify parameters for the different components, or elements, of business process models. For information, see <i>Element Editors in the GPM</i> on page 16.

Activity	Description
Add decision points, rules and conditions.	<p>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:</p> <ul style="list-style-type: none"> ◆ <i>Defining and Assigning Rules and Conditions</i> ◆ <i>GPM XPath Expression Builder</i> on page 23
Make your process model descriptive for future reference.	<ul style="list-style-type: none"> ◆ 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: <ul style="list-style-type: none"> - <i>Modifying Annotations</i> - <i>GPM Annotation Tool</i> on page 26
Save, validate, and check in the model.	<p>After you create or modify a process model, you can simply save it or save and validate it, and check it in to Gentran Integration Suite. For information, see <i>Checking in a Business Process Model</i>.</p>

Installing the Graphical Process Modeler

While the GPM is an included feature of Gentran Integration Suite, it does not automatically install with Gentran Integration Suite, because it operates as a separate, Web-deployed application. The GPM must be installed on each computer from which a user will access Gentran Integration Suite and work with the GPM.

If you use multiple copies of Gentran Integration Suite, you must install a separate copy of the GPM for each. This enables Gentran Integration Suite 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 Gentran Integration Suite.

GPM System Requirements

Gentran Integration Suite uses the Java™ Web Start application to start the GPM. Java Web Start requires approximately 5.5 MB of disk space on the client computer. The minimum recommended available disk space for Java Web Start and the GPM is 100 MB.

GPM Installation Procedure

To install the GPM, you must first log in to Gentran Integration Suite using a login ID that has permission to create and manage business processes.

To install the GPM:

1. Download Java Web Start, the tool Gentran Integration Suite uses to ensure proper deployment of the GPM, by completing the following tasks:
 - a. Complete one of the following:
 - ◆ From the Admin Console Home page, in the Tools section, click **Download** next to **Java Web Start**.
 - ◆ From the **Business Process** menu, select **Manager**, and in the Graphical Modeling section, click **Download** next to Java Web Start.
 - b. In the **File Download** dialog box, select the **Save** option and click **OK**.
 - c. In the **Save as** dialog box, select a directory on your client computer and click **Save** to begin downloading Java Web Start. The download may require several minutes, depending on the speed of your connection.
 - d. When the download completes, close the **Download complete** dialog box if it remains open.
2. Open the directory where you downloaded the file for Java Web Start.
3. Double-click the file **javaws-1_0_1_02-win-int-rt.exe** to begin the installation process.
4. Read the license agreement and click **Accept**.
5. In the **Installation Directory** dialog box, either accept the default directory or click **Browse** to select another directory to install Java Web Start, and click **Next**.

6. When you receive a message that setup was unable to detect a usable Java 2 Runtime Environment, either accept the default installation directory or click **Browse** to select another installation directory, and then click **OK**.

The **Installing Files** dialog box opens and displays the in-progress installation. When the installation is complete, the setup program prompts you to read the Readme file.

You can now start the GPM. See *Starting the GPM* on page 9.

Starting the GPM

The first time you start the GPM on a given computer, you must do so from within the Gentran Integration Suite interface. Each time you start the GPM application, 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 initial GPM startup, you can start it in either of the following ways:

◆ Inside the Gentran Integration Suite interface

In this case, both the GPM application and your Internet connection to Gentran Integration Suite are open. You will need to log into GPM using your Gentran Integration Suite User ID and Password when using this method.

◆ Outside of Gentran Integration Suite

In this case, called *working offline in the GPM*, you do not log in to Gentran Integration Suite, and the GPM cannot interact with Gentran Integration Suite. There is no log in screen when you are working offline.

The ability to work in the GPM without starting Gentran Integration Suite offers you the convenience of creating and modifying business process models without having to open an Internet 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 Gentran Integration Suite later, after you log in.

Because the GPM and Gentran Integration Suite can interact (such as when you update the service stencils in the GPM), working in the GPM from outside Gentran Integration Suite involves the following restrictions:

- ◆ You cannot refresh (update from Gentran Integration Suite) the services listed in the GPM stencils
- ◆ You cannot check business process models into or out of Gentran Integration Suite

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

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

For instructions to start the GPM, see the appropriate procedure:

- ◆ Starting the GPM Inside Gentran Integration Suite (must use this option the first time you start the GPM)
- ◆ Starting the GPM Outside of Gentran Integration Suite

Starting the GPM Inside Gentran Integration Suite

You must use this method the first time you start the GPM. For information, see *Starting the GPM* on page 9.

Note: Initial startup may require several minutes, depending on the speed of your Internet connection.

To start the GPM from inside the Gentran Integration Suite interface:

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 **Business Process** menu, select **Manager**, and in the Graphical Modeling section, next to Run Graphical Process Modeler, click **Go!**
2. The **Log In** dialog box displays. Type your Gentran Integration Suite **User ID** and **Password**, click **OK**.
3. If the **Locale Settings** dialog box displays, select your locale. Options are:
 - ◆ English – United States
 - ◆ Japanese – Japan

By default, this option displays each time you start the GPM. For instructions to disable the display after your initial startup, see *Setting Up Your GPM* on page 14.
4. Click **Continue** to start the GPM.

You can now create and modify business process models. If this is the first time you have started the GPM, you should set your preferences. See *Setting Up Your GPM* on page 14.

Because you are logged in to Gentran Integration Suite, you can check business process models in and out.

Starting the GPM Outside of Gentran Integration Suite

Certain restrictions apply when using the GPM offline. For information, see *Starting the GPM* on page 9.

To start the GPM offline:

1. From the Windows **Start** menu, select **Programs > Java Web Start > Java Web Start**.
2. From the **View** menu, select **Downloaded Applications** to view installed applications (or installed instances of the GPM).
3. Select the GPM application (**Modeler**) and click **Start**.
4. In the **Locale Settings** dialog box, select your locale. Options are:
 - ◆ English – United States
 - ◆ Japanese – Japan

The Locale Settings dialog box displays each time you start the GPM. For instructions to disable the dialog box display after initial startup, see *Setting Up Your GPM* on page 14.

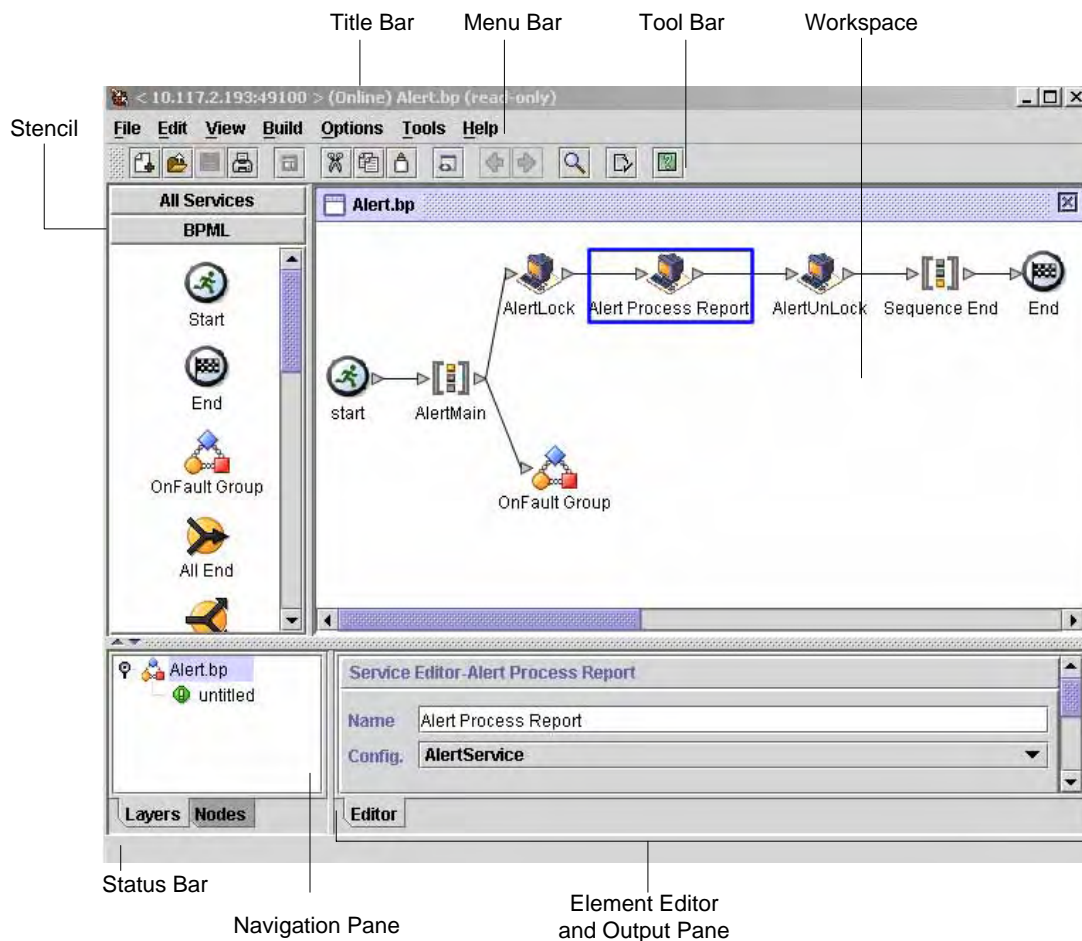
5. Click **Continue** to start the GPM.

You can now create and modify business process models. If you have not already done so, you should set your preferences. See *Setting Up Your GPM* on page 14.

The GPM Interface

The GPM is designed to simplify your tasks in creating and modifying business process models through drag-and-drop technology and tools for navigation and configuration.

The following figure shows the GPM interface and its components. A business process model document is open (select **File > New** to activate the workspace). To create business process models, you 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 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 <i>GPM Stencils</i> on page 17.


Component	Description
Title Bar	<p>Displays:</p> <ul style="list-style-type: none"> ◆ IP address and port of your associated installation of Gentran Integration Suite ◆ 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	<p>Enables you to select options related to creating, modifying, and checking in and out your business process models.</p> <ul style="list-style-type: none"> ◆ 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 <i>Customizing the GPM Interface Display</i> on page 14.
Tool Bar	<p>Displays buttons that provide quick access to commonly used commands. Inactive buttons become active when you select a service icon in the workspace.</p>
Workspace	<p>Area in the GPM interface to which you can drag and drop icons to create a business process model. Within the workspace, you 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.</p> <p>To view BPML source code, from the View menu, select Source.</p>
Status Bar	<p>Displays a description of a menu option, toolbar button, or service icon (in a stencil), when you point to it.</p>
Navigation Pane	<p>Displays a tree diagram of the business process model, depicting any subflows (called <i>layers</i> in this pane) and the steps contained within each subflow (these are the <i>nodes</i>). 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.</p> <p>The Navigation pane is especially helpful when you are working with complex processes that contain many subflows.</p> <p>For more information, see <i>Navigating Layers and Nodes in the GPM Interface</i> on page 12.</p>
Element Editor and Output Pane	<p>Displays either element editors for a selected component of the business process model, or the output for system messages.</p> <ul style="list-style-type: none"> ◆ 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 <i>Element Editors in the GPM</i> on page 16. ◆ The Output tab displays error, validation, and system messages. This pane opens automatically when you validate a model or view source code.

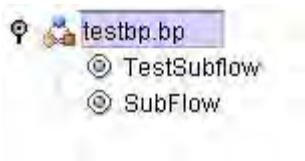
Navigating Layers and Nodes in the GPM Interface

Working with graphical business process models often requires you to navigate sometimes complex or extensive arrangements of process components. For your convenience, the 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 models, 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.

Using the 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**.

Setting Up Your GPM

You can choose from a variety of settings in the 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.

Note: If multiple users log in to your computer using the same user ID and password, and use the GPM, they share the GPM application and therefore any preference settings. In this case, each user can re-set his or her preferences whenever he or she uses the GPM.

To set your preferences:

1. Select **Options > Preferences**.
2. On the **General** tab, indicate whether the GPM should automatically validate 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. Select the **Source Manager** tab. This enables you to opt to use the Expert display mode for checking business process models into Gentran Integration Suite when you use the GPM Source Manager. Expert Mode displays one dialog box containing all of the parameters related to checking in a business process model to Gentran Integration Suite. 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. Select **Use Expert Mode** or leave the selection blank.
4. Select the **File Location** tab. If you like, specify a default directory to which the GPM will save all business process documents (.bp files) on your client computer.
5. Select the **Locale** tab and select a default locale (either English/United States or Japanese/Japan) for your installation. If you do not specify a default locale, the Locale Settings dialog box displays each time you start the GPM.
6. Select the **Service Editor** tab and indicate whether you want to be able to override parameters for service configurations as they are currently saved in Gentran Integration Suite. When you do not select this option, some predefined service configuration parameters are not editable in the GPM.
7. Click **OK**.

The GPM also enables you to customize the display to facilitate your work habits. For information, see *Customizing the GPM Interface Display* on page 14.

Customizing the GPM Interface Display

The View menu Enables you to customize the GPM display. In the View menu, you can click certain options you want to display or hide. When these options have a check mark next to them, they display. 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 *GPM Stencils* on page 17.
- ◆ 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.

Element Editors in the GPM

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 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 Gentran Integration Suite. However, some BPML activities and most services require you to perform additional configuration in the 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	Enables you to indicate the message and name of the receiving participant or activity for the business process or subflow.
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, Gentran Integration Suite generates a report that describes the error.
Service Editor	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: <ul style="list-style-type: none">◆ 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.

GPM Stencils

Stencils are palettes that you can display in the GPM and from which you select icons representing activities to include in your business process models. See *The GPM Interface* on page 11 for an illustration of the stencils pane.

Each stencil contains labeled icons for a specific category of installed services or 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**.

Choosing the Stencils You Need

Stencil names describe the category or sub-category of services and adapters for the icons they contain, with the exception of the 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 choose a stencil to open, look for the category of service and any sub-category that might apply.

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. Therefore, to choose the ebXML stencil, from the **View** menu, select **Stencil > Internet B2B > ebXML**.

You can also display all services (but not BPML activities) in one single stencil, by selecting **View > Stencil > All Services**.

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 Gentran Integration Suite.

For more information, see:

- ◆ *GPM Stencil Descriptions* on page 18

Adding New Services and Service Configurations to the GPM Stencils

Periodically, you may install additional services and adapters to your Gentran Integration Suite application or update service configurations created in the Gentran Integration Suite interface. In order to update the GPM to include them, you must *refresh* the GPM. Select **View > Refresh Services** any time you need to update the GPM stencils to display the most current services and adapters installed with Gentran Integration Suite. You must be working with the GPM online (Gentran Integration Suite must be running) to use this command.

GPM Stencil Descriptions

The following table describes the 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 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: <ul style="list-style-type: none"> ◆ PeopleSoft CRM[®] (Vantive) adapter ◆ SAP[®] R/3[®] adapter
Applications / Sterling Commerce	Adapters installed to connect to external, Sterling Commerce applications, such as: <ul style="list-style-type: none"> ◆ Connect:Direct[®] Requester adapter and related services ◆ Connect:Enterprise[®] UNIX Server adapter and related services ◆ Gentran:Server[®] Windows adapter ◆ Sterling Information Broker
B2B Protocols / FTP Client	Services that complete B2B communication using File Transfer Protocol, such as: <ul style="list-style-type: none"> ◆ FTP Client Password service ◆ FTP Client Server service
B2B Protocols / HTTP Client	Services that complete B2B communication using Hypertext Transfer Protocol, such as: <ul style="list-style-type: none"> ◆ 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: <ul style="list-style-type: none"> ◆ SFTP Client PUT service ◆ SFTP Client GET service
BPML / BPML	Commonly used BPML activities and instructions, such as: <ul style="list-style-type: none"> ◆ Start ◆ End ◆ Assign ◆ Join

Category / Stencil Name	Contains Icons for:
Communications / Communications	<p>Services and adapters that enable Gentran Integration Suite to send and receive messages using the standard Internet communications protocols, such as.</p> <ul style="list-style-type: none"> ◆ B2B HTTP Client adapter and related services ◆ FTP Client adapter and related services ◆ HTTP Client adapter and related services ◆ MIME service
Custom / Custom	<p>Custom-created services, after your software developer has developed, installed, and configured them.</p>
EDI / ACH	<p>Services related to EDI transaction processing requirements using Automated Clearing House standards, such as:</p> <ul style="list-style-type: none"> ◆ ACH Enveloping service ◆ ACH Develope service
EDI / CII	<p>Services related to EDI transaction processing requirements using Japanese Center for Informatization of Industry standards, such as:</p> <ul style="list-style-type: none"> ◆ CII Develope service ◆ Envelope service
EDI / EDIFACT	<p>Services related to EDI transaction processing requirements using EDIFACT standards, such as:</p> <ul style="list-style-type: none"> ◆ EDI, UNB, UNH, Develope and Envelope services ◆ Generate and Reconcile Control services
EDI / TRADACOMS	<p>Services related to EDI transaction processing requirements using TRADACOMS standards, such as:</p> <ul style="list-style-type: none"> ◆ EDI Envelope service ◆ Generic Envelope service
EDI / X12	<p>Services related to EDI transaction processing requirements using Accredited Standards Committee X12 standards, such as:</p> <ul style="list-style-type: none"> ◆ 997 Generator and Reconcile services ◆ EDI, GS, ISA, ST Develope and Envelope services ◆ TA1 Generator and Reconcile services
Internet B2B / E5	<p>Services that implement business-to-business data exchange using the E5 (clients and servers) format, such as:</p> <ul style="list-style-type: none"> ◆ E5 Client Configuration service ◆ E5 Obtain service
Internet B2B / ebXML	<p>Services that implement business-to-business data exchange using the ebXML format, such as:</p> <ul style="list-style-type: none"> ◆ ebXML Digital Signature service ◆ ebXML Profile service

Category / Stencil Name	Contains Icons for:
Internet B2B / EDIINT	<p>Services that implement business-to-business data exchange using the EDIINT protocol, such as:</p> <ul style="list-style-type: none"> ◆ EDIINT Acknowledge Check service ◆ EDIINT Message service ◆ EDIINT Pipeline service
Internet B2B / Mailbox	<p>Services that implement business-to-business data exchange using mailbox format, such as:</p> <ul style="list-style-type: none"> ◆ Mailbox Evaluation Routing Rule service ◆ Mailbox Extract Begin service
Internet B2B / Rosettanet	<p>Services that implement business-to-business data exchange using RosettaNet™ RNIF standards, such as:</p> <ul style="list-style-type: none"> ◆ RNIF 20 MessageBuilder service ◆ RN Profile service ◆ RosettaNet Sender service
Internet B2B / SOAP	<p>Services that implement business-to-business data exchange using Simple Object Access Protocol, such as:</p> <ul style="list-style-type: none"> ◆ SOAP Inbound service ◆ SOAP Outbound service
Internet B2B / Transora	<p>Services that implement business-to-business data exchange using Transora™ exchange methods, such as:</p> <ul style="list-style-type: none"> ◆ TDC Document XPath Replace service ◆ Transora HTTP AS2 DocHandler service ◆ Transora HTTP AS2 MDNHandler service
Internet B2B / UCCnet	<p>Services that implement business-to-business data exchange using UCCnet™ exchange methods, such as:</p> <ul style="list-style-type: none"> ◆ B2B Request Response service ◆ B2B Send service
Internet B2B / UCCnet22	<p>Services that implement business-to-business data exchange using UCCnet™ exchange methods for UCCnet version 2.2, such as:</p> <ul style="list-style-type: none"> ◆ UCCNet 2.2 Configuration service ◆ UCCNet 2.2 DocHandler service ◆ UCCNet 2.2 Query Deenvveloper service
Messaging / Instant Messaging	<p>Services that enable Gentran Integration Suite to send and receive instant messages, such as:</p> <ul style="list-style-type: none"> ◆ IM Send Message service ◆ IM Receive Message service

Category / Stencil Name	Contains Icons for:
Messaging / Queuing	<p>Adapters that enable Gentran Integration Suite to send messages to and from remote messaging queues, such as:</p> <ul style="list-style-type: none"> ◆ 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	<p>Services that enable you to script a complete MQ session using a business process, such as:</p> <ul style="list-style-type: none"> ◆ WebSphere MQ Suite Open Session service ◆ WebSphere MQ Suite Get Message service ◆ WebSphere MQ Suite Commit service
Process Controls / Process Controls	<p>Services that:</p> <ul style="list-style-type: none"> ◆ Enable custom control at an intricate level (for example, at each step) when running business processes ◆ Can improve business process performance <p>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.</p> <p>Examples of Process Control services are:</p> <ul style="list-style-type: none"> ◆ Cache Refresh service ◆ Execution Control service ◆ Wait services
Retiring / Retiring	<p>Services and adapters that will soon no longer be supported in Gentran Integration Suite.</p> <p>In order to improve performance, enhance features, or ensure compatibility with recent product releases, Sterling Commerce periodically retires services and adapters and makes other services and adapters available to fill the need.</p> <p>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.</p> <p>Services and adapters listed in the Retiring stencil are supported for the current release of Gentran Integration Suite. However, to ensure that you employ the most current capability, avoid using them.</p>

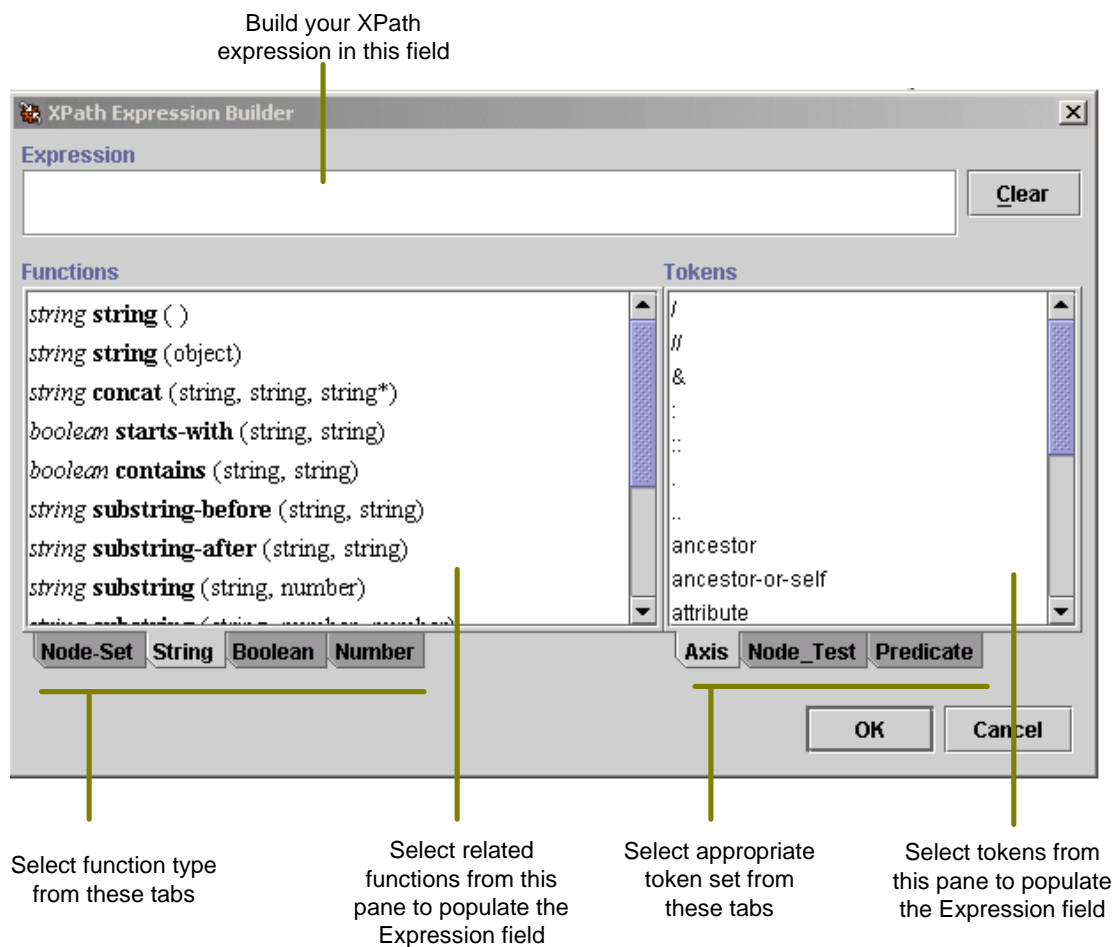
Category / Stencil Name	Contains Icons for:
Sync Mode	<p>Services that can run in Sync mode. Sync mode holds a single processing thread until it has completed its work. Services that are not included are those in the following categories:</p> <ul style="list-style-type: none"> ◆ Performs Waiting or Waiting on IO ◆ Split ◆ Join ◆ Invoke sync ◆ Produce/Consume ◆ All Notify Complete services
System / System	<p>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 Gentran Integration Suite, such as:</p> <ul style="list-style-type: none"> ◆ Command Line adapter ◆ File System adapter ◆ Java™ Database Connectivity (JDBC™) adapter ◆ Lightweight Java Database Connectivity (JDBC) adapter
Translation / Translation	<p>Services that translate or transform data using maps created with the Gentran Integration Suite Map Editor, such as:</p> <ul style="list-style-type: none"> ◆ Translation service ◆ Typing service ◆ XML Encoder service ◆ XSLT service
Transport / Transport	<p>Adapters that offer additional options that enable Gentran Integration Suite to communicate with local or remote servers and exchange data, such as:</p> <ul style="list-style-type: none"> ◆ Lightweight Directory Access Protocol (LDAP) adapter ◆ Remote Method Invocation (RMI) adapter ◆ Simple Network Management Protocol (SNMP) Trap adapter
Web Extensions / Web Extensions	<p>Services that support Web services technologies. Web services directly invoke application function calls over the Internet.</p> <p>Examples of Web Extensions services are:</p> <ul style="list-style-type: none"> ◆ Human Interaction Document Loader service ◆ Human Interaction Event and Query services ◆ Human Interaction XForms service

GPM 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 *Gentran Integration Suite and BPML*.

The XPath Expression Builder makes creating XPath expressions to use in your business process models more convenient. Clickable function and token menus enable you to select the functions and tokens to build an expression.

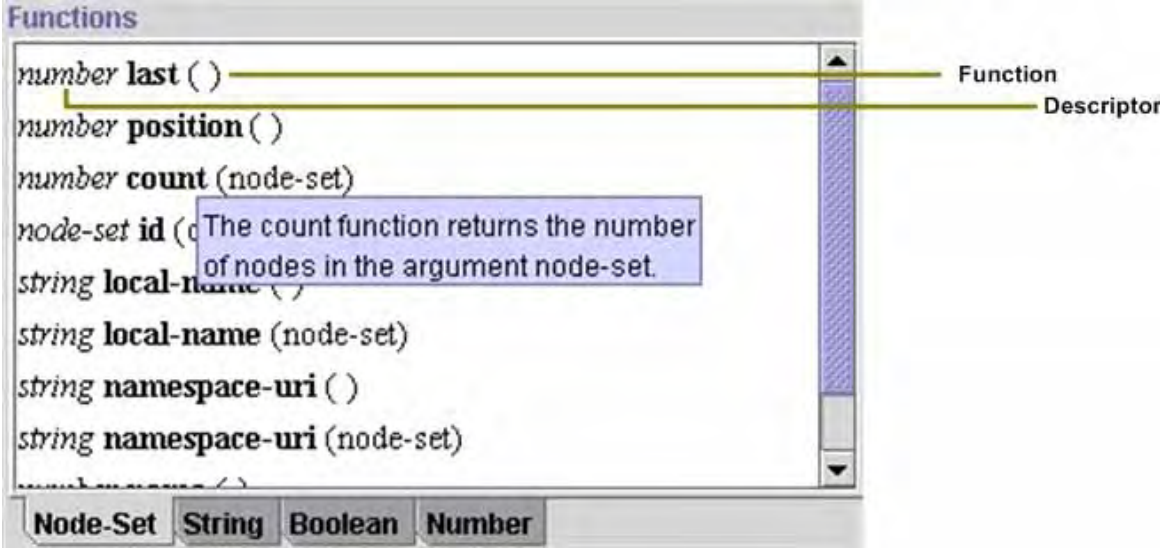
The following figure shows the XPath Expression Builder.



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, visit www.w3c.org and peruse the XPath Tutorial.

Note: Remember that you cannot use functions and tokens in Gentran Integration Suite that are not supported in the XPath Expression Builder, with the following exceptions:

- ◆ DocToDOM
- ◆ DOMToDoc

For information about these exceptions, see *BPML and Gentran Integration Suite*.

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: <ul style="list-style-type: none"> ◆ 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: <ul style="list-style-type: none"> ◆ 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

Function type	Description
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: <ul style="list-style-type: none"> ◆ 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:

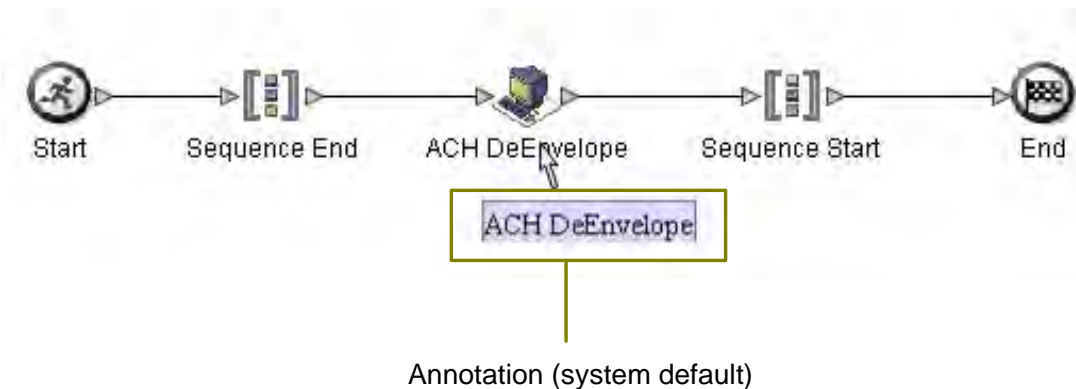
Token Set	Use to:
Axis	Define the direction of your search by using keywords, including: <ul style="list-style-type: none"> ◆ Attributes ◆ Child elements (default) ◆ Descendants of the child elements ◆ Parent elements ◆ Ancestor elements
Node Test	Indicate the name of the node for which to search. Note: 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.

GPM 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 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 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.

Uninstalling the GPM

If you have more than one copy of the 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 Web Start Manager. For instructions, see *Removing One or More Copies of the GPM* on page 27.

However, if you want to remove the GPM entirely from your client computer, you must:

- ◆ Remove any installed copies through the Web Start Manager.
- ◆ Uninstall the Java 2 Runtime Environment.
- ◆ Uninstall Java Web Start.
- ◆ Delete the default directory where the GPM saves .bp files when you save your business process models.

For instructions, see *Uninstalling the GPM and Related Files from Your Client Computer* on page 27.

Removing One or More Copies of the GPM

This procedure is completed in the Java Web Start Manager interface, which was installed when you downloaded Java Web Start. Complete this procedure as many times as needed to remove one copy of the GPM at a time.

To remove a copy of the GPM:

1. On the computer where the GPM is installed, from the Windows **Start** menu, select **Programs > Java Web Start > Java Web Start**.
2. From the **View** menu, select **Downloaded Applications** to view the GPM application (or installed copies of the GPM).
3. Select the GPM (or the copy of the GPM) that you want to remove from the application window.
4. From the **Application** menu, select **Remove Application**.

Uninstalling the GPM and Related Files from Your Client Computer

To uninstall the GPM:

1. On the computer where the GPM is installed, from the Windows **Start** menu, select **Settings > Control Panel**.
2. Double-click **Add/Remove Programs**.
3. In the **Add/Remove Programs Properties** dialog box, select **Java 2 Runtime Environment Standard Edition v1.3.1_xx** and click **Change/Remove**.

Caution: If you use other applications that depend on Java Web Start or the Java 2 Runtime Environment, uninstalling Java will disable the related applications.

4. Follow the remaining instructions to complete the Java 2 Runtime Environment uninstall process. Refer to Microsoft Windows documentation if you require complete instructions.

5. Return to the **Add/Remove Programs Properties** dialog box, select **Java Web Start**, click **Change/Remove**, and repeat step 4.
6. Navigate to the default directory where the GPM stores files related to the business process models you save when you work in the GPM, and delete the folders. The path to the directory is:
C:\Documents and Settings*username*\pmodeler\IP\port

Caution: This step deletes business process models that you saved through the GPM to the default storage directory. If you have any business process models that you have saved in the GPM but not checked in to Gentran Integration Suite, and that you do not want to delete, you should back up the contents of this directory before you delete it. If you instructed the GPM to save business process models to a different directory than *pmodeler*, you can ignore this caution. Furthermore, any business process models that you have checked in to Gentran Integration Suite remain saved in Gentran Integration Suite and are therefore still available to use and modify, regardless of whether you delete them in this step.

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