StreamServe Persuasion SP5 Design Center

User Guide

Rev B

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Concepts and glossary

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Concepts

In this section

Message

A Message is a tree structure of tagged fields and blocks. The Message is used internally by the StreamServer when transforming input documents into output documents.

The Message is independent of the input and output format. This means the StreamServer can receive input in any format, transform the input into a Message, and then transform the Message into any output format.

Design Center Projects

A Design Center Project constitutes the configuration used by a StreamServer application to collect, transform, and deliver data. In Design Center, you create and configure the Project. Then you export the Project, and deploy it to the appropriate StreamServer application.

A StreamServe Project contains the following main components:

- Platform (see *Platforms* on page 13)

- Message configuration (see *Message configurations* on page 13)
- Runtime configuration (see *Runtime configurations* on page 15)
- Resource set (see *Resource sets* on page 18)

Platforms

The Platform represents the StreamServer application to which the Project is deployed, and contains the environment settings for that StreamServer application. This includes available connectors, queues, and paths used to find local resources.

The Platform is divided into one generic layer (settings that apply to all physical environments) and one physical layer per target environment (development, test, etc.). See *Platform layers* on page 19 for more information about layers.

Message configurations

A Message configuration defines:

- How to identify documents in the input job.
- Which parts of an input document to extract.
- How to create a Message.
- How to use the Message to create the output documents.

The part of the Message configuration that extracts the input documents and creates the Message is called Event, and the part that creates output documents is called Process.

A Project normally contains several Message configurations, where each Message configuration corresponds to a specific document type. For example, one Message configuration for invoices, another for orders, etc.

References

- *Message* on page 12
- *Events* on page 13
- *Processes* on page 14

Events

An Event defines how to identify documents in the input job, which parts of an input document to extract, and how to create the Message.

Trigger patterns

An Event is triggered by patterns in the input data. When a matching pattern is found, the Event starts to extract data from the input and creates the Message.

Message definition

The instructions on how to create the Message, i.e. a tree structure of named fields and blocks, are defined in the Event. When the data is extracted from the input, the Event uses these instructions to map non-recurring input data to fields at root level, and recurring data to fields in blocks.

Different input formats

There are different types of Events adapted to different types of input:

• Page based

• Field based

• Record based

• XML based

• Preformatted (e.g. PDF)

Event tools

You use different types of Event tools to configure Events.

Event tool	Input format
PageIN	Page based.
StreamIN	Field and record based.
XMLIN	XML structured.
PreformatIN	Preformatted (e.g. PDF).
MessageIN	XML structured.

Processes

A Process defines which fields and blocks in the Message to use, and how to organize the fields and blocks in the output documents.

Different output formats

There are different types of Processes adapted to different types of output:

• Page based

• Record based

• XML based

Page layout and text formatting

Processes for page based output also defines the page layout (position of text, graphics, etc.) and text formatting (font, font size, hyper links, etc.).

Process tools

You use different types of Process tools to configure Processes.

Process tool	Output format
PageOUT	Page based.
StoryTeller	Page based
StreamOUT	Record based.
XMLOUT	XML based.
MailOUT	Text or HTML based. Used for sending emails. Files can be attached.
MessageOUT	XML based.
RedirectOUT	Same as the input format.
SMSOUT	Text based. Used for sending SMS messages.

Runtime configurations

A Project can contain several Runtime configurations, for example one Runtime configuration per document type (Message configuration). The Runtime configurations in a Project connects Message configurations to the Platform, i.e. they specify the document types to be handled by the StreamServer application.

The Runtime configuration view

Each Runtime configuration is represented by a Runtime configuration view in Design Center. This view includes all connectors created in the Platform, and all Message configurations added to the Runtime configuration.

Collection of input jobs

For each Message configuration, you must specify from where to collect the input job. You do this in the Runtime configuration view by connecting the input connector that retrieves the input job, to the Event that extracts documents from the input job.

Delivery of output documents

For each Process in a Message configuration, you must specify where to deliver the output. You do this in the Runtime configuration view by connecting the Processes to the appropriate output connectors.

Runtime jobs and Post-processors

See *Runtime jobs* on page 16 and *Post-processors* on page 16.

Runtime jobs

A Runtime job is a grouping of one or several Message configurations in a Runtime configuration.

Job scope

A Runtime job starts when the first of its documents is found in the input job, i.e. when the first Event in the Runtime job is triggered.

A Runtime job ends when the last of its documents retrieved from the input job has been processed and delivered from the Processes.

Document definitions

For each Runtime job and output connector, you can define Documents. A Document includes output from Processes in the same Runtime job. See *Output mode Document* on page 21 for more information.

Connector settings

The Runtime job enables you to configure connector settings that apply to all included Processes:

- Job Begin settings – applied before the Runtime job starts.
- Job End settings – applied after the Runtime job ends.
- Document Begin settings – applied before each Document.
- Document End settings – applied after each Document.

Sorting

The Runtime job enables you to sort the documents extracted from the input job before the output jobs are created. For example, when using output mode Document, you may have to sort the input documents before the output documents are created. See *Sorting documents* on page 165 for more information about different types of sorting.

Post-processors

A StreamServer can store page formatted documents in a Post-processor repository. These documents can later be retrieved and processed by any StreamServer with access to the repository. To retrieve documents from a Post-processor repository, you must add a Post-processor to the Runtime configuration.

Process links

A Post-processor always includes a default Process Link, which is used as the connection point to the output connector. To enable Process specific or Page specific output connector settings, you must add a new Process Link to the Post-processor job. This Process Link must be linked to the Process that stored the corresponding document in the Post-processor repository.

Input connectors

Input connectors are the channels through which input jobs are received. You create the input connectors in the Platform, and in the Runtime configuration you specify to which Events to deliver the input jobs.

Connector type

There are different types of input connectors. Which type to select depends on how the input jobs are retrieved from the source application. For example, if the source application stores output files in a directory, you can use a Directory input connector to retrieve the files from the same directory.

Queue

You can connect input queues to the input connectors. The input queue stores input jobs before they are processed by the StreamServer.

Output connectors

Output connectors are the channels through which output jobs are delivered. You create the output connectors in the Platform, and in the Runtime configuration you specify from which Processes to collect the output.

Connector type

There are different types of output connectors. Which type to select depends on how the output jobs are delivered to the target application. For example, if the target application is a printer, you can use a Spool output connector to deliver the output to the printer.

Driver

If the output connector delivers page formatted output to the target application, you must add the appropriate device driver to the output connector. For example, if the target applications a PCL printer, you must add the appropriate PCL device driver to the output connector.

Queue

You can connect output queues to the output connectors. The output queue stores the output jobs before they are delivered to the target application.

Output mode

You must specify the appropriate output mode for each output connector. See *Output modes* on page 20 for more information about output mode.

Runtime configuration connector settings

The connector type and device driver settings you configure in the Platform are the default settings that will be applied in all Runtime configurations in the Project. In each runtime configuration, you can override the default settings.

In the Runtime configurations, you can also configure connector settings that will be applied before or after the Runtime job, and before or after each Document in the Runtime job. For example sheet layouts, OMR codes, and enveloping.

Input queues

An input queue stores input jobs before they are processed by the StreamServer. It queues input jobs if more jobs are sent to the StreamServer than it can process. In case of an unexpected StreamServer shutdown, the queue also provides robustness since it enables the StreamServer to reprocess the input jobs when it is restarted.

Several StreamServer applications can share the same input queue. This provides possibilities for scaling over multiple StreamServer applications.

Output queues

An output queue stores the output jobs before they are delivered to the target applications (printers, faxes, etc.). It queues output jobs if the StreamServer creates more output jobs than it can deliver. In case of an unexpected StreamServer shutdown, it also provides robustness since it enables the StreamServer to reprocess the output jobs when it is restarted.

Several StreamServer applications can share the same output queue. This provides possibilities for scaling over multiple StreamServer applications.

Resources

All external files that you refer to when you configure a Project must be available to the Project as resources. A resource in this context is a file with an embedded source file. For example, to be able to use the image file `logo.gif` in a Project, this file must be embedded in a resource. Resources are stored on disk, for example in the local Project directory, or in a directory shared by several Projects.

Resource examples

- **Overlays** – layouts to include in page formatted output.
- **Images** – images to include in page formatted output.
- **Filter chains** – a collection of filters that can be used by a connector.

Resource sets

Resources (overlays, images, filter chains, etc.) must be available to the Project components (Platforms, Message configurations, and Runtime configurations) via resource sets. A resource set is a set of links to physical resource files stored on disk.

For example, if you want to add the overlay resource `ovlHeader.lxf` to a PageOUT Process, a link to this resource must be included in a resource set connected to the PageOUT Process (i.e. to the Message configuration that includes this Process). The PageOUT Process will then use this link to access the actual resource.

The default resource set

When you create a Project, a default resource set is automatically added to the Project. This resource set is automatically connected to all Project components you create from within the Project. This means all resources added to the default resource set are available to all Project components. If you want to use other resource sets, you must manually connect them to the Project components.

Platform layers

The Platform is separated into one generic layer and one physical layer per target environment. For example, you may have the following target environments:

- Development
- Test
- QA
- Production

In this case the Platform must have four physical layers – one for the Development environment, one for the Test environment, etc.

Runtime configuration layers

A Runtime configuration is based on the Platform, and inherits the generic and physical layers from the Platform. For example, if the Platform is separated into a Development, Test, QA, and Production layer, the Runtime configuration will also be separated into the same layers.

Generic layer settings

The generic layer includes settings that must be the same in all target environments. These settings must be tested in all development and test environments before the production layer is deployed. For example, you cannot develop and test output using a PDF driver, and then use an AFP driver in the production environment. In this case you must use an AFP reader in the environments that have no access to the actual printer.

Physical layer settings

The physical layers include environment specific settings. For example, the paths for input and output jobs will probably not be the same in the development and production environment.

The same Design Center Project in all target environments

The separation of the Platform into layers enables you to use the same Design Center Project in all target environments. When you export the Project, all physical layers are included in the same export file. When you deploy the Project to a StreamServer application, you specify which physical layer to deploy and run.

Reuse of Platform settings

The generic Platform layer contains settings that apply to all target environments. This means you only have to configure these settings once, no matter how many physical layers you must create. When you create a new physical layer, you create a copy of an existing physical layer. Then you only have to edit the environment specific settings in the new physical layer.

Output modes

The output mode specifies how to group documents before they are delivered via the output connector to the target application. There are three different output modes:

- **Process** – See *Output mode Process* on page 20.
- **Document** – See *Output mode Document* on page 21.
- **Job** – See *Output mode Job* on page 22.

Which output mode to use depends on the type of output and target application. The default output mode Process can be used in different types of scenarios. In other scenarios you may have to use output mode Document or Job.

Output mode Process

In output mode Process, the output connector delivers the output as it arrives from a Process. This means each output document is delivered separately.

Process mode scenario

In this scenario, you have a Runtime job that contains one Process that delivers invoices to a printer via a Spool output connector. If you select output mode Process, the output connector delivers each invoice separately.

Figure 1   Output mode Process.

Output mode Document

What is a Document?

A Document is an output job sent via an output connector to the target application. It includes output from Processes in the same Runtime job, and the scope of the Document is specified using a *Document trigger*. The Document enables you to group documents per customer number, delivery address, etc. before delivering the output to the target application.

What is output mode Document?

In output mode Document, the output is delivered as Documents. This means the output connector waits until the Document is complete before it delivers the output. Use this mode if you want to group documents per customer number, delivery address, etc.

Document mode scenario

In this scenario, you have a Runtime job with two Processes that create hardware invoices and software invoices:

* `procHardware`

* `procSoftware`

Both Processes deliver output via the same fax output connector. If you select output mode Document, the hardware and software invoice are grouped per customer before they are faxed. This means each customer will receive one fax.
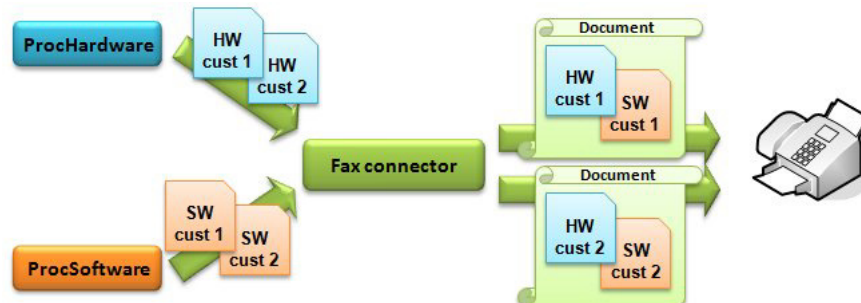
Figure 2   Output mode Document – one fax per customer.

Same scenario using output mode Process

If you select output mode Process instead of Document, each invoice is faxed separately. This means each customer will receive two faxes.
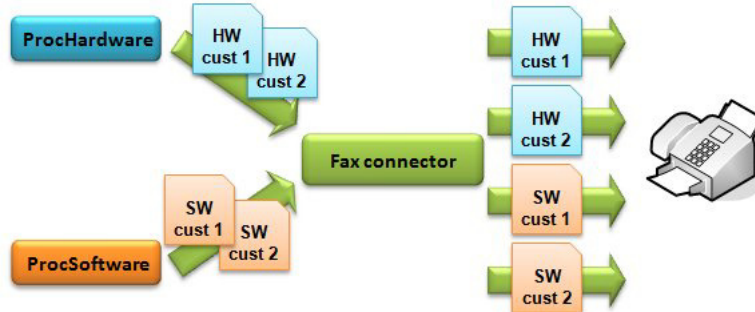
Figure 3   Output mode Process – two faxes per customer.

Document trigger

A Document trigger is a variable that determines the scope of the Document. For example, if you assign the variable $customerNumber to the Event field customerNumber, you can use $customerNumber as Document trigger. In this case, all documents with the same customer number in the input job are included in the same Document.

Beginning and end of a Document

The Document trigger determines the beginning and end of a Document. The current Document ends, and a new Document begins, when the Document trigger variable changes.

Sorting the input

Since a Document ends when the Document trigger changes, the input must come in the right sequence. For example, if customer number is used as Document trigger, all documents with the same customer number must be handled in sequence. This means you may have to sort the input before the Documents are created. See *Sorting documents* on page 165.

Output from several Runtime jobs

If the output connector handles output from several Runtime jobs, you must specify a Document trigger for each Runtime job. This means a connector can have several Document triggers – one trigger per Runtime job. Note though that you can use the same trigger variable (customer number, customer name, etc.) for all Runtime jobs.

Output mode Job

In output mode Job, the output connector waits until the whole Runtime job is finished before it delivers the output. Use this mode if you want to create one group for the output from all Processes in a Runtime job.

Job scenario

In this scenario, you have a Runtime job that contains one Process that prints invoices to an AFP file via a File output connector. The AFP file is used for production printing, and all invoices in the Runtime job should be printed to the same AFP file. To achieve this, you must select output mode Job.
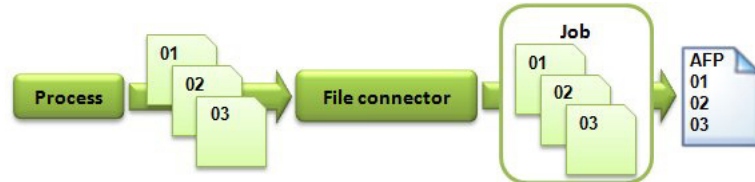
Figure 4   Output mode Job.

Input Analyzer

An input connector can be used for different input types, and deliver data to several Events. For example, the same input connector can receive XML structured, page formatted, and record based input, and deliver data to an XMLIN Event, a PageIN Event, and a StreamIN Event.

The Input Analyzer is the component responsible for delivering data to the appropriate Event type. For example, if an input connector is connected to an XMLIN Event and a PageIN Event, the Input Analyzer ensures that XML structured input is delivered to the XMLIN Event, and that page formatted input is delivered to the PageIN Event.
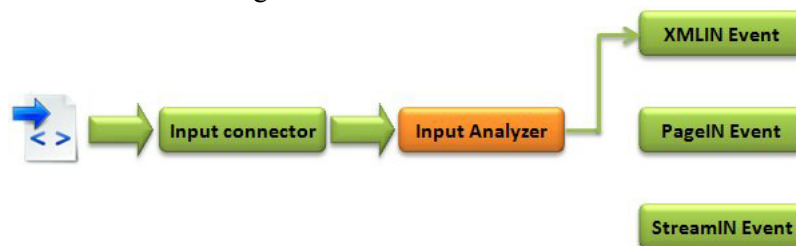
Figure 5   The Input Analyzer directs XML structured input to an XMLIN Event.

How the Input Analyzer works

Each input connector is associated with a list of input types. This list includes all input types handled by the input connector, and is used by the Input Analyzer to find a matching Event for the input data. The following steps describe how the Input Analyzer finds a matching Event:

1   An input job is received by an input connector.

2   The Input Analyzer checks the input type list associated with the input connector.

3   The Input Analyzer starts with the first input type in the list, and sends the data to the corresponding Event.

4   The Event tries to identify the input data to see if it is the right input type.

– If it is the right input type, the Input Analyzer is notified, and the Event starts processing the data.

– If it is not the right input type, the Input Analyzer is notified and continues with the next input type in the list.

5 The Input Analyzer continues through the input type list until it finds a matching Event.

How the input type list is defined

You define the input type list when you link the input connector to Events in the Runtime configuration. Each time you link the connector to a new Event, the list is updated with the corresponding input type.

For example, if a connector is linked to a StreamIN Event (input type RecordIN) and an XMLIN Event, the input type list includes the input types RecordIN and XMLIN. If you link this connector to a PageIN Event, the input type list is updated with the input type PageIN.

Input types supported by the Input Analyzer

The following input types are supported by the Input Analyzer:

- FieldIN (StreamIN)
- RecordIN (StreamIN)
- MessageIN
- XMLIN
- PageIN

Input types not supported by the Input Analyzer

The following input types are not supported by the Input Analyzer:

- PreformatIN
- Agent (StreamIN)
- Movex (StreamIN)
- StrsXML (StreamIN)
- XML (StreamIN)

This means that if you link an Event using any of these input types, you cannot link any other type of Event to the same input connector.

Project export and deployment

A Project consists of a set of Project files. These files include all the information needed by the StreamServer application to collect, transform, and deliver data. To make this information available to the StreamServer application, you must first export the Project, and then deploy the exported Project to the StreamServer application.

Project export

When you export a Project, you create an export file (`*.export`) that includes all the configuration files needed by the StreamServer application. The export file includes the configuration files for all Platform layers defined in the Project.

Deployment

When you deploy a Project to a StreamServer application, you must specify which Platform layer to deploy. All the configuration files are then extracted from the export file, and stored in the working directory of the StreamServer application. See the *Control Center* documentation for more information on how to deploy Projects.

Glossary

Alias	Method used to configure settings dynamically. There are two types of aliases:
	• Script alias, where you use scripting to determine which alternative to select.
	• Lookup alias, where you use lookup tables to determine which alternative to select.
Document	A Document (capital D) is a grouping of documents per customer number, delivery address, etc.. The scope of the Document is specified using a Document trigger.
Document trigger	A variable that determines the scope of the Document.
Event	An Event defines how to identify documents in the input job, which parts of an input document to extract, and how to create a Message.
Event tool	Each Event type has its own Event tool (PageIN, StreamIN, XMLIN, etc.) where the Event is configured.
Export	When you export a Project, you create an export file (`*.export`) that includes all the configuration files needed by the StreamServer application. The export file includes the configuration files for all Platform layers defined in the Project.
Filter chain	A collection of filters that can be used by a connector.
Generic Platform layer	The generic Platform layer (also referred to as logical layer) includes settings that must be the same in all target environments.
Input Analyzer	Enables input connectors to receive input in different formats, and to deliver the input to the appropriate Event.
Input connector	Input connectors are the channels through which input jobs are received.
Input job	A stream of data, with a distinct beginning and end, received via an input connector, and processed by the StreamServer.
Input queue	An input queue stores input jobs before they are processed by the StreamServer.
MailOUT	Process used to create email output.
Message	A tree structure of tagged fields and blocks used internally by the StreamServer when transforming input documents into output documents.

Message configuration	A Message configuration defines:
	• How to identify documents in the input job.
	• Which parts of an input document to extract.
	• How to create a Message.
	• How to use the Message to create the output documents.
MessageIN	Event for StreamServe XML input data.
MessageOUT	Process for output data sent to a MesageIN Event. The MessageOUT Process makes it possible to extend the processing chain over multiple StreamServers.
Output connector	Output connectors are the channels through which output jobs are delivered.
Output job	An output job is equivalent to a file, created by the StreamServer, and delivered via an output connector to a target application (printer, fax, etc.). The scope of the output job is set by the output mode, and in some scenarios by using script functions (e.g. SetDestPath).
Output mode	The output mode specifies how to group documents before they are delivered via the output connector to the target application.
Output mode Document	In output mode Document, the output is delivered as Documents. This means the output connector waits until the Document is complete before it delivers the output.
Output mode Job	In output mode Job, the output connector waits until the whole Runtime job is finished before it delivers the output.
Output mode Process	In output mode Process, the output connector delivers the output as it arrives from a Process. This means each output document is delivered separately.
Output queue	An output queue stores the output jobs before they are delivered to the target applications (printers, faxes, etc.).
PageIN	Event for page based input data.
PageOUT	Process for page based output data.
Physical Platform layer	A physical Platform layer includes environment specific settings.
Platform	The Platform represents the StreamServer application to which the Project is deployed, and contains the environment settings for that StreamServer application.
Post-processor	Used to retrieve documents from a Post-processor repository.
PreformatIN	Event for preformatted (e.g. PDF) input data.

Process	A Process defines which fields and blocks in a Message to use, and how to organize the fields and blocks in the output documents.
Process tool	Each Process type has its own Process tool (PageOUT, StreamOUT, XMLOUT, etc.) where the Process is configured.
Project	The configuration used by a StreamServer application to collect, transform, and deliver data. In Design Center, you create and configure the Project. Then you export the Project, and deploy it to the appropriate StreamServer application.
RedirectOUT	Process used to redirect input data directly to an output connector, and skip the processing steps in the StreamServer.
Resource	All external files that you refer to when you configure a Project must be available to the Project as resources. A resource in this context is a file with an embedded source file.
Resource set	A resource set is a set of links to physical resource files stored on disk.
Runtime configuration	The Runtime configurations in a Project connects Message configurations to the Platform.
Runtime job	A Runtime job is a grouping of one or several Message configurations in a Runtime configuration.
StoryTeller	Process for page based output data.
StreamIN	Event for record based and field based input data.
StreamOUT	Process for record based output data.
StreamServer	The server that uses the configuration created in Design Center to collect, transform, and deliver data.
StreamServer application	The StreamServer can run several StreamServer applications, where each StreamServer application is dedicated to a specific Design Center Project.
XMLIN	Event for XML based input data.
XMLOUT	Process for XML based output data.

Introducing the Design Center interface

This chapter describes the work environment and the interface elements you will encounter while you are using Design Center. You will find a comprehensive reference of all Design Center menus, menu commands, and dialog boxes in *Menus, menu commands, and dialog boxes in Design Center* on page 185.

In this chapter

- *Windows and views overview* on page 30
- *Platform view* on page 35
- *Message view* on page 36
- *Runtime configuration view* on page 38
- *Resource set view* on page 41

Windows and views overview

The Design Center graphical user interface (GUI) consists of four windows, and one view per Project component (Platform, Message, Runtime configuration, and resource set). The component views are displayed in the main window.
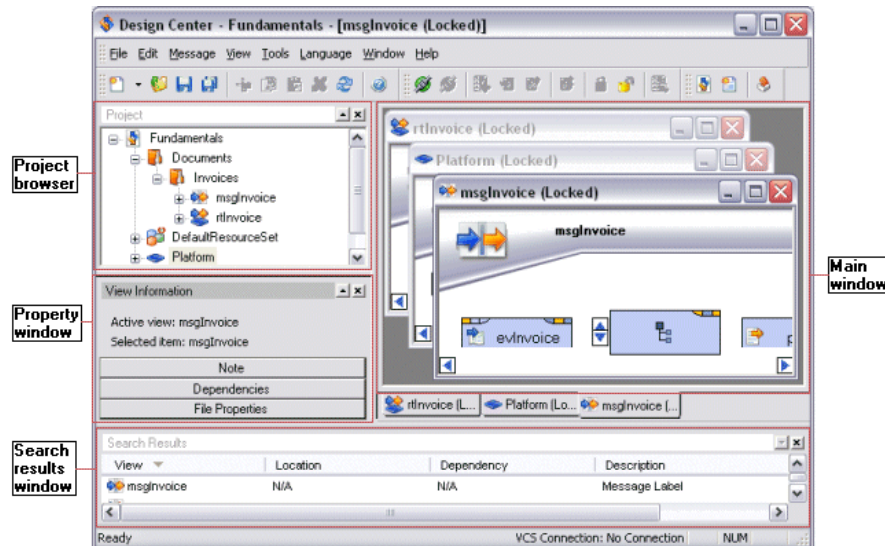
Figure 6   The Design Center GUI

Window	Description
Project browser	The *Project browser* is where you create and structure your Project.
Main	The *Main window* is where you configure the Project components.
Property	The *Property window* displays properties for the active view in the Main window.
Search results	The *Search results window* displays the search results after submitting **Edit** > **Find**.

Showing/hiding windows

You can use the View menu to show/hide windows (you cannot hide the Main window).

Project browser

The Project browser is where you create and structure the Project. The Project is displayed as a tree, and all Project components are added as nodes to the Project tree.
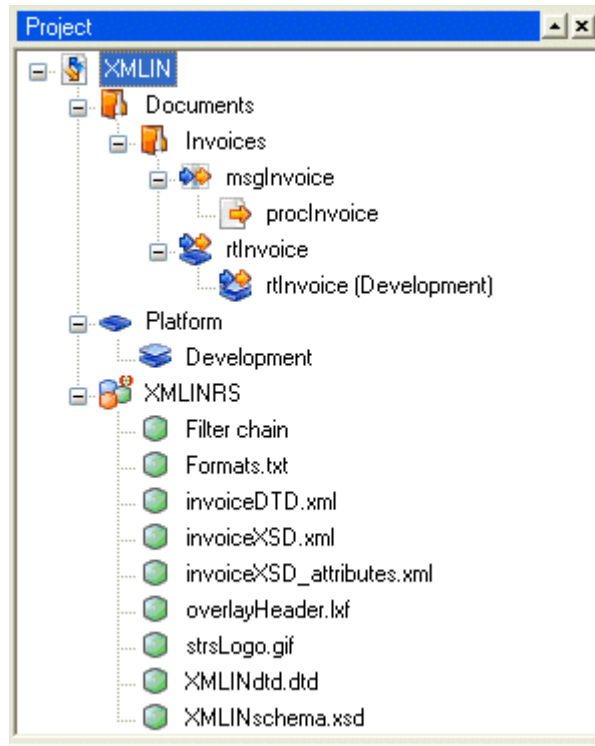
Figure 7   The Project browser.

Folders

You can use folders to structure the Project nodes.

Project nodes

You add the Project nodes either at root level, or to the appropriate folders.

Moving nodes

You can drag and drop Project nodes between the folders.

Activating Project component views

You can double-click a Project node to activate the corresponding view in the Main window. This applies to the following types of Project nodes:

- **Platform** node – Activate the generic layer in the Platform view.
- **Physical Platform layer** node – Activate the corresponding physical layer in the Platform view.
- **Message** node – Activate the corresponding Message configuration in the Message view.

- **Runtime configuration** node – Activate the generic layer in the Runtime configuration view.

- **Physical Runtime configuration layer** node – Activate the corresponding physical layer in the Runtime configuration view.

- **Resource set** node – Activate the corresponding resource set in the resource set view.

Project menu commands

There are several Project specific menu commands. See *Project browser shortcut menu commands* on page 196.

Main window

The Main window is where the component views are displayed.
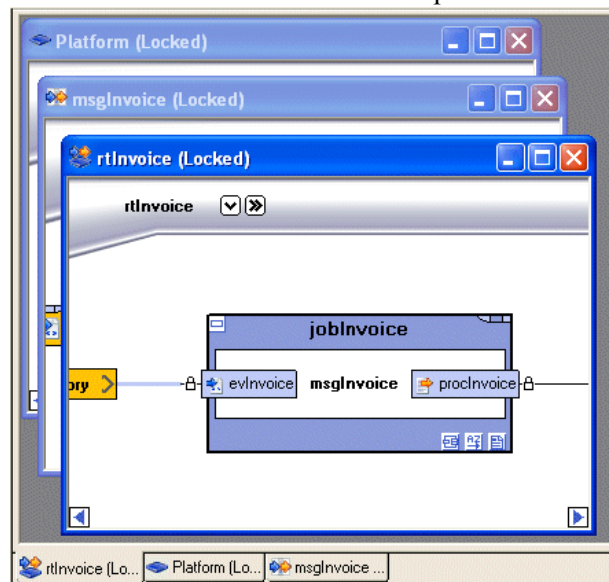
Figure 8   The Main window.

You can open the following component views in the Main window:

- *Platform view*

- *Message view*

- *Runtime configuration view*

- *Resource set view*

Activating component views

To open and activate a component view, you can double-click the corresponding node in the Project browser. If several component views are open in the Main window, you can use the window tabs to activate a component view. The tabs are displayed below the main window, and can be enabled/disabled from the View menu.

Property window

When you activate a view in the Main window, the view's properties are displayed in the Property window.
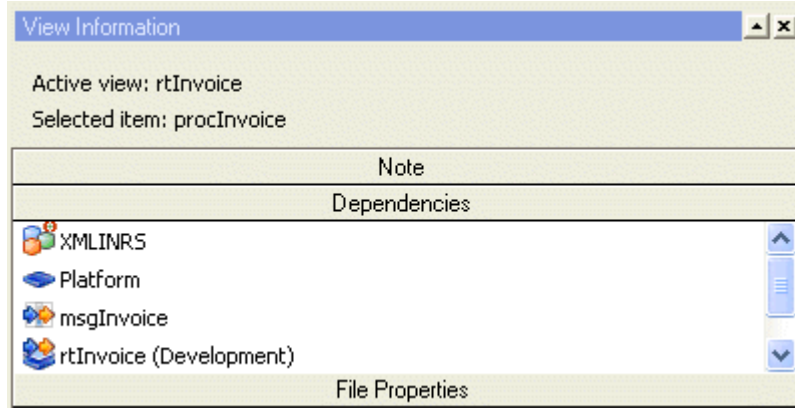
Figure 9   The Property window.

Active view and selected item

The Active view is the active view in the Main window, and the Selected item is the item selected in the active view. In the Property window example above, the Active view is a Runtime configuration, and the Selected item is a Process selected in that Runtime configuration view.

If no item is selected in the active view, the Selected item refers to the active view, i.e. the corresponding node in the Project browser.

Note tab

On the Notes tab, you can add notes to the Selected item.

Dependencies tab

There are dependencies between the nodes in the Project browser. For example, a Runtime configuration is related to settings in the Platform, resource sets, Messages, and physical layers. On the Dependencies tab, you can see the dependencies for the Active view, i.e. the corresponding node in the Project browser.

File properties tab

Each node in the Project browser is stored as a Design Center file in a Project directory. When you activate a node, its file properties are displayed on the File properties tab. These properties include the absolute path to the file, and version control status if the Project is connected to a Version Control System via Design center.

Search results window

The Search Results window displays the search results after submitting **Edit** >
Find.
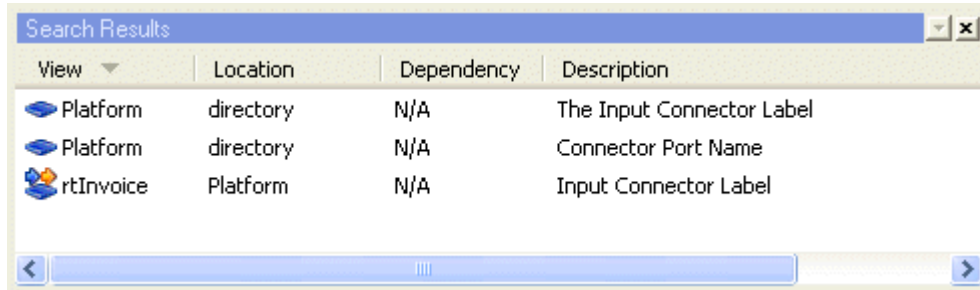
Figure 10   The Search results window.

The search results are displayed in a list. You can double-click a line to activate
the corresponding view.

Platform view

The Platform view is where you configure the Platform settings.
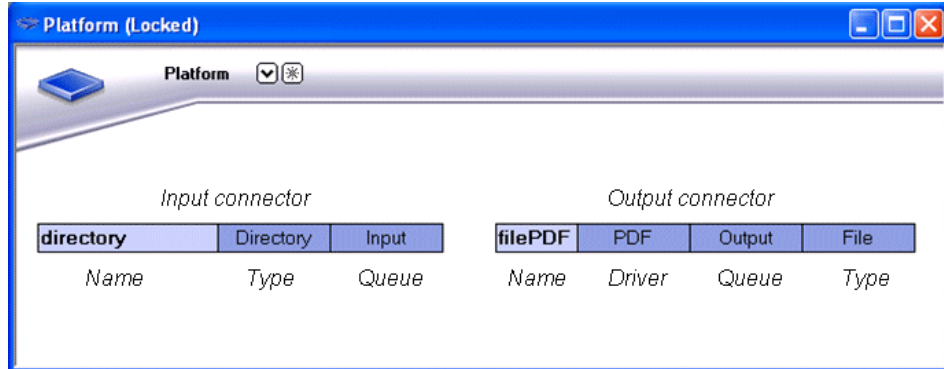
Figure 11   The Platform view.

Connectors

All connectors used in the Project are added to the Platform view. The connectors are displayed as shown in *Figure 11*. The connector contains labels that helps you identify the main features specified for the connector. The connector labels are described in the table below.

Label	Description
Name	The name given to the connector.
Type	The connector type. For example Directory input connector and File output connector.
Queue	The name of the queue used by the connector.
Driver	The type of device driver used by the output connector.

Navigating between layers

The generic layer and all physical layers are activated in the same Platform view. The banner at the top of the view shows which layer is active. You can use the drop-down list in the banner to navigate between the different layers.
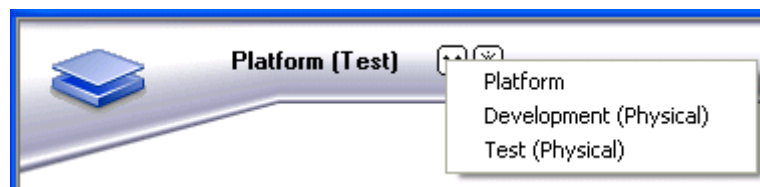
Figure 12   Drop-down list for navigation between layers.

Platform menu commands

There are several Platform specific menu commands. See *Platform menu commands* on page 212 and *Platform view shortcut menu commands* on page 213.

Message view

The Message view is where you configure Messages.
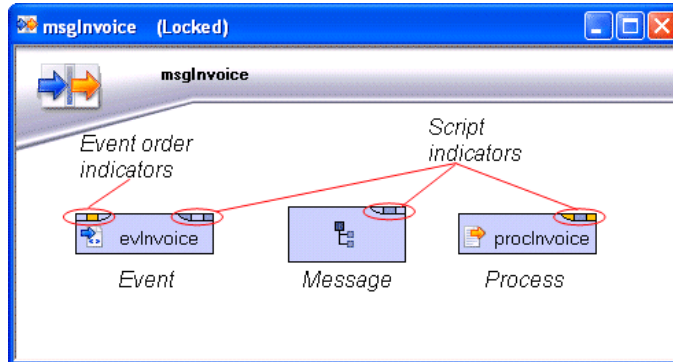
Figure 13   The Message view.

Events and Processes

Each Event and Process is displayed as a separate object in this view. You can open the Event/Process tool by double-clicking the corresponding Event/Process.

Message

The actual Message is displayed between the Events and Processes.

Message menu commands

There are several Message specific menu commands. See *Message menu commands* on page 249 and *Message view shortcut menu commands* on page 249.

Script indicators

You can add different types of scripts in the Message view. Script indicators on the Event, Message, and Process objects indicate where scripts are added.
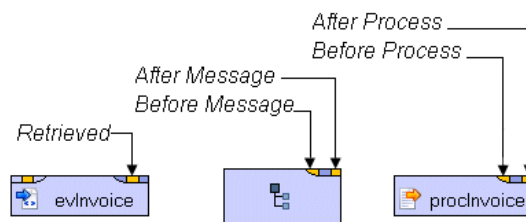
Figure 14   Script indicators.

Event order indicators

Event order indicators on the Event objects indicate the Event order (First, Repeating, or Last) for each Event in the Message.
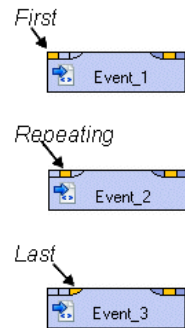
Figure 15   Event order indicators.

Runtime configuration view

The Runtime configuration view is where you connect Message configurations to the Platform, and configure Runtime configuration specific settings.
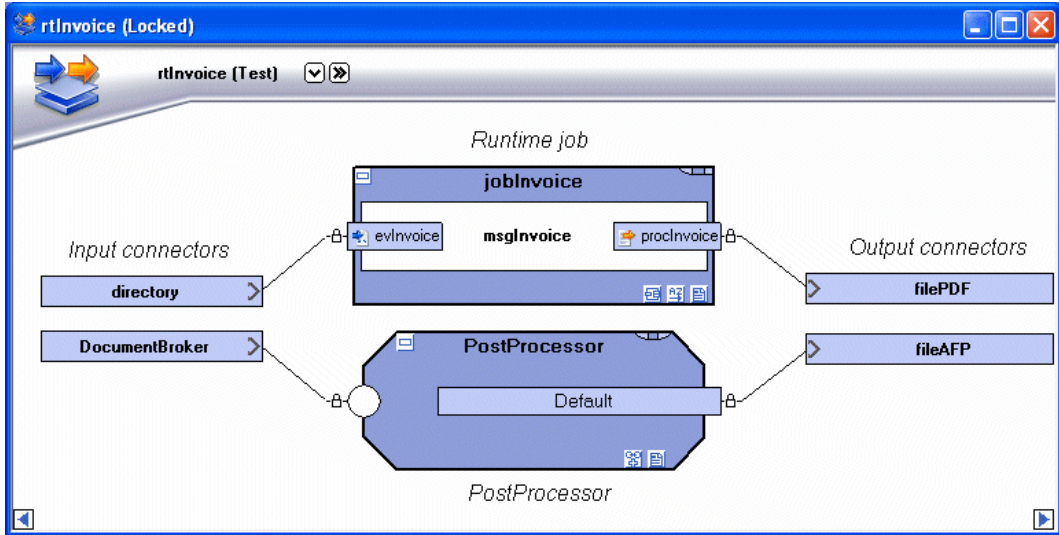
Figure 16   The Runtime configuration view.

Input connectors

The input connectors are created in the Platform and displayed in the Runtime configuration view. The connections between input connectors and Events are indicated by lines in the Runtime configuration view.
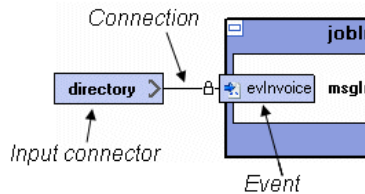
Figure 17   Connection between input connector and Event.

Output connectors

The output connectors are created in the Platform and displayed in the Runtime configuration view. The connections between Processes and output connectors are indicated by lines in the Runtime configuration view.
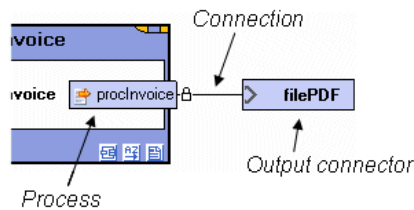
Figure 18   Connection between Process and output connector.

Runtime jobs

A Runtime job is created by default when you create a Runtime configuration. You can add new jobs to the Runtime configuration if you need to.
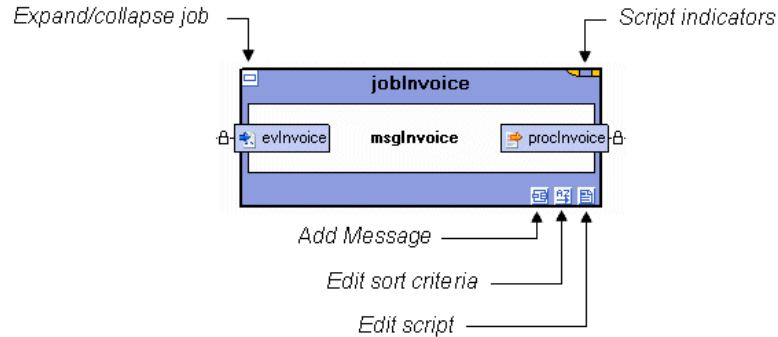
Figure 19   Runtime job.

Message configurations

You add a Message configuration to a Runtime job, and connect its Events and Processes to the appropriate input and output connectors.
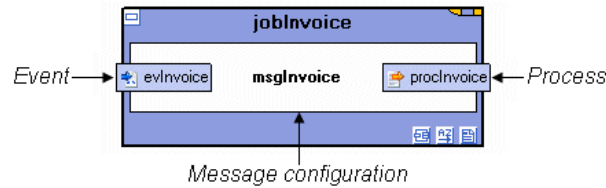
Figure 20   A Message configuration in a Runtime job.

Post-processors

You must add a Post-processor to the Runtime configuration in order to retrieve documents from a Post-processor repository.
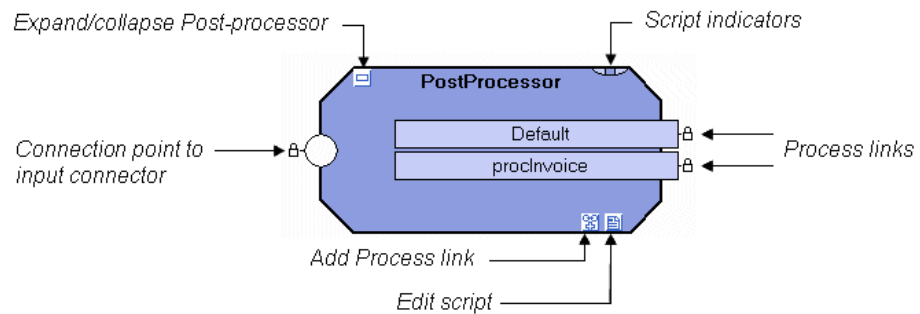
Figure 21   Post-processor.

Runtime configuration menu commands

There are several Runtime configuration specific menu commands. See *Runtime menu commands* on page 254 and *Runtime configuration view shortcut menu commands* on page 255.

Script indicators

You can add different types of scripts in the Runtime configuration view. Script indicators on the Runtime jobs and Post-processors indicate where scripts are added.
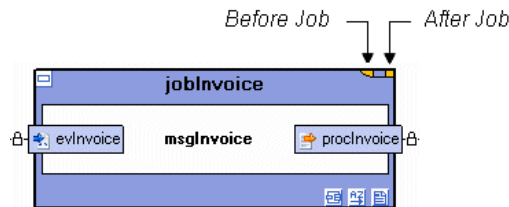
Figure 22   Script indicators on a Runtime job.

Navigating between layers

The generic layer and all physical layers are activated in the same Runtime configuration view. The banner at the top of the view shows which layer is active. You can use the drop-down list in the banner to navigate between the different layers.
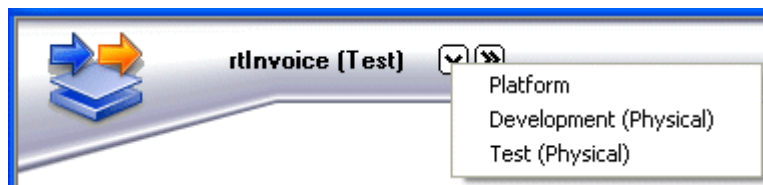
Figure 23   Drop-down list for navigation between layers.

Resource set view

The resource set view is where you administer the resources in a resource set.
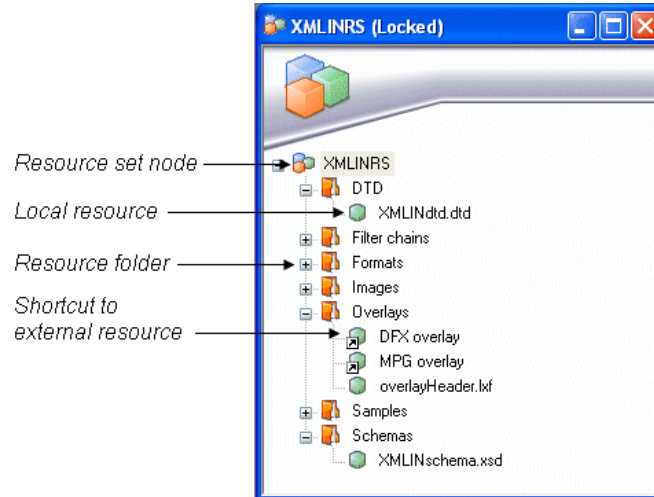
Figure 24   The resource set view.

Resource set node

When you create a resource set, it only contains a resource set node. This is the root node of the resource set, and you add all resources and folders below this node.

Folders

You can use folders to organize the resources in the resource set. A folder can contain any number of resources and subfolders. When you save the Project, the folders and subfolders are automatically added to the resource paths.

Local resources

Local resources are resources created from within the resource set. These resources are stored in the Project directory.

Shortcuts to resources

You can add resources from other Project directories to a resource set. The icons for these resources contain shortcut symbols to indicate that they are not local resources.

If you create a local resource, and then move it to another folder in the resource set, the corresponding resource file stored on disk will not be moved. The icon for a moved resource will also contain a shortcut symbol.

Resource set menu commands

There are several resource set specific menu commands. See *Resources menu commands* on page 284 and *Resource set view shortcut menu commands* on page 285.

Creating and structuring Projects

In this chapter

Creating a new Project

You can create a new Project from scratch, or you can use a Project template. See *Creating a Project using a template* on page 79 for more information about templates.

To create a new Project

1 Select **File** > **New** > **Project**. The Project Settings dialog box opens.

2 Specify the settings.
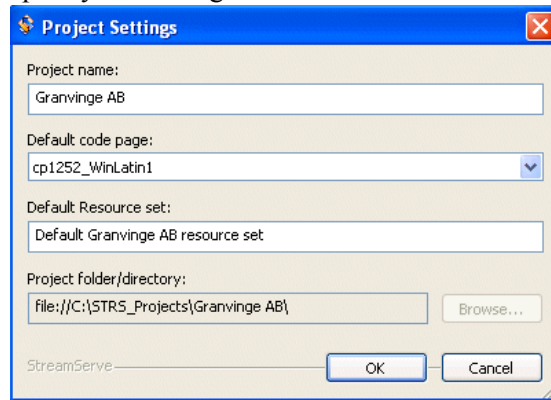
- **Project name** – The name of the Project.

- **Default code page** – The default code page you specify here will be the default code page in all code page drop-down lists in the Project.

- **Default Resource set** – The default resource set of the Project. This resource set is automatically connected to all Platforms, Message configurations, and Runtime configurations you create from within the Project.

- **Project folder/directory** – The path to the Project directory. The Design Center Project files created from within the Project are stored in this directory.

3 Click **OK**. The new Project is displayed in the Project browser.
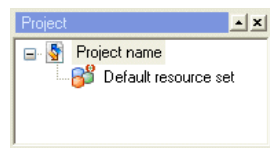
At this stage, the Project contains the Project node and a resource set node. You must now continue and add a Platform, folders, Runtime configurations, and Message configurations to the Project. See *Adding components to a Project* on page 45

Adding components to a Project

In this section

Naming Project components

You can use any name for the components in your Design Center Project with the exceptions shown below.

Maximum number of characters

The maximum number of characters in a name is 63.

Invalid characters

The following ASCII characters are invalid.

In ASCII table	Character
Character 0-31	`null` to `unit separator`
34	"
42	*
47	/
58	:
60	<
62	>
63	?
92	\
124		

Invalid strings

The following text strings cannot be used as names.

- AUX
- CLOCK$
- COM1
- COM2
- COM3
- COM4
- COM5
- COM6
- COM7
- COM8
- COM9
- CON
- LPT1
- LPT2
- LPT3
- LPT4
- LPT5
- LPT6
- LPT7
- LPT8
- LPT9
- NUL
- PRN

Adding folders to the Project tree

You can add folders to the Project tree. The folders help you organize the Project components, i.e. you can create folders for Project components that are logically connected.
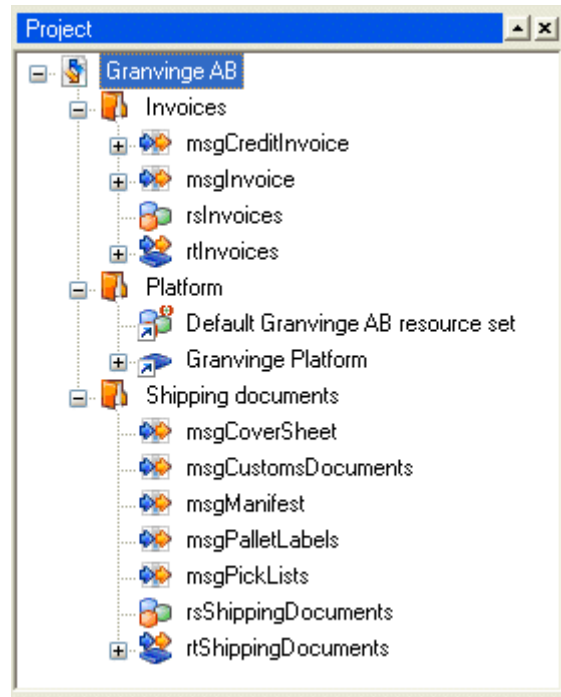
Figure 25   Folders in Project browser.

To add a new folder

1   Right-click the Project node where you want to insert the folder, and select **New** > **Folder**. A new folder is added to the Project tree.

2   Rename the folder.

Adding a Platform to a Project

You can create a Platform from within the Project, and you can also link an existing Platform from another Project to your Project. See *Linking components into a Project* on page 52 for information on how to link a Platform to your Project, and *Structuring Projects using Global, Sub, and Main Projects* on page 56 for information on when to do so.

To create a new Platform

1 Right-click the Project node where you want to insert the Platform, and select **New** > **Platform**. A new Platform node and a physical layer node are added to the Project tree.
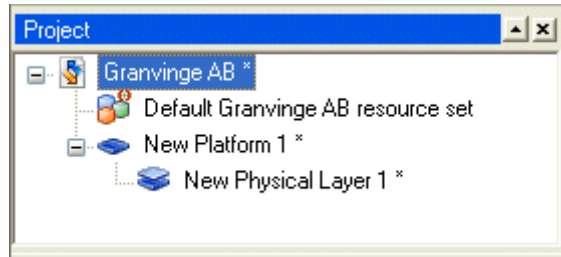
2 Rename the Platform and physical layer node.

Naming the Platform and physical layers

The name of the Platform should follow the naming standard used in your organization, for example include company name, OS, etc. The name of the physical layer should reflect the target environment in which it should be used – Development, Test, etc.

Configuring a Platform

Now you have an empty Platform with one physical layer. To complete the Platform, you must add and configure connectors, specify Platform settings, etc. See *Platform configuration procedures* on page 81 for information on how to configure a Platform.

Adding new physical layers

To be able configure Platform settings for other target environments, you must create a new physical layer for each target environment. See *Adding a physical layer* on page 51for information on how to add a new physical layer to your Project.

Adding a Message configuration to a Project

You can create a Message configuration from within the Project, and you can also link an existing Message configuration from another Project to your Project. See *Linking components into a Project* on page 52 for information on how to link a Message configuration to your Project, and *Structuring Projects using Global, Sub, and Main Projects* on page 56 for information on when to do so.

To create a new Message configuration

1   Right-click the Project node where you want to insert the Message configuration, and select **New** > **Message**. A new Message node is added to the Project tree.
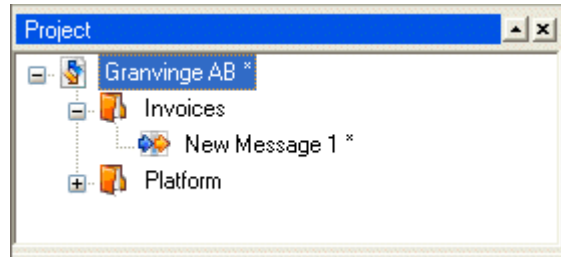
2   Rename the Message node.

Naming Message configurations

The name of the Message configuration should follow the naming standard used in your organization, for example include the document type (invoice, order, etc.) handled by the Message configuration.

Configuring a Message

Now you have an empty Message configuration. To complete the Message configuration, you must add and configure the Events and Processes. See *Message configuration procedures* on page 105 for information on how to configure a Message.

Adding a Runtime configuration to a Project

You can create a Runtime configuration from within the Project, and you can also link an existing Runtime configuration from another Project to your Project. See *Linking components into a Project* on page 52 for information on how to link a Runtime configuration to your Project, and *Structuring Projects using Global, Sub, and Main Projects* on page 56 for information on when to do so.

To create a new Runtime configuration

1   Right-click the Project node where you want to insert the Runtime configuration, and select **New** > **Runtime**. The Select Platform dialog box opens.

2 Select the Platform you want to use for your Runtime configuration, and click **OK**. A new Runtime configuration node and one or more physical layer nodes are added to the Project tree.
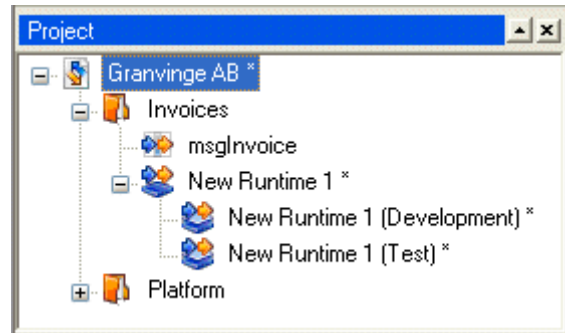
3 Rename the Runtime configuration node.

Naming Runtime configurations

The name of the Runtime configuration should follow the naming standard used in your organization, for example include the document type (invoice, order, etc.) handled by the Runtime configuration.

The physical layers are created in the Platform, and inherited by the Runtime configuration. If, for example, the Platform contains a Development and Test layer, the Runtime configuration will also contain a Development and Test layer.

Configuring a Runtime configuration

Now you have an empty Runtime configuration. To complete the Runtime configuration, you must add the appropriate Message configurations, connect the Message configurations to the connectors, etc. See *Runtime configuration procedures* on page 117 for information on how to configure a Runtime configuration.

Adding a resource set to a Project

When you create a Project, a resource set is created by default. This resource set is automatically connected to all components you create from within the Project. This means all Project components will have access to all resources in the default resource set.

You can also create additional resource sets. For example, you can create a resource set that contains resources used by a number of Message configurations in the Project. In this case, you must manually connect the resource set to the Message configurations.

To create a new resource set

1 Right-click the Project node where you want to insert the resource set, and select **New** > **Resource set**. A new resource set node is added to the Project tree.

2 Rename the resource set node.

Naming resource sets

The name of the resource set should follow the naming standard used in your organization, for example include the document type (invoice, order, etc.) of Message configurations using the resource set.

Adding resources to a resource set

Now you have an empty resource set. To complete the resource set, you must add and configure the resources. See *Resource set management procedures* on page 135 for information on how to add resources to a resource set.

Adding a physical layer

When you create a Platform, one physical layer is created by default. This physical layer is normally used for the Development environment. To be able configure Platform settings for other target environments, you need to create a physical layer for each target environment.

Platform and Runtime configuration

You add new physical layers to the Platform. When you add a new layer to the Platform, a new layer is automatically added to the Runtime configurations in the Project. For example, if you add a layer called `Test` to the Platform, a layer called `<Runtime configuration name>` `(Test)` is automatically added to the Runtime configurations.
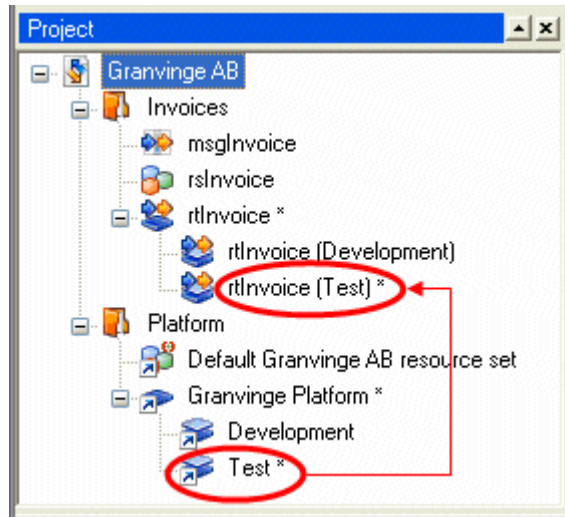
Figure 26 New Test layer in Platform and Runtime configuration.

Copy of existing layer

When you create the new layer, you create a copy of an existing layer. This means all settings in the existing layer are copied to the new layer.

To add a new physical layer

1 In the Project browser, right-click the Platform node and select **New Physical Layer**. The Select base dialog box opens.

2 Select the physical layer you want to copy, and click **OK**. The new physical layer is added to the Platform and to the Runtime configurations.

Linking components into a Project

Project components can be shared by several Projects. For example, you can create a Global Project that contains a Platform and resource set shared by several Projects (see *Structuring Projects using Global, Sub, and Main Projects* on page 56). To use an external Project component in your Project, you have to link it into your Project.

To link a component into a Project

1 Right-click the root node or folder where you want to insert the component, and select **Add to Project**. The Add to Project dialog box opens.

2 Click **Browse**. A file browser opens.

3   In **Files of type**, select the type of component (Platform, Message, Runtime, or Resource Set) to search for.

4   Browse to, and double-click the file to link to your Project. The component is added to your Project.

Where the Design Center Project files are stored

All Project components are stored as files on disk. Components that you create from within the Project are stored in the Project's Project directory.
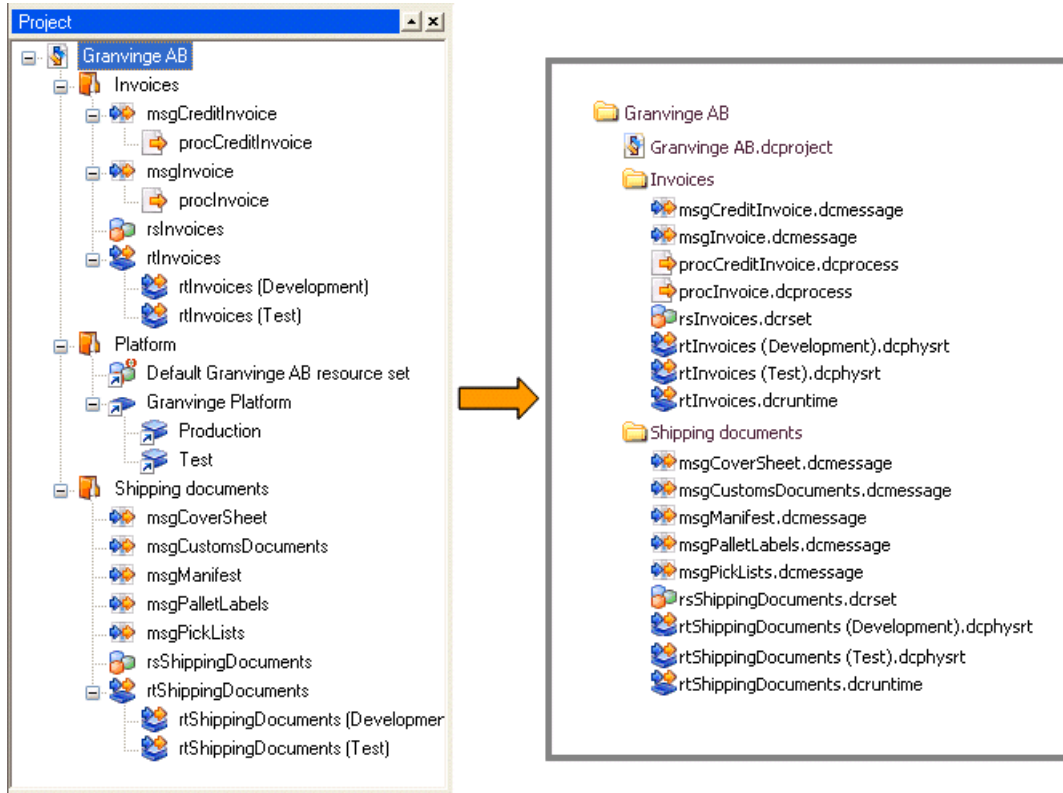
Figure 27   Example – The Project Granvinge AB and its Project directory.

As you see in , the folders in the Project browser are added to the save path for the components.

File names

A Project file is named the first time you save it. If you rename a Project component in the Project browser after you have saved it, the corresponding Project file is not renamed.

For example, if you name a Message configuration to `Invoice` and save it, the corresponding Project file will be saved as `Invoice.dcmessage`. If you later rename the Message configuration to `msgInvoice` and save it, the name of the corresponding Project file will still be `Invoice.dcmessage`.

Moving components in the Project browser

A Project file is not moved if you move the corresponding component in the Project browser. For example, if you create the Message configuration `msgInvoice` at root level in the Project browser, the corresponding Project file will be stored at root level in the Project directory. If you move `msgInvoice` to the `Invoices` folder in the Project browser, the corresponding file is not moved.

Linked in components

If you link in components to your Project (see *Linking components into a Project* on page 52), these components will not be included in the Project directory – they are linked from another Project's Project directory. In *Figure 27* on page 54 the Platform components in the Project browser are linked from another Project. As you see, the corresponding Project files are not included in the Project directory.

Shortcut symbols in the Project browser

The tree structure in the Project browser is an image of the file storage tree structure. If there is a mismatch between the two, for example if a component is linked from another Project, or if a component has been moved in the Project browser, this is indicated by a shortcut symbol attached to the node in the Project browser.

Figure 28   Shortcut symbols attached to Project browser nodes.

Structuring Projects using Global, Sub, and Main Projects

When you create a Project, you may come to a point where the Project is too large to handle – too many components are displayed in the same Design Center view, it is difficult for several developers to work with the same Project, etc. The best way to solve this problem is to divide the Project into several Sub Projects, and then link the Sub Projects to a common Main Project.

One Platform for all Projects

All Projects that are to be run by the same StreamServer application must be based on the same Platform. You should create a separate Global Project that only contains the Platform and corresponding resource set. Then you link this Platform to the other Project modules. This ensures that all Project modules are based on the same Platform.

One Sub Project per Developer

Several developers should never work with the same Project at the same time. You must therefore divide the Project into Sub Projects, where each Sub Project is handled by one Developer at a time.

Project directory structure

You create each Project module in Design Center according to standard procedures, and store each module in a separate Project directory. The figure below illustrates a directory structure example for the Project `Project_A` and the following Project modules:

* `Global_A`

* `Sub_A1`

* `Sub_A2`

* `Main_A`
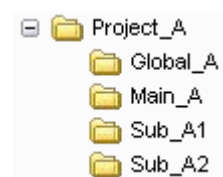
Figure 29   Project folder structure for Project_A.

About the Project modules

There are three types of Project modules:

* One **Global** Project
* Several **Sub** Projects

• One **Main** Project .

The Global Project

The Global Project contains the Platform and corresponding resource set and resources. These are the global objects that will be used by all other Project modules..
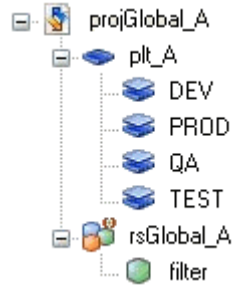
Figure 30   Global Project – Example.

The Sub Projects

A Sub Project contains Message configurations that are logically connected to each other. For example, there can be one Sub Project for invoices, another for shipping documents, etc. The same Platform is linked from the Global Project to all Sub Projects, and the appropriate Message configurations, Runtime configurations, and resource sets are created in each Sub Project.
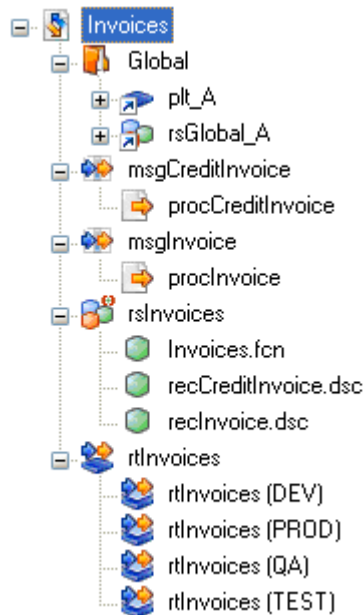
Figure 31   Sub Project – Example (⬀ indicates linked objects).

The Main Project

The Main Project is the compete Project – it includes the Global Project and all Sub Projects.
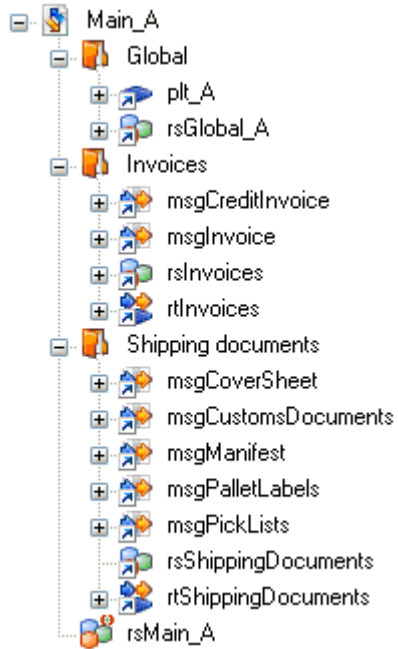
Figure 32   Main Project – Example (indicates linked objects).

Copying and reusing Project components

Design Center uses internal keys to identify the different components used in the Design Center Projects. This applies to all Design Center components represented by files:

- Platform (`*.dcplatform`)
- Physical Platform layer (`*.dcphyspf`)
- Runtime configuration (`*.dcruntime`)
- Physical runtime configuration layer (`*.dcphysrt`)
- Message configuration (`*.dcmessage`)
- Process (`*.dcprocess`)
- Resource (`*.dcres`)
- Resource set (`*.dcrset`)

This means all Design Center Project files must have unique keys. If several files have the same key, Design Center cannot identify which file to use where.

Copying components

If you copy/paste component files on disk, the keys are copied as well. This means the original file and the copy will have the same key, and Design Center cannot tell them apart. This will most likely lead to failure when you try to run the StreamServer application after exporting and deploying the Design Center Project.

If you want to copy a component in a Design Center Project, and use it in the same Project or in another Project that has any relations to the original Project, you must make sure the original component and the copy have unique keys. If you do it the right way, Design Center will generate new unique keys for the new components.

In this section

Copying Events

In this section

Copying an Event in a Project

This section describes how to copy an Event from one Message configuration to another in the same Design Center Project.

To copy an Event

In this procedure, Source Message contains the original Event, and Target Message is where to include the copy.

1 In Design Center, open the Source Message and the Target Message.

2 Right-click the Event in the Source Message and select **Copy**.

3 Right-click the Target Message and select **Paste**. The Event is pasted into the Target Message.

Copying an Event to another Project on the same computer

This section describes how to copy an Event from a Message configuration in a Design Center Project to a Message configuration in another Design Center Project. Both Design Center Projects are located on the same computer.

To copy an Event

In this procedure, Source Message contains the original Event, and Target Message is where to include the copy.

1 In Design Center, open the Target Message.

2 Select **File** > **Open**. A file browser opens.

3 Browse to and open `<Source Message>`.dcmessage. The Source Message opens in Design Center.

4 Right-click the Event in the Source Message and select **Copy**.

5 Right-click the Target Message and select **Paste**. The Event is pasted into the Target Message.

6 Exit the Source Message.

Copying an Event to a Project on another computer

This section describes how to copy an Event from a Message configuration in a Design Center Project to a Message configuration in another Design Center Project. The Design Center Projects are located on different computers.

To copy an Event

In this procedure, Source Message contains the original Event, and Target Message is where to include the copy.

1 Transfer `<Source Message>.dcmessage` from the Source computer to the Target computer.

2 In Design Center, open the Target Message.

3 Select **File** > **Open**. A file browser opens.

4 Browse to and open `<Source Message>.dcmessage`. The Source Message opens in Design Center.

5 Right-click the Event in the Source Message and select **Copy**.

6 Right-click the Target Message and select **Paste**. The Event is pasted into the Target Message.

7 Exit the Source Message.

Copying Processes

In this section

Copying a Process in a Project

This section describes how to copy a Process from one Message configuration to another in the same Design Center Project.

Note: You should not copy StoryTeller Processes that are used with, or will be used with, Composition Center.

To copy a Process

In this procedure, Source Message contains the original Process, and Target Message is where to include the copy.

1 In Design Center, open the Source Message and the Target Message.

2 Right-click the Process in the Source Message and select **Copy**.

3 Right-click the Target Message and select **Paste**. The Process is pasted into the Target Message.

Copying a Process to another Project on the same computer

This section describes how to copy a Process from a Message configuration in a Design Center Project to a Message configuration in another Design Center Project. Both Design Center Projects are located on the same computer.

Note: You should not copy StoryTeller Processes that are used with, or will be used with, Composition Center.

To copy a Process

In this procedure, Source Message contains the original Process, and Target Message is where to include the copy.

1   In Design Center, open the Target Message.

2   Select **File** > **Open**. A file browser opens.

3   Browse to and open `<Source Message>.dcmessage`. The Source Message opens in Design Center.

4   Right-click the Process in the Source Message and select **Copy**.

5   Right-click the Target Message and select **Paste**. The Process is pasted into the Target Message.

6   Exit the Source Message.

Copying a Process to a Project on another computer

This section describes how to copy a Process from a Message configuration in a Design Center Project to a Message configuration in another Design Center Project. The Design Center Projects are located on different computers.

Note: You should not copy StoryTeller Processes that are used with, or will be used with, Composition Center.

To copy a Process

In this procedure, Source Message contains the original Process, and Target Message is where to include the copy.

1   Transfer `<Source Message>.dcmessage` from the Source computer to the Target computer.

2   In Design Center, open the Target Message.

3   Select **File** > **Open**. A file browser opens.

4   Browse to and open `<Source Message>.dcmessage`. The Source Message opens in Design Center.

5   Right-click the Process in the Source Message and select **Copy**.

6   Right-click the Target Message and select **Paste**. The Process is pasted into the Target Message.

7   Exit the Source Message.

Sharing Processes

This section describes how to share a Process between several Message configurations in the same Project or in different Projects.

Sharing a Process means the Message configurations share the same Process file (`*.dcprocess`). Any modification made to the Process in one Message configuration is applied to all Message configurations that share the Process.

To add a shared Process to a Message configuration

1   In Design Center, open the Message configuration.

2   Right-click the Message configuration and select **Add Process** > **Existing Process**. A file browser opens.

3   Browse to and open the Process (`*.dcprocess`). The Process is added to the Message configuration.

Copying Message configurations

In this section

- *Copying a Message configuration in a Project* on page 63

- *Copying a Message configuration to another Project on the same computer* on page 64

- *Copying a Message configuration to a Project on another computer* on page 64

Copying a Message configuration in a Project

This section describes how to copy a Message configuration in a Design Center Project.

To copy a Message configuration

In this procedure, Source Message is the original Message configuration, and Target Message is the copy.

1   In Design Center, open the Source Message.

2   Create a new Target Message and rename it.

3   Copy the Events and Processes from the Source Message to the Target Message (see *Copying Events* on page 60 and *Copying Processes* on page 61).

Post requisites

- Before and After Message scripts are not copied. If you want to reuse scripts defined in the original Message configuration, you must add them manually to the Target Message (e.g. copy from Source Message and paste into Target Message).

- The document type connection is not copied. If you want to set a document type for the Target Message, you must do it manually.

Copying a Message configuration to another Project on the same computer

This section describes how to copy a Message configuration in a Design Center Project to another Design Center Project. Both Design Center Projects are located on the same computer.

To copy a Message configuration

In this procedure, Source Message is the original Message configuration, and Target Message is the copy.

1 Create a new Target Message and rename it.

2 Select **File** > **Open**. A file browser opens.

3 Browse to and open `<Source Message>`.dcmessage. The Source Message opens in Design Center.

4 Copy the Events and Processes from the Source Message to the Target Message (see *Copying Events* on page 60 and *Copying Processes* on page 61).

5 Exit the Source Message.

Post requisites

- Before and After Message scripts are not copied. If you want to reuse scripts defined in the original Message configuration, you must add them manually to the Target Message (e.g. copy from Source Message and paste into Target Message).

- The document type connection is not copied. If you want to set a document type for the Target Message, you must do it manually.

Copying a Message configuration to a Project on another computer

This section describes how to copy a Message configuration in a Design Center Project to another Design Center Project. The Design Center Projects are located on different computers.

To copy a Message configuration

In this procedure, Source Message is the original Message configuration, and Target Message is the copy.

1 Transfer `<Source Message>`.dcmessage from the Source computer to the Target computer.

2 Create a new Target Message and rename it.

3 Select **File** > **Open**. A file browser opens.

4 Browse to and open `<Source Message>`.dcmessage. The Source Message opens in Design Center.

5 Copy the Events and Processes from the Source Message to the Target Message (see *Copying Events* on page 60 and *Copying Processes* on page 61).

6 Exit the Source Message.

Post requisites

- Before and After Message scripts are not copied. If you want to reuse scripts defined in the original Message configuration, you must add them manually to the Target Message (e.g. copy from Source Message and paste into Target Message).

- The document type connection is not copied. If you want to set a document type for the Target Message, you must do it manually.

Sharing Message configurations

This section describes how to share a Message configuration between several Projects.

Sharing a Message configuration means the Projects share the same Message configuration file (`*.dcmessage`). Any modification made to the Message configuration in one Project is applied to all Projects that share the Message configuration.

To add a shared Message configuration to a Project

1 In Design Center, select **File** > **Add to Project**.

2 Browse to and open the Message configuration (`*.dcmessage`). The Message configuration is added to the Project browser.

Copying resources

In this section

- *Copying a Resource in a Project* on page 65
- *Copying a resource to another Project on the same computer* on page 66
- *Copying a resource to a Project on another computer* on page 66

Copying a Resource in a Project

This section describes how to copy a resource in a Design Center Project. The procedure for copying a resource from one resource set to another is the same as copying a resource in the same resource set.

To copy a resource

1   In the resource set, right-click the resource and select **Copy**.

2   In the resource set, right-click the root node or the appropriate folder and select **Paste**. A new resource is added to the resource set.

3   Rename the resource.

When copying to another resource set

When you paste a resource into another resource set, the resource name is identical to the name of the original resource. If you do not rename the resource, one of the resources (original or copy) is overwritten after export. The resource in the resource set that is exported first is the one that is overwritten.

Copying a resource to another Project on the same computer

This section describes how to copy a resource in a Design Center Project to another Design Center Project. Both Design Center Projects are located on the same computer.

To copy a resource

In this procedure, Source Resource Set contains the original resource, and Target Resource Set is where to include the copy.

1   In Design Center, open the Target Resource Set.

2   Select **File** > **Open**. A file browser opens.

3   Browse to and open *<Source Resource Set>*.dcrset. The Source Resource Set opens in Design Center.

4   Right-click the resource in the Source Resource Set and select **Copy**.

5   Right-click the Target Resource Set and select **Paste**. The resource is pasted into the Target Resource Set.

6   Exit the Source Resource Set.

Copying a resource to a Project on another computer

This section describes how to copy a resource in a Design Center Project to another Design Center Project. The Design Center Projects are located on different computers.

You can use three different methods to copy resources:

•   Extract the resource to file from the Source Project, transfer the file to the Target computer, and import the file to a resource set in the Target Project. A new unique key is generated for the copy. See *To copy a resource (import file)* on page 67.

     Note: This method is not applicable to all resource types.

- Copy the resource file (`*.dcres`) from the Source Project, transfer the file to the Target computer, and add the resource to a resource set in the Target Project. See *To copy a resource (add resource)* on page 67.

  Note: No new key is generated for the copy, which means the original resource and the copy have the same key.

- The third method is an add-on to the previous method. To create a new unique resource, you can copy the added resource, paste the copy into the resource set, and then remove the added resource from the resource set. See *To copy a resource (copy temporary resource)* on page 67.

To copy a resource (import file)

1 In the Source Project, extract the resource to file.

2 Transfer `<ExtractedFile>` from the Source computer to the Target computer.

3 In Design Center, open the Target Resource Set.

4 Right-click the root node or the appropriate resource folder and select **Import**. A file browser opens.

5 Browse to and open `<ExtractedFile>`. The Resource Type Settings dialog box opens.

6 Select the appropriate resource type and click **OK**. The resource is added to the Target Resource Set.

To copy a resource (add resource)

1 Transfer `<Source Resource>.dcres` from the Source computer to the appropriate Project folder (or sub-folder) on the Target computer.

2 In Design Center, open the Target Resource Set.

3 Right-click the root node or the appropriate resource folder and select **Add Resource**. A file browser opens.

4 Browse to and open `<Source Resource>.dcres`. The resource is added to the Target Resource Set.

To copy a resource (copy temporary resource)

1 Transfer `<Source Resource>.dcres` from the Source computer to the Target computer.

2 In Design Center, open the Target Resource Set.

3 Right-click the root node and select **Add Resource**. A file browser opens.

4 Browse to and open `<Source Resource>.dcres`. The resource (called TempResource hereafter) is added to the Target Resource Set.

5 Right-click TempResource and select **Copy**.

6 Right-click the root node or the appropriate folder in the Target Resource Set and select **Paste**. A new resource is added to the resource set.

> **7** Remove TempResource from the resource set.

Sharing resources

This section describes how to share a resource between several resource sets in the same Project or in different Projects.

Sharing a resource means the resource sets share the same resource file (`*.dcres`). Any modification made to the resource in one resource set is applied to all resource sets that share the resource.

To add a shared resource to a resource set

1 In Design Center, open the resource set.

2 Right-click the root node or the appropriate resource folder and select **Add Resource**. A file browser opens.

3 Browse to and open the resource (`*.dcres`). The resource is added to the resource set.

Configuring the Input Analyzer

The Input Analyzer enables input connectors to receive any type of input. When the connector receives input, the Input Analyzer checks if the input matches any of the input types listed for the connector. It starts with the first input type in the list, and continues until it finds a match.

Where to configure Input Analyzer settings

You configure the Input Analyzer settings in the Project Export Settings dialog box (**Edit** > **Project Export Settings**). When you select an input connector in the **Available connectors** list, the input type list is displayed in the **Input Analyzer configuration** list.
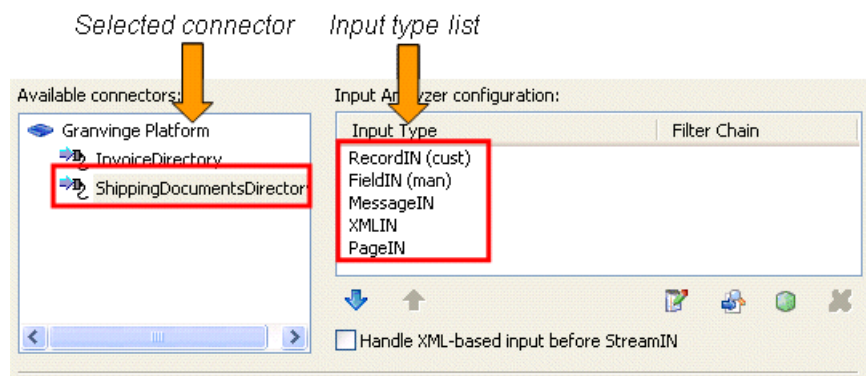
Figure 33   Input type list.

Input types grouped into categories

The input types are grouped into the following categories:

* StreamIN (FieldIN, RecordIN, and Input Analyzer enabled Agents).
* XML (PreformatIN, MessageIN, StrsXML, and XMLIN).
* PageIN.
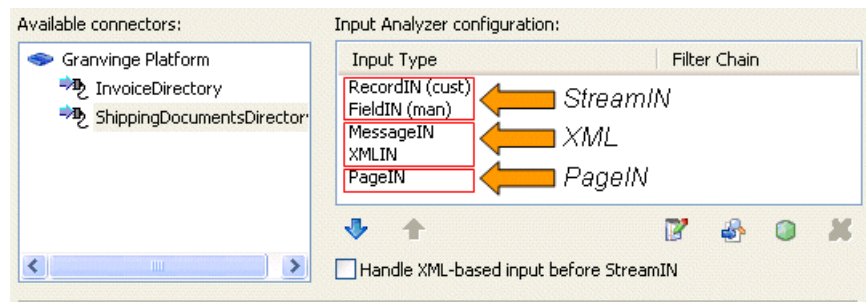
Figure 34   Input type categories.

How the categories are ordered

By default, the StreamIN category is the first category in the list, followed by the XML category. You can use the option **Handle XML-based input before StreamIN** to change the order of these categories.
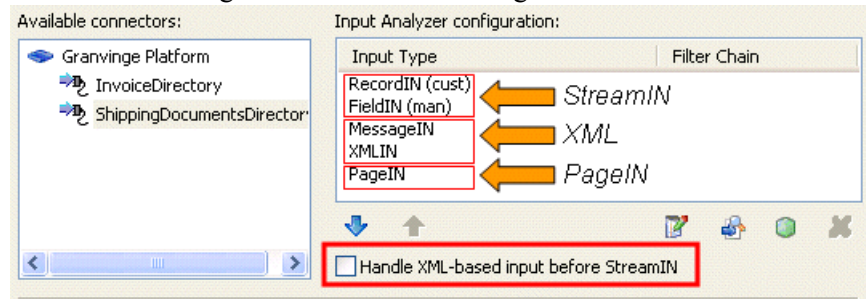
Figure 35   StreamIN handled before XML – option not selected.
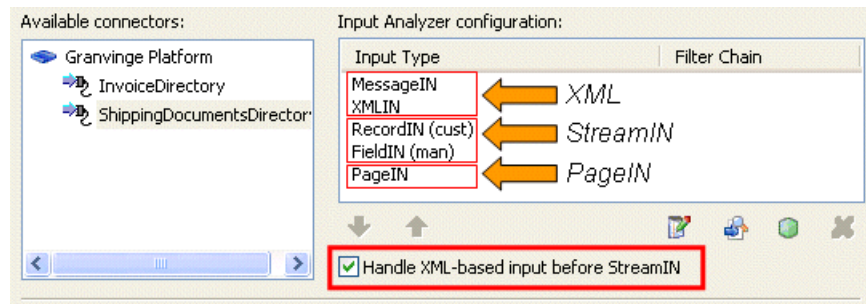
Figure 36   XML handled before StreamIN – option selected.

The PageIN category is always last – you cannot change this.

How the input types are ordered within each category

You can order the input types as you like within each category. The only restriction is that if the input type list includes XMLIN, then XMLIN must be the last item in the XML category. You can change the order within a category by moving an input type up or down using the Move arrows.

Managing notifications

The StreamServer can generate notifications for different types of objects. The notifications are used to monitor the jobs processed by the StreamServer. To retrieve the notifications from the StreamServer, you must use a Status Messenger input connector. See the *Status Messenger* documentation for details.

To enable notifications

The StreamServer application to which your Project is deployed does not generate notifications by default. First you must enable notifications in the Platform settings for the Project. This is a generic feature applied to all physical layers, which means you enable this in the generic Platform layer.

1 Activate the generic Platform layer.

2 Right-click the Platform view and select **Configure Platform**. The Configure Platform dialog box opens.

3 Select **Use notifications** and click **OK**.

To specify for which objects to generate notifications

If notifications are enabled, the StreamServer application will by default generate notifications for all Events, Processes, Runtime jobs, and connectors in the Project. If you do not need notifications from all these objects, you can select the objects manually.

1 Select **Edit** > **Project Export Settings**. The Project Export Settings dialog box opens.

2 On the Notifications tab, select **Generate notifications for these objects**.

3 Select the objects and click **OK**.
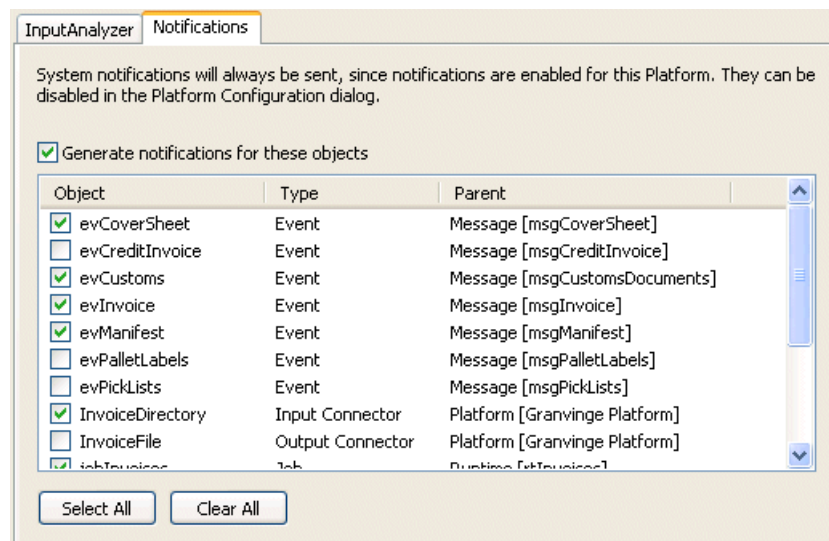
Figure 37   Notification settings.

Using custom commands and keywords

You can add custom commands and keywords in order to use StreamServer functionality that cannot be configured via the standard Design Center GUI properties. You can add custom commands and keywords to the following Platform and Runtime configuration objects:

• Platform

• Connectors (Platform)

• Queues (Platform)

• Output connectors (Runtime configuration)

• Events and Processes (Runtime configuration)

Where to configure custom commands and keywords

You configure custom commands and keywords in the Edit Custom fields dialog box (**Edit** > **Custom Settings**). You specify which access point (Platform, connector, queue, etc.) to configure, and then you enter the custom commands and keywords on the Custom sheet.
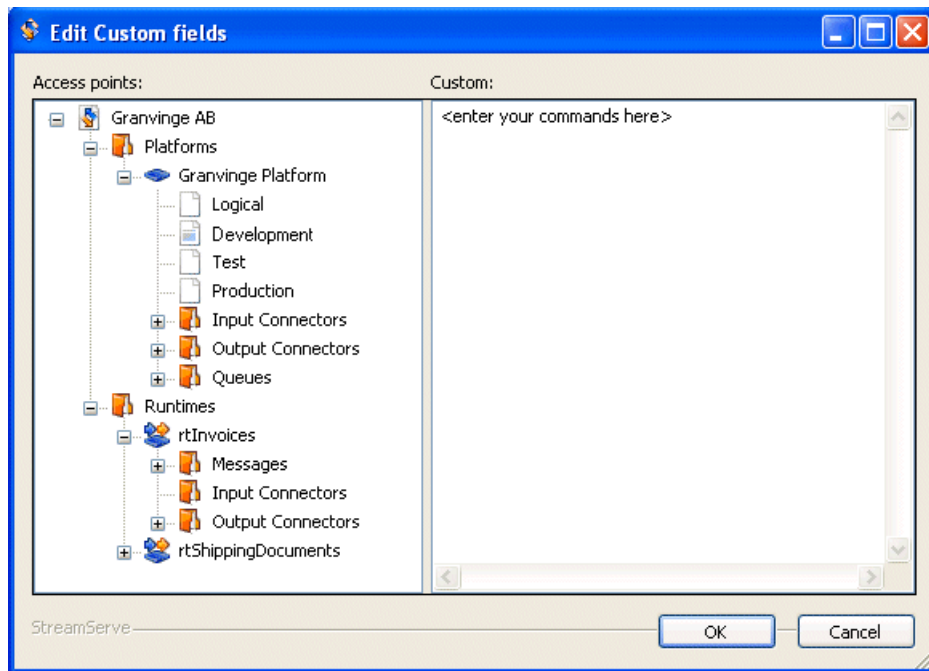
Figure 38   The Edit Custom fields dialog box.

Access points browser

The Access points browser contains all configurable objects (connector, Message, etc.). Each object is divided into one node for the generic (Logical in the GUI) layer, and one node for each physical layer (Development, Test, etc.). This means you can create different commands and keywords for each layer.

To add custom commands and keywords

1   Select **Edit** > **Custom Settings**. The Edit custom fields dialog box opens.

2   In the Access points browser, browse to and select the node you want to configure.

3   Enter your commands on the Custom sheet and click **OK**.

Scheduling actions

You can define schedules for different types of actions, for example, how frequently to collect input, spool queues, etc. You can set a single time interval, or create more complex schedules.
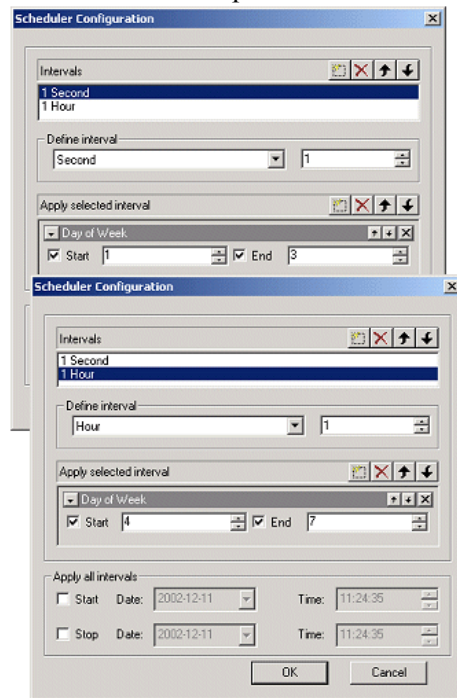
Figure 39   Example: Schedule that triggers an action once every second Monday to Wednesday, and once every hour Thursday to Sunday.

To add an interval

1   Click **New** (Intervals area). A new item is added to the list.

2   In **Define Interval**, select a unit and enter the value.

To set a time frame for a specific interval

1   Select the interval.

2   Click **New** (Apply selected interval area). A new item is added to the area.

3   Select a unit (Year, Month, etc.) for the item and enter a **Start** and, optionally, an **End** value for the time frame.

To set a time frame for all intervals

You can set a time frame for when to apply all intervals in the list. In the Apply all intervals area, use **Date** and **Time** for **Start** and **Stop** to set the frame for all intervals.

Listing used fonts

You can list all fonts used in the Project. This applies to overlays, and to PageOUT and StoryTeller Processes. The fonts are listed in the Font Dependencies dialog box, and you can see in which Processes and overlays each font is used.
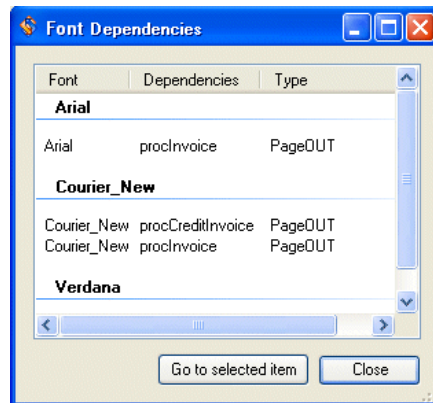
Figure 40   The Font Dependencies dialog box.

To open the Font Dependencies dialog box

Select **View** > **Font Dependencies**.

Grouping fonts by Process and overlays

By default, the fonts are grouped by font name, and in each font group you can see all Processes using the font. If you click the **Dependencies** column label, the fonts are grouped by Process and overlay. In this case you will see all fonts used in a specific Process or overlay.

Navigating to Processes and overlays

If you want to change a font in a Process, you can navigate to the Process from the Font Dependencies dialog box:

1   Select the list item of the Process, and click **Go to selected item**. The Message view opens with the Process highlighted.

2   Open and edit the Process.

The same procedure applies to overlays, where the resource set view opens with the selected overlay resource highlighted.

Packing and unpacking Projects

A Design Center Project consists of several Project files stored on disk (see *Where the Design Center Project files are stored* on page 54). If you want to move a Project to a new location, you can pack all Project files into a single package file (`*.dcpackage`). Then you move the package file to the new location, and unpack it there.

In this section

Packing a Project

You can pack any type of Project, and create a package file where all Project files and resource files used in the Project are included.
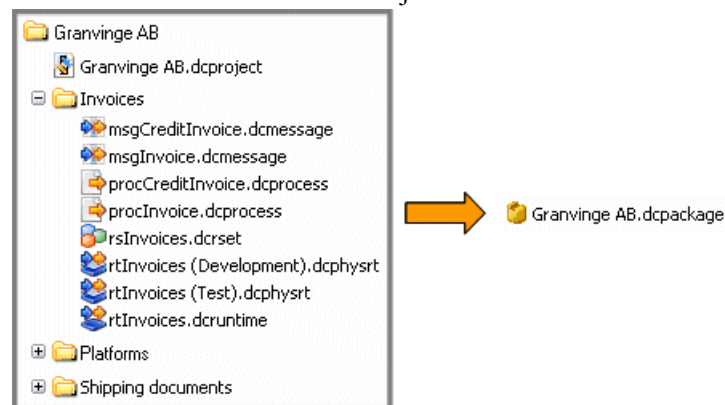
Figure 41   Packing a Project.

The figure above shows an example where the Project Granvinge AB is packed into the package file `Granvinge AB.dcpackage`. In this example, all Project files are included in the same Project directory, i.e. there are no linked components in this example. You can also pack Projects that include linked components. In this case, the linked Project files will also be included in the package file.

To pack a Project

1   Select **File** > **Pack Project**. The Project Package information dialog box opens.

2   Click **Save as Project Package**. A file browser opens.

3   Browse to the folder where you want to save the package, enter a **File name** for the package, and click **Save**.

Unpacking a Project

You can unpack a Project package, and create a copy of the packed Project.
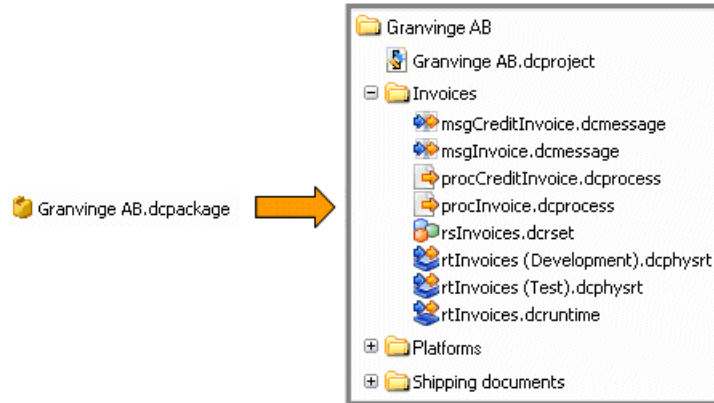
Figure 42   Unpacking a Project.

When you unpack the Project, you can use two modes:

*   **Simple mode** – use this mode if you want to create the same Project file/ folder structure as in the original Project. See *Unpacking a Project using Simple mode* on page 77.

*   **Advanced mode** – use this mode if you want to modify the Project file/ folder structure used in the original Project. See *Unpacking a Project using Advanced mode* on page 78.

Unpacking Projects that contain custom drivers

If you unpack a Project that contains custom drivers, the corresponding driver files are unpacked as well. If there is a naming conflict, you are prompted to overwrite the driver file you already have, rename the unpacked driver file, etc. This means you must decide whether to overwrite existing driver files before you unpack the Project.

Unpacking a Project using Simple mode

If you use Simple mode when you unpack a Project, you must specify a root folder, i.e. where to create the Project folder for the unpacked Project. The Project files will be stored in the same file and subfolder structure as in the original Project.

Excluding subfolders

If you want to store all Project files directly under the Project folder, i.e. exclude all sub folders, you must uncheck the **Keep folder structure** check-box.

Linked Project files

If the Project contains linked Project files, these Project files will be stored in a separate folder in the root folder you specify.

To unpack a Project

1   Select **File** > **Unpack Project**. A file browser opens.

2   Browse to and open the package file. The Unpack Project dialog box opens.

3   In **Unpack to**, specify the root folder and click **OK**.

Unpacking a Project using Advanced mode

If you use Advanced mode when you unpack a Project, you must also specify a root folder, i.e. where to create the Project folder for the unpacked Project. The default save paths for all files are the same as in Simple mode, but in Advanced mode you have the option to change the location (target folder) for each Project file.

Multiple file selection

You can specify the location for separate files, and you can also specify the location for several files at the same time using Ctrl + SELECT and SHIFT + SELECT.

Linked Project files

If the Project contains linked Project files, these Project files will by default be stored in a separate folder in the root folder you specify. In Advanced mode you have the option to change the location for these Project files.

To unpack a Project

1   Select **File** > **Unpack Project**. A file browser opens.

2   Browse to and open the package file. The Unpack Project dialog box opens.

3   In **Unpack to**, specify the root folder.

4   Specify new locations for the files you want to move, and click **OK**.

To specify new locations

1   Select the file(s) you want to move to a new location.

2   In **Target location for selected component(s)**, browse to the folder where you want to store the files.

3   Repeat *1* and *2* for each new location.

Project templates

You can use templates when you create new Projects. You can also save a Project as a template.

In this section

Creating a Project using a template

You can use templates when you create Projects. Design Center searches for available templates in the directory specified by Project Templates location in the Design Center Settings dialog box (**Tools** > **Design Center Settings**).

To open a Project template

1   Select **File** > **New** > **Create Project from Template**. The Create Project From Template dialog box opens.

2   Select the appropriate category. All available templates in the selected category are displayed in the Available templates list.

3   Select the template you want to open, and click **OK**. The Unpack Project dialog box opens.

4   In **Unpack to**, specify the root folder and click **OK**.

Downloading templates from StreamServe

The Create Project From template dialog box has a web link that you can use to download templates from StreamServe.

Creating a template

You can save a Project as a template. When you create a template, you should enter a category and description of the template. This will make it easier to identify the template.

To create a new Project template

1   Select **File** > **Pack Project**. The Project Package Information dialog box opens.

2   Enter a **Category** and **Description** and click **Save as Project Template**. The Enter Project Template Name dialog box opens.

3   Enter a name for the template and click **OK**.

Exporting a Project to disk

If Design Center is not connected to a VCS, you must export the Project to disk. See *Creating a release* on page 184 for information on how to export a Project when Design Center is connected to a VCS.

The export generates a file (`*.export`) that contains all the Platform layers in the Project. When you deploy the Project in Control Center, you must specify which physical layer to deploy.

To export a Project to disk

1   Select **Tools** > **Export**. The Export dialog box opens.

2   Specify the export settings. See *Export dialog box* on page 208.

3   Click **OK**.

Platform configuration procedures

In this chapter

Activating the Platform view

All Platform settings are configured in the Platform view. The same Platform view is used for the generic layer and all physical layers. This means you must activate the appropriate Platform layer before you can configure the settings.

To activate the generic Platform layer

In the Project browser, double-click the Platform node.

To activate a physical Platform layer

1   In the Project browser, expand the Platform node. All physical layer nodes are displayed.

2   Double-click the node for the physical layer to activate.

Managing input connectors

In this section

Adding an input connector to the Platform

You can create a connector from scratch, or you can copy-paste an existing connector.

Generic Platform layer

The number of input connectors in a Platform must be the same for all physical layers. This means you must add input connectors to the generic Platform layer.

To add a new input connector

1 Activate the generic layer.

2 Right-click the Platform view and select **New Input Connector**. A new input connector is added to the Platform.

3 Rename the input connector.

To copy a connector

1 Activate the generic layer.

2 Select a connector and copy-paste according to standard Windows procedures.

3 Rename the input connector.

To rename a connector

1 Activate the generic layer.

2 Right-click the connector, select **Rename**, and enter the new name.

Connecting a queue to an input connector

You can connect an input queue to the input connector. The input queue stores input jobs before they are processed by the StreamServer.

Generic Platform layer

An input connector must use the same queue in all physical layers. This means you must connect the queue to the input connector in the generic Platform layer.

To connect a queue to a connector

1   Activate the generic layer.

2   Right-click the connector and select **Settings**. The Connector Settings dialog box opens.

3   Click the **Queue** icon and select the appropriate **Queue**.

Configuring connector type settings

You must specify a connector type for each connector, and configure the settings for the selected connector type. For example, to receive input via email you must select the EmailIN connector type and configure the settings.

Physical Platform layer

You can use different connector types and settings in the physical layers. This means you must specify and configure the connector type for each physical layer.

To configure connector settings

1   Activate the appropriate physical layer.

2   Right-click the connector and select **Settings**. The Connector Settings dialog box opens.

3   On the Connector Settings tab, select the appropriate **Connector type** and configure the settings. See *Input connectors*.

Deleting an input connector

Generic Platform layer

The number of input connectors in a Platform must be the same for all physical layers. This means you must delete input connectors from the generic Platform layer.

To delete a connector

1   Activate the generic layer.

2   Right-click the connector and select **Delete**.

Sorting input connectors in the Platform view

You can sort the input connectors in the Platform view using drag and drop, or sort them in alphabetical order (ascending or descending).

Note: The connector presentation in the Runtime configuration views are not affected. See *Sorting connectors in a Runtime configuration view* on page 131 for information on how to sort the connectors in a Runtime configuration view.
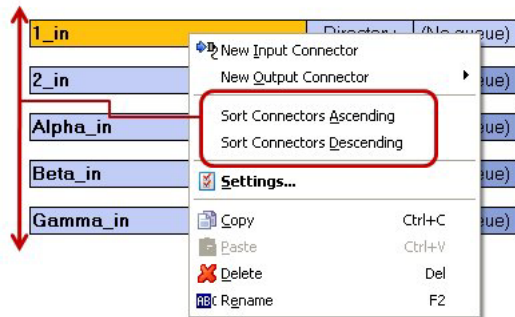
Figure 43   Sorting input connectors in the Platform view.

To sort connectors in ascending/descending order

Right-click a connector and select **Sort Connectors Ascending** or **Sort Connectors Descending**.

To move a connector

Drag the connector to the desired position.

Managing output connectors

In this section

Adding an output connector to the Platform

You can create a connector from scratch, or you can copy-paste an existing connector.

Generic Platform layer

The number of output connectors in a Platform must be the same for all physical layers. This means you must add output connectors to the generic Platform layer.

Output connector categories

The output connector is added to the generic Platform layer. In each physical layer, you must select the appropriate connector type, and configure the corresponding settings. It should be possible to select different connector types in each layer, but the connector types must belong to the same category. For example, it should not be possible to use a File output connector in the Development layer and a Fax Connect output connector in the Production layer. The output connectors are therefore divided into the following categories:

- **MailOUT-dependent** – enables selection of the connector types Mapi for MailOUT, SMTP (MIME) for MailOUT, and Topcall in the physical layers.
- **SMS** – enables selection of the connector types SMS and SMS Provider in the physical layers.
- **Fax Connect** – enables selection of the connector type Fax Connect in the physical layers.
- **Post-processor Repository** – enables selection of the connector type Post-processor repository in the physical layers.
- **Generic** – enables selection of all other types of connector types in the physical layers.

To add a connector

1 Activate the generic layer.

2 Right-click the Platform view and select **New Output Connector** > *category*. A new output connector of the specified category is added to the Platform.

3 Rename the connector.

To copy a connector

1 Activate the generic layer .

2 Select a connector and copy-paste according to standard Windows procedures.

3 Rename the connector.

To rename a connector

1 Activate the generic layer.

2 Right-click the connector, select **Rename**, and enter the new name.

Connecting a device driver to an output connector

If the output connector delivers page formatted output to the target application, you must add the appropriate device driver to the output connector. For example, if the target application is a PCL printer, you must add the appropriate PCL device driver to the output connector.

Generic Platform layer

If you connect a device driver to an output connector, you must use the same device driver in all physical layers. This means you must connect the device driver to the output connector in the generic Platform layer.

To connect a device driver

1 Activate the generic layer.

2 Right-click the connector and select **Settings**. The Output Connector Settings dialog box opens.

3 Click the **Driver** icon, select a **Device** and edit the settings.

Connecting a queue to an output connector

You can connect an output queue to the output connector. The output queue stores the output jobs before they are delivered to the target application.

Generic Platform layer

An output connector must use the same queue in all physical layers. This means you must connect the queue to the output connector in the generic Platform layer.

Available queues

By default, there are two queues available. These queues are called Input and Output. You can also create additional queues if you need to.

The input job must be queued

To be able to store output jobs in an output queue, the corresponding input job must be received via an input queue. This means the input connector that receives the input job must be connected to a queue if you want to connect a queue to the output connector.

To connect a queue to a connector

1   Activate the generic layer.

2   Right-click the connector and select **Settings**. The Connector Settings dialog box opens.

3   Click the **Queue** icon and select the appropriate **Queue**.

Specifying the output mode for an output connector

You must specify the appropriate output mode. See *Output modes* on page 20 for more information about output mode.

Generic Platform layer

An output connector must use the same output mode in all physical layers. This means you must specify the output mode in the generic Platform layer.

To specify the output mode

1   Activate the generic layer.

2   Right-click the connector and select **Settings**. The Connector Settings dialog box opens.

3   Click the **Output mode** icon and specify the output mode.

Configuring connector type settings

You must specify a connector type for each connector, and configure the settings for the selected connector type. For example, to send output to a printer you must select the Spool connector type and configure the settings.

Physical Platform layer

You can use different connector types and settings in the physical layers. This means you must specify and configure the connector type for each physical layer.

To configure connector settings

1   Activate the appropriate physical layer.

2 Right-click the connector and select **Settings**. The Connector Settings dialog box opens.

3 On the Connector Settings tab, select the appropriate **Connector type** and configure the settings. See *Output connectors*.

Deleting an output connector

Generic Platform layer

The number of output connectors in a Platform must be the same for all physical layers. This means you must delete output connectors from the generic Platform layer.

To delete a connector

1 Activate the generic layer.

2 Right-click the connector and select **Delete**.

Sorting output connectors in the Platform view

You can sort the output connectors in the Platform view using drag and drop, or sort them in alphabetical order (ascending or descending).

Note: The connector presentation in the Runtime configuration views are not affected. See *Sorting connectors in a Runtime configuration view* on page 131 for information on how to sort the connectors in a Runtime configuration view.
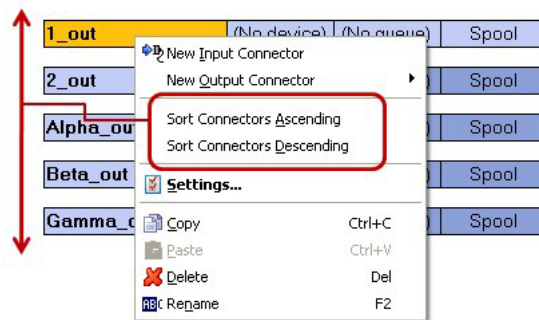
Figure 44 Sorting output connectors in the Platform view.

To sort connectors in ascending/descending order

Right-click a connector and select **Sort Connectors Ascending** or **Sort Connectors Descending**.

To move a connector

Drag the connector to the desired position.

Configuring queues

In this section

Queues overview

To be able to queue an input job, you must connect a queue to the input connector that retrieves the input job.

To be able to queue an output job, you must connect a queue to the input connector that retrieves the corresponding input job, and to the output connector that delivers the output job.

By default, the Platform includes two preconfigured input and output queues. You can connect any of these queues to your input and output connectors. You can use the preconfigured queue settings, and you can also edit the queue settings if you need to.

Generic Platform layer

The queue settings must be the same for all physical layers. This means you must configure queues in the generic Platform layer.

Where to configure queues

You configure the queues in the Manage Queues dialog box:

1 Activate the generic layer.

2 Right-click the Platform view and select **Manage Queues**. The Manage Queues dialog box opens.

In this dialog box, you can configure the settings for all existing queues. You can also create new queues, rename queues, and delete queues using this dialog box.
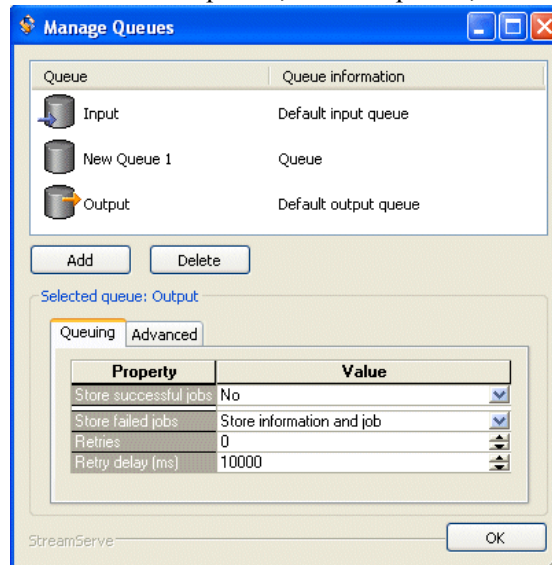
Figure 45   The Manage Queues dialog box.

Related topics

- *Creating and renaming queues* on page 91
- *Specifying the default input and output queue* on page 92
- *Specifying how to store successful jobs* on page 92
- *Specifying how to store failed jobs* on page 93
- *Specifying when to resend a failed job from a queue* on page 94
- *Specifying the maximum number of threads for a queue* on page 94
- *Specifying when to process jobs* on page 95
- *Enabling sharing of queues* on page 95
- *Storing queued documents on disk* on page 96
- *Deleting queues* on page 97

Creating and renaming queues

The Platform includes the two default queues Input and Output. You can use these queues, but it is recommended to create queues with unique names in each Design Center Project if you do not want to share the queues with other Projects (StreamServer applications).

To add a queue

1   In the Manage Queues dialog box, click **Add**. A new queue is added to the list of available queues.

2 Rename the queue.

To rename a queue

1 In the Manage Queues dialog box, right-click the queue you want to
rename, and select **Rename**.

2 Enter a new name for the queue, and press ENTER.

Specifying the default input and output queue

You can specify which input queue to use as default input queue, and which
output queue to use as default output queue. When you add a queue to an input/
output connector, and select the option **(Use default)**, the default input/output
queue you specify here will be selected.

To specify the default input queue

Right-click the queue and select **Set as default input queue**.

To specify the default output queue

Right-click the queue and select **Set as default output queue**.

Specifying how to store successful jobs

A job is stored in the queue until it is marked as successful or failed. What to do
with a job after it is marked as successful depends on the option you specify for
how to store successful jobs. These options are described in the table below.

Option	Description
No	No job or job information is stored. If you select this option, jobs cannot be resent from the queue, and no information about the job can be retrieved.
Store information only	No job is stored, but information about the job is stored. If you select this option, jobs cannot be resent from the queue.
Store information and job	The job and information about the job is stored. This is the default option. If you select this option, jobs can be resent from the queue. Successful jobs remain in the queues as long as specified in the Platform configuration dialog box (see *Configure Platform dialog box – Generic layer mode* on page 215).

When is a job marked as successful?

• A job sent from an output queue is marked as successful when the output
job is successfully delivered from the output connector.

- A job sent from an input queue is marked as successful when it is successfully processed, and when all output jobs created from this job are successfully delivered from the output connectors.

To specify how to store successful jobs

1 Activate the generic layer.

2 Right-click the Platform view and select **Manage Queues**. The Manage Queues dialog box opens.

3 Select the queue to configure.

4 Select the **Queuing** tab.

5 From the **Store successful jobs** drop-down list, select the appropriate option:

- **No**
- **Store information only**
- **Store information and job**

Specifying how to store failed jobs

A job is stored in the queue until it is marked as successful or failed. What to do with a job after it is marked as failed, and after the StreamServer fails to resend the job, depends on the option you specify for how to store failed jobs. These options are described in the table below.

Option	Description
No	No job or job information is stored. If you select this option, jobs cannot be resent from the queue, and no information about the job can be retrieved.
Store information only	No job is stored, but information about the job is stored. If you select this option, jobs cannot be resent from the queue.
Store information and job	The job and information about the job is stored. This is the default option. If you select this option, jobs can be resent from the queue. Failed jobs remain in the queues as long as specified in the Platform configuration dialog box (see *Configure Platform dialog box – Generic layer mode* on page 215).

When is a job marked as failed?

- A job sent from an output queue is marked as failed when the output connector fails to deliver the output job.

- A job sent from an input queue is marked as failed when it is not successfully processed, or when an output job created from this job fails.

To specify how to store failed jobs

1   Activate the generic layer.

2   Right-click the Platform view and select **Manage Queues**. The Manage Queues dialog box opens.

3   Select the queue to configure.

4   Select the **Queuing** tab.

5   From the **Store failed jobs** drop-down list, select the appropriate option:

- **No**
- **Store information only**
- **Store information and job**

Specifying when to resend a failed job from a queue

You can specify when the StreamServer should try to resend a failed job from the queue.

To specify when to resend a failed job

1   Activate the generic layer.

2   Right-click the Platform view and select **Manage Queues**. The Manage Queues dialog box opens.

3   Select the queue to configure.

4   Select the **Queuing** tab.

5   In the **Retries** field, specify the maximum number of times the StreamServer should try to resend the job.

6   In the **Retry delay (ms)** field, specify the time (milliseconds) the StreamServer should wait before it tries to resend the job.

Specifying the maximum number of threads for a queue

For each queue, you can specify the maximum number of threads. Several treads enables the StreamServer to process several queued jobs in parallel. This is an advantage if a large job is followed by a small job. With one single thread, the small job must wait for the large job to be completed. Note that each thread consumes system resources.

To specify the maximum number of threads

1   Activate the generic layer.

2   Right-click the Platform view and select **Manage Queues**. The Manage Queues dialog box opens.

3   Select the queue to configure.

4   Select the **Advanced** tab.

5   In the **Threads** field, specify the maximum number threads.

Specifying when to process jobs

You can specify when to process jobs. There are two options. These options are described in the table below.

Option	Description
On arrival	The job is processed as soon as possible after it arrives to the queue.
When parent completed	The job is added to the queue after the parent job is successfully processed. For example, output jobs are added to the output queue after the parent job (delivered from the input queue) is successfully processed.

To specify when to process queued jobs

1   Activate the generic layer.

2   Right-click the Platform view and select **Manage Queues**. The Manage Queues dialog box opens.

3   Select the queue to configure.

4   Select the **Advanced** tab.

5   From the **Process jobs** drop-down list, select the appropriate option (**On arrival** or **When parent completed**).

Enabling sharing of queues

If several StreamServer applications in the same application domain are used for load balancing and failover, they must be able to share queues.

Sharing is by default disabled for the queues. This to prevent from unintentional queue sharing, where one StreamServer application consumes another StreamServer application's jobs.

If several StreamServer applications should be able to share a queue, the Platform and queue names must be exactly the same in the Design Center Projects for all StreamServer applications. This because the name of the queue used by the StreamServer applications in the runtime repository consists of both the Platform and queue name defined in Design Center. Sharing must also be enabled for the queue in all Projects.

Note: If you disable sharing for a queue in `Project A`, and enable sharing for the same queue in `Project B`, then `StreamServer B` can consume `StreamServer A`'s jobs. `StreamServer A` cannot consume `StreamServer B`'s jobs in this case.

To enable sharing

1 Activate the generic layer.

2 Right-click the Platform view and select **Manage Queues**. The Manage Queues dialog box opens.

3 Select the queue to configure.

4 Select the **Queueing** tab.

5 Select **Queue can be shared**.

Storing queued documents on disk

Documents in queued input/output jobs are by default stored as blobs (Binary Large Objects) in the runtime repository. You can, for each queue, select to store the blobs as files on disk instead. The runtime repository will in this case include references to the blobs stored on disk.

There are several reasons to store blobs on disk, for example to:

• Improve performance.

• Decrease the amount of runtime repository data to backup.

• Minimize the risk to reach maximum database and tablespace limits.

Storing blobs on a network share

To store blobs on a network share, you must use UNC (Uniform Naming Convention) when you specify the path. You cannot use drive letters.

For example, you can use `\\wtvs01\data\queues` but not `H:\data\queues` when you specify the path.

When not to store blobs on disk

• If you intend to share the queue between several StreamServer applications (load balancing and fail over), you cannot store blobs on disk.

• StreamStudio Reporter can only view the status of the jobs in a queue if the blobs are stored on disk. This means StreamStudio Reporter will not be able to resend or delete jobs in this case.

• StreamStudio Collector cannot be used if you select to store blobs on disk. Note that archiving must be disabled for the output connector if you select to store blobs on disk.

To store blobs on disk

1 Activate the generic layer.

2 Right-click the Platform view and select **Manage Queues**. The Manage Queues dialog box opens.

3 Select the queue to configure.

4 Select the **Advanced** tab.

5 Select **Store blobs on disk**.

6 In **Blob path**, specify the path to the folder where to store the files.

Deleting queues

If the Platform includes queues that you do not need in your Design Center Project you can delete them. Note that the queues are deleted from the Platform in your Project, but not from the runtime repository. To delete queues from the runtime repository, you must use the Database Administration Tool.

To delete a queue

1 In the Manage Queues dialog box, select the queue you want to delete and click **Delete**. A dialog box opens.

2 Click **Yes** to confirm. The queue is deleted, and all connectors that used the queue is no longer connected to a queue.

Managing StreamServer startup arguments

Startup arguments are exported from Design Center to an argument file. The argument file is read by the StreamServer at server startup, and used when running the StreamServer application. In Design Center, you can specify arguments to add to the argument file.

Standard arguments and administrator arguments

There are two categories of arguments:

- Standard arguments exported to the argument file `start.arg`. To change these arguments, you must change the arguments in Design Center, export and redeploy the Project, and restart the StreamServer application.

- Administrator arguments exported to the argument file `sysadmin.arg`. To change these arguments, the administrator can edit `sysadmin.arg` and restart the StreamServer application. Note that if you export and redeploy the Project, `sysadmin.arg` is recreated with the arguments exported from Design Center.

Physical Platform layer

The StreamServer application to which the Project is deployed has one working directory per physical layer (you specify which layer to use when you deploy the Project). This means you specify startup arguments for each physical layer.

Where the startup arguments are configured

The startup arguments are configured in the Configure Platform Export dialog box. In this dialog box, there is one Arguments tab for standard arguments, and one Administrator Arguments tab for administrator arguments.
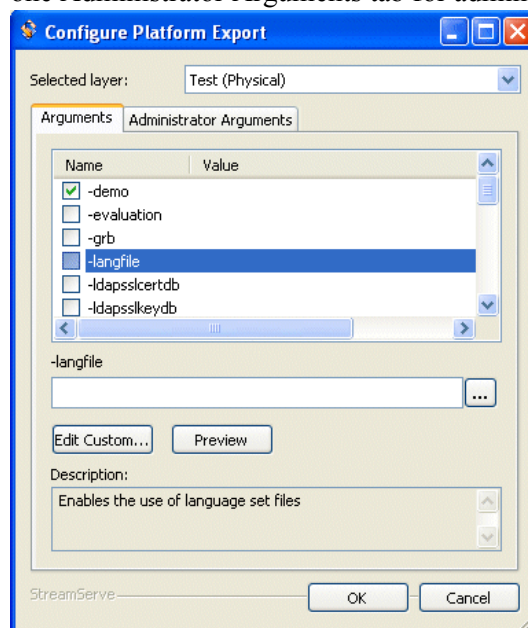
Figure 46   The Configure Platform Export dialog box.

To open the Configure Platform Export dialog box

1 Activate the appropriate physical layer.

2 Right-click the Platform view and select **Configure Export**. The Configure Platform Export dialog box opens.

3 Select the **Arguments** tab or **Administrator Arguments** tab.

Argument lists

Each argument tab contains a list of available arguments, and each argument in the list has a check-box attached.

All arguments that you check will be included in the argument file. Some arguments, for example -langfile, have values that you must specify. To specify these values, you must select the argument and specify the values.
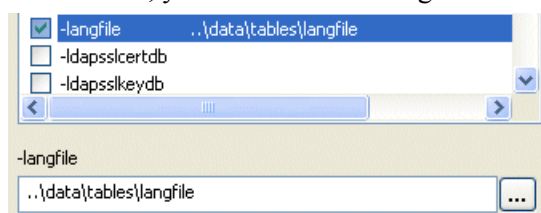
Figure 47   Specifying the value for the -langfile argument.

Custom arguments

The StreamServer can use special arguments that are not included in the argument lists. To add these arguments to the argument files, you must add them as custom arguments:

1 In the Configure Platform Export dialog box, click **Edit Custom**. The Custom Arguments dialog box opens.

2 Specify the arguments and click **OK**.

References

Startup argument reference

Log file settings

In this section

Log file settings overview

The StreamServer application to which the Project is deployed can write log messages to a log file in the working directory. In Design Center, you can specify whether to generate a log file, which type of information to include in the log file, log file truncation settings, etc.

Physical Platform layer

There is one working directory per physical layer (you specify which layer to use when you deploy the Project). This means there is one log file per physical layer, and you must specify the log file settings for each physical layer.

Where the log file settings are configured

The log file settings are configured on the Log File tab in the Configure Platform dialog box.
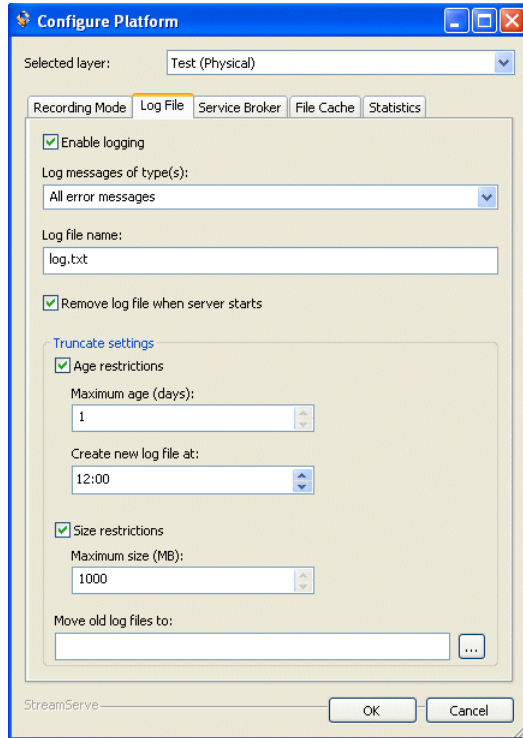
Figure 48   The Configure Platform dialog box (Log File tab).

To open the Configure Platform dialog box

1   Activate the appropriate physical layer.

2   Right-click the Platform view and select **Configure Platform**. The Configure Platform dialog box opens.

Enable/disable logging

Logging is enabled by default, and the default log file name is `log.txt`. In the Configure Platform dialog box, you can use **Enable logging** to specify whether to enable or disable logging. If yo need to, you can also specify a new name for the log file in **Log file name**.
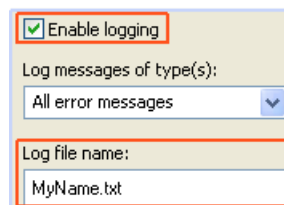
Figure 49   Enabling logging and specifying a new log file name.

Specifying which types of messages to log

In the Configure Platform dialog box, you can specify the log level, i.e. which types of error, warning, and information messages to include in the log. To do this, you must select the appropriate option in the **Log messages of type(s)** drop-down list.
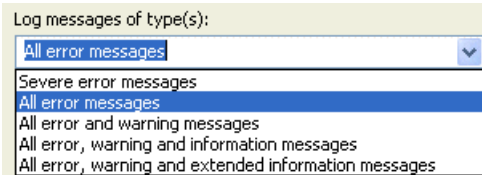
Figure 50   Specifying the log level.

Option	Description
Severe error messages	Only include severe error messages in the log. This is the recommended option for the production layer due to performance.
All error messages	Include all error messages in the log. This can be used in the production layer to get more information.
All error and warning messages	As the above, plus warning messages. This can also be used in the production layer to get even more information.
All error, warning and information messages	As the above, plus information messages. This is the recommended option for the development and test layers.
All error, warning and extended information messages	As the above, plus more information messages. This can be used in the development and test layers to get more information. Note that this option may complicate the search for relevant error messages, due to all information messages displayed in the log.

Creating a new log file at StreamServer start-up

The StreamServer application normally appends log messages to the same log file after it is restarted. If you select **Remove log file when server starts** in the Configure Platform dialog box, a new log file is created each time the StreamServer application is restarted. The old log file is deleted, and not stored anywhere.

Log file truncation

The StreamServer application normally appends log messages to the same log file. This means more and more messages will be appended to the log file. To prevent the log file from becoming to large, you can truncate the log file using time and file size as trigger. The old log file is then closed and saved, and the StreamServer application starts writing to a new log file.
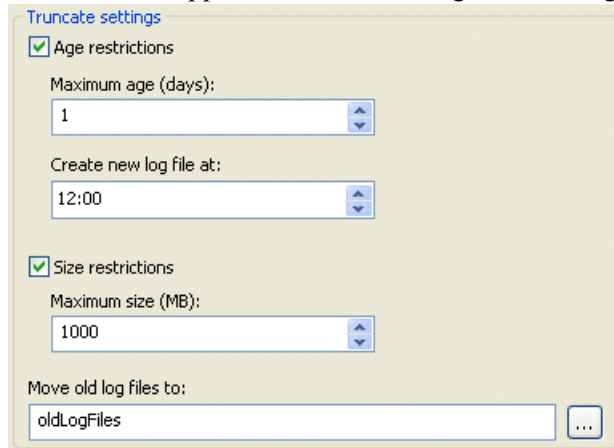
Figure 51   Log file truncation settings in the Configure Platform dialog box.

Using time as trigger

Select **Age restrictions** and use **Maximum age (days)** to specify a time trigger. When the log file reaches the time limit specified, the old log file is closed and moved to the directory specified by **Move old log files to**.

Using file size as trigger

Select **Size restrictions** and use **Maximum size (MB)** to specify a file size trigger. When the log file reaches the size limit specified, the old log file is closed and moved to the directory specified by **Move old log files to**.

Connecting resource sets to the Platform

When you create a Project, a default resource set is automatically added to the Project. This default resource set is automatically connected to the Platform. You can also connect other resource sets to the Platform.

To connect a resource set to the Platform

1 Activate the generic layer.

2 Right-click the Platform view and select **Add Resource Set**. The Select Resource Sets dialog box opens.

3 Select which resource set to connect and click **OK**.

To disconnect a resource set from the Platform

1 Activate the generic layer.

2 Right-click the Platform view and select **Remove Resource Set**. The Remove Resource Sets dialog box opens.

3 Select which resource set to disconnect and click **OK**.

Message configuration procedures

In this chapter

Activating a Message view

Each Message is configured in a separate Message view displayed in the Design Center Main window. Before you configure a Message, you must activate the corresponding Message view.

To activate a Message view

In the Project browser, double-click the Message node you want to activate. The corresponding Message view is activated in the Design Center Main window.

Managing Events

In this section

- *Adding Events to a Message configuration* on page 107
- *Configuring Events* on page 107
- *Concatenating Events* on page 108
- *Deleting an Event* on page 111

Adding Events to a Message configuration

A Message configuration normally contains one Event, but if you need to concatenate several Events in the same Message configuration you can do so (see *Concatenating Events* on page 108). In most cases you add an Event to a Message configuration by creating the Event from scratch, but you can also copy an existing Event and paste it to the Message configuration.

To add an Event

1 Right-click the Message view, select **Add Event**, and select the Event type. A new Event is added to the Message view.

2 Rename the Event.

3 Configure the Event (see *Configuring Events* on page 107).

To copy an Event

1 Right-click the Event you want to copy and select **Copy**.

2 Right-click the Message view and select **Paste**. The Event is pasted to the Message.

3 Rename the Event.

4 Configure the Event (see *Configuring Events* on page 107).

Configuring Events

After you add a new Event to a Message configuration, you must configure the Event. Event configuration includes the following:

- *Configuring triggers, fields, and blocks*
- *Specifying agent and Event order settings*
- *Specifying Runtime Event settings*
- *Scripting (retrieved scripts)*

Configuring triggers, fields, and blocks

Each Event type has its own Event tool. See the corresponding tool documentation for information on how to configure triggers, fields, and blocks.

To open the Event tool

1 Double-click the Event. The Event tool opens.

2 Configure the Event and close the tool.

Specifying agent and Event order settings

XMLIN and StreamIN Events have agent settings that you must specify in the Event Settings dialog box (see *Agent Settings tab* on page 251). Event order settings are also specified in this dialog box (see *Event Order tab* on page 252).

To open the Event Settings dialog box

Right-click the Event and select **Settings**.

Specifying Runtime Event settings

Some Event settings must be specified in the Runtime configuration view to which the Message configuration is added. See *Managing Events* on page 125.

Scripting (retrieved scripts)

You can add retrieved scripts to the Event if you need to. See *Scripting in StreamServe* for information about scripts.

To add a script to an Event

1 Right-click the Event and select **Script**. The Script editor opens.

2 Enter the script and click **OK**.

Concatenating Events

If you have several Events of the same type that form a logical entity, you can concatenate the Events in the same Message configuration.

PageIN example

If input data contains multi-page documents with different page layout, for example one layout on the first page and another layout on following pages, you can concatenate Events, i.e. create one PageIN Event for each page type in the same Message configuration.

Figure 52   Input with three different page layouts (page 1, 2, and 3).
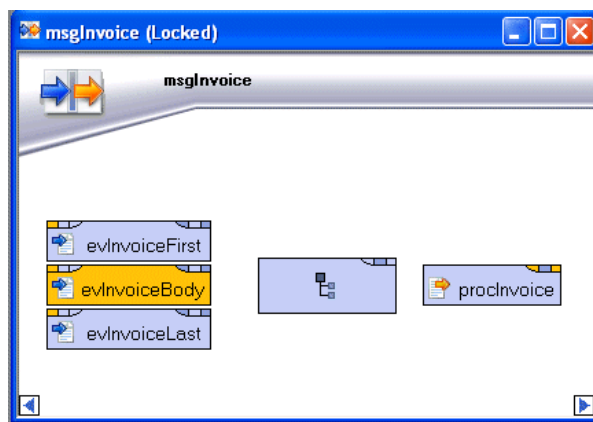
Figure 53   Message configuration with three concatenated PageIN Events.

The fields defined in the concatenated Events will be appended to the same Message structure. When all fields are appended to the Message structure, it is passed on to the Process(es) in the Message.

Patterns

You must use different patterns, or multiple patterns, to specify when to trigger which Event.

Non-recurring fields

If non-recurring fields are defined in several Events, the StreamServer tries to add the same field to the Message structure several times.

If all documents in the input contains all page types defined by the concatenated Events, you should only define non-recurring fields once in all concatenated Events, and not once per Event.

If there are documents in the input that do not contain all page types, you need to define non-recurring fields in several Events. For example, if a non-recurring field normally is defined in the first of the concatenated Events, and the input document only contains the page type specified by the second Event, this field must also be defined, with the same name, in the second Event.

Recurring fields and blocks

You can use recurring fields and blocks from all concatenated Events when you configure the Process(es) in the Message configuration. Note though that all fields and blocks must have unique names.

Block priority

If you use block priorities to group blocks, you must make sure blocks of the same type have the same priorities in all concatenated Events.

To concatenate Events

1   Add the Events to the Message view and configure the Events.

2   Configure the Process(es).

3   Right-click the first Event and select **Settings**. The Event Settings dialog box opens.

4   On the Event Order tab, select the appropriate option (First, Repeating, or Last). See *Ordering the concatenated Events*.

5   Repeat steps *3* and *4* for all other Events.

Overriding Event order settings using scripts

You can use the *EndMessage* scripting function in a Retrieved script to override the Event order settings.

Ordering the concatenated Events

You must specify how to order the concatenated Events. The output from the Events are appended to the same Message structure in the order specified on the Event Order tab. The Message structure is then passed on to the Process(es).
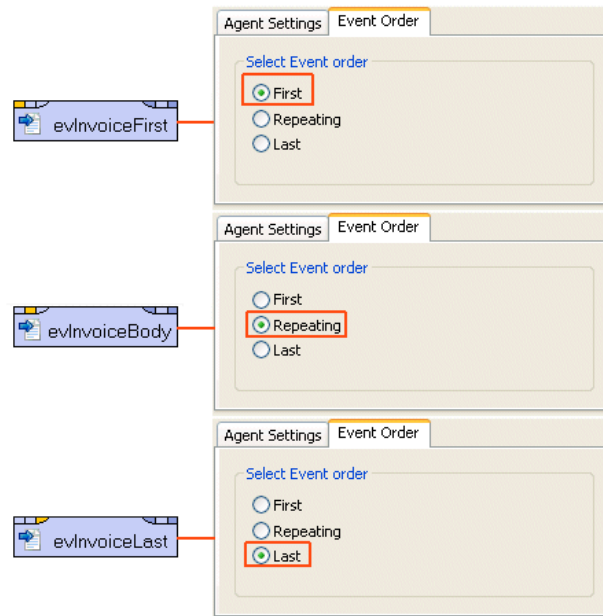
Figure 54   Ordering three concatenated Events

First

Output from a `First` Event starts the Message structure.

If there are no more Events in the Message configuration, or if the following Event in the Message configuration is also a `First` Event, the Message structure only includes output from this Event.

Repeating

Output from a `Repeating` Event is appended to the Message structure.

- If there are no preceding Events in the Message configuration, this option is the same as the `First` option.
- If there are no following Events in the Message configuration, this option is the same as the `Last` option.

Last

Output from a `Last` Event is appended at the end of the Message structure.

If there are no preceding Events in the Message configuration, the Message structure only includes output from this Event.

Deleting an Event

Right-click the Event and select **Delete**.

Managing Processes

In this section

Adding Processes to a Message configuration

A Message configuration can contain one or more Processes. In most cases, you add a Process to a Message configuration by creating the Process from scratch, but you can also reuse existing Processes:

- **Copy-paste** – copy an existing Process and paste it to the Message configuration. In this case you create a separate instance of the Process, and there is no link between the original Process and the copy.

- **Link in a Process** – link an existing Process to the Message configuration. If you modify the Process, it will be modified in all Message configurations using it.

To add a new Process

1   Right-click the Message view, select **Add Process**, and select the Process type. A new Process is added to the Message view.

2   Rename the Process.

3   Configure the Process (see *Configuring Processes* on page 112).

To copy a Process

1   Right-click the Process you want to copy and select **Copy**.

2   Right-click the Message view and select **Paste**. The Process is pasted to the Message.

3   Rename the Process.

4   Configure the Process (see *Configuring Processes* on page 112).

To link in an existing Process

Right-click the Message view, select **Add Process** > **Existing Process**, and browse to and select the Process. The Process is added to the Message view.

Configuring Processes

After you add a new Process to a Message configuration, you must configure the Process. Process configuration includes the following:

- *Configuring fields and blocks*
- *Specifying Runtime Process settings*

- *Scripting (before and after Process scripts)*

Configuring fields and blocks

Each Process type has its own Process tool. See the corresponding tool documentation for information on how to configure fields and blocks.

To open the Process tool

1   Double-click the Process. The Process tool opens.

2   Configure the Process and close the tool.

Specifying Runtime Process settings

Some Process settings must be specified in the Runtime configuration view to which the Message configuration is added. See *Managing Processes* on page 126.

Scripting (before and after Process scripts)

You can add before Process and after Process scripts to the Process if you need to. See *Scripting in StreamServe* for information about scripts.

To add a script to a Process

1   Right-click the Process and select **Script**. The Script editor opens.

2   Select a **Trigger** (Before or After).

3   Enter the script and click **OK**.

Deleting a Process

Right-click the Process and select **Delete**.

Connecting resource sets to a Message configuration

When you create a Project, a default resource set is automatically added to the Project. This default resource set is automatically connected to all Message configurations. You can also connect other resource sets to a Message configuration.

To connect a resource set to a Message configuration

1   Right-click the Message view and select **Add Resource Set**. The Select Resource Sets dialog box opens.

2   Select which resource set to connect and click **OK**.

To disconnect a resource set from the Message configuration

1   Right-click the Message view and select **Remove Resource Set**. The Remove Resource Sets dialog box opens.

2   Select which resource set to disconnect and click **OK**.

Adding scripts to a Message configuration

You can add scripts to a Message configuration at different stages:

- Retrieved scripts (Events)
- Before and After Message scripts
- Before and After Process scripts

See *Scripting in StreamServe* for information about scripts.

To add a script

1 Right-click the object (Event, Process, or Message) and select **Script**. The Script editor opens.

2 Select a **Trigger**.

3 Enter the script and click **OK**.

Runtime configuration procedures

In this chapter

Activating a Runtime configuration view

All Runtime configuration settings are configured in the Runtime configuration view. The same Runtime configuration view is used for the generic layer and all physical layers. This means you must activate the appropriate Runtime configuration layer before you can configure the settings.

To activate the generic Runtime configuration layer

In the Project browser, double-click the Runtime configuration node.

To activate a physical Runtime configuration layer

1   In the Project browser, expand the Runtime configuration node. All physical layer nodes are displayed.

2   Double-click the node for the physical layer to activate.

Adding and connecting Message configurations

In this section

Adding a Message configuration to a Runtime configuration

When you add a Message configuration to a Runtime configuration, you must add it to the appropriate Runtime job.

To add a Message configuration

1 Activate the generic layer.

2 Right-click the Runtime job and select **Add Message**. The Add Messages dialog box opens.

3 Select the Message configuration and click **OK**.

Linking input connectors to Events

When the Message configuration is added to the Runtime configuration, you must link the Event to the appropriate input connectors. For example, if you have a Message configuration that handles invoices, you must link the Event to the input connector that retrieves the invoices from the source application.

One input connector, several Events

An input connector can be linked to several Events. For example, an input connector can deliver page formatted input to a PageIN Event, and XML structured input to an XMLIN Event.
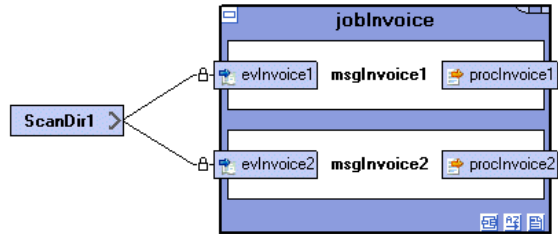
Figure 55 One input connector linked to two Events.

One Event, several input connectors

An Event can be linked to several input connectors. For example, a StreamIN Event can retrieve input from two separate directories via two separate Directory input connectors.
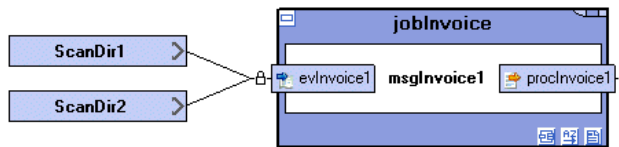
Figure 56 Two input connectors linked to the same Event.

To link an input connector to an Event

1 Activate the generic layer.

2 Draw a line between the connector and the Event (click-draw-release).

To unlink an input connector from an Event

1 Activate the generic layer.

2 Right-click the link and select **Delete Link**.

If you cannot connect

Some input types, for example Agent on a StreamIN Event, cannot share the connector with other Events.

Linking Processes to output connectors

When the Message configuration is added to the Runtime configuration, you must link the Processes to the appropriate output connectors. For example, if you have a Message configuration that handles invoices, you must link the Processes to the output connectors that deliver the invoices to the target devices (printers, faxes, etc.).
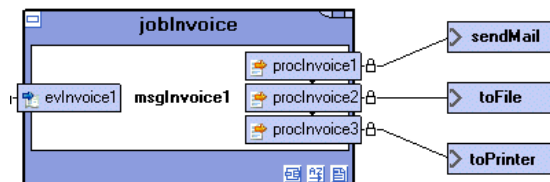
Figure 57   Processes linked to output connectors.

Static and dynamic connections

When you link a Process to an output connector, you can either create a static connection or a dynamic connection.

If you create a static connection, the output is always delivered via the same output connector. Note that you cannot create static links from a Process to several connectors.

If you create a dynamic connection, variables in the processed data determine which output connector to use.
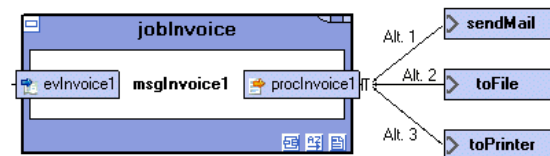
Figure 58   Dynamic connection to three output connectors.

To create a static link

1   Activate the generic layer.

2   Draw a line between the connector and the Process (click-draw-release).

To create a dynamic link

1   Activate the generic layer.

2   Right-click the Process and select **Connector Selection**. The *Connector Selection Method dialog box* opens.

3   Select the appropriate method, specify the settings, and click **OK**.

Unlinking connectors

If you want to unlink connectors from Events and Processes, you can do so. How to do it depends on whether the connection is static (input and output connector) or dynamic (output connector).

To unlink a static link

1 Activate the generic layer.

2 Right-click the link and select **Delete Link**.

To unlink a dynamic link

1 Activate the generic layer.

2 Right-click the Process and select **Connector Selection**. The *Connector Selection Method dialog box* opens.

3 Select **None** and click **OK**.

Enabling/disabling Message configurations

If you want to disable a Message configuration in a Runtime configuration, you can do so. The StreamServer application ignores all disabled Message configuration when running the Project.

Physical Runtime configuration layer

You enable/disable Message configurations per physical layer.

To disable a Message configuration

1 Activate the appropriate physical layer.

2 Right-click the Message configuration and select **Enabled** to cancel the selection.

To enable a Message configuration

1 Activate the appropriate physical layer.

2 Right-click the (dimmed) Message configuration and select **Enabled**.

Removing a Message configuration from a Runtime configuration

If you want to remove a Message configuration from a Runtime configuration, you can do so. The Message configuration will be removed from the Runtime configuration, but it will not be removed from the Project.

To remove a Message configuration

1 Activate the generic layer.

2 Right-click the Message configuration and select **Remove Message**.

Managing Runtime jobs and Post-processors

In this section

Adding, renaming, and deleting Runtime jobs

By default, a Runtime configuration contains one Runtime job. If you need to, you can add new Runtime jobs.

To add a Runtime job

1 Activate the generic layer.

2 Right-click the Runtime configuration view and select **New Job**. A new Runtime job is added to the Runtime configuration view.

To rename a Runtime job

1 Activate the generic layer.

2 Right-click the job, select **Rename**, and enter the new name.

To delete a Runtime job

1 Activate the generic layer.

2 Right-click the job, and select **Delete Job**.

Adding, renaming, and deleting Post-processors

To add a Post-processor

1 Activate the generic layer.

2 Right-click the Runtime configuration view and select **New Post-processor**. A new Post-processor is added to the Runtime configuration view.

To rename a Post-processor

1 Activate the generic layer.

2 Right-click the Post-processor, select **Rename**, and enter the new name.

To delete a Post-processor

1 Activate the generic layer.

2 Right-click the Post-processor, and select **Delete Post-processor**.

Collapsing/expanding Runtime jobs and Post-processors

You can collapse or expand the Runtime jobs and Post-processors displayed in the Runtime configuration view. When expanded, all Events, Processes, and connector links are displayed. When collapsed, all Events, Processes, and connector links are hidden.

To collapse or expand a single job

1 Activate the generic layer.

2 In the top-left corner of the job, click **-** to collapse or **+** to expand the job.

To collapse all jobs

1 Activate the generic layer.

2 Select **Runtime** > **Collapse all jobs & Post-processors**.

To expand all jobs

1 Activate the generic layer.

2 Select **Runtime** > **Expand all jobs & Post-processors**.

Scripting

You can add Before and After scripts to Runtime jobs and Post-processors if you need to. See *Scripting in StreamServe* for information about scripts.

To add a script to a Runtime job or Post-processor

1 Right-click the job and select **Script**. The Script editor opens.

2 Select a **Trigger** (Before or After).

3 Enter the script and click **OK**.

Managing Events

In this section

Ordering Events on page 125

Ordering Events

If several Events are triggered by the same pattern, they are run in the order (top down) they are displayed in the Runtime configuration view. You can drag and drop the Message configurations to change the order, and you can also specify priorities for the Events to change the order.

To specify a priority for an Event

1   Activate the generic layer.

2   Right-click the Event and select **Settings**. The Runtime Event Settings dialog box opens.

3   On the General tab, select a **Priority** (the higher the number, the lower the priority).

Managing Processes

In this section

Ordering Processes

Processes are run in the order (top down) they are displayed in the Runtime configuration view. You can drag and drop the Processes within a Message configuration to change the order.

Defining rules for triggering Processes

You can define rules (operators AND, OR, and NOT) for when to run a Process.

To define rules

1 Right-click the Process and select **Settings**. The Runtime Process settings dialog box opens.

2 On the *Rule tab*, enter the rule.

Examples

Example 1 *Use patterns in the Event to trigger the Process*

Rule: `idInvoice1 AND idInvoice2`

Result: The Process is run only if the Event contains both patterns `idInvoice1` and `idInvoice2`.

Example 2 *Use variables in the Process to trigger the Process*

Rule: `$page=3 OR $page=4`

Result: The Process is run only if the variable `$page` equals 3 or 4.

Example 3 *Use a connector name to trigger the Process*

The before script `$InConnector=InConnectorName();` is added to the Event.

Rule: `$InConnector=Input1`

Result: The Process is run only if input comes from the connector `Input1`.

Enabling/disabling Processes

If you want to disable a Process in a Runtime configuration, you can do so. The StreamServer application ignores all disabled Processes when running the Project.

Physical Runtime configuration layer

You enable/disable Processes per physical layer.

To disable a Process

1 Activate the appropriate physical layer.

2 Right-click the Process and select **Enabled** to cancel the selection.

To enable a Process

1 Activate the appropriate physical layer.

2 Right-click the (dimmed) Process and select **Enabled**.

Managing output connectors

In this section

Configuring physical output connector settings

In the Platform, you specify which connector type to use, and the default settings for the selected connector type. In the Runtime configuration, you can override the default connector settings in each physical layer.

Physical Runtime configuration layer

You configure connector type settings per physical layer.

Output mode

You configure the connector settings at either Process Begin, Document End, or Job End. The option to use depends on the output mode specified for the connector.

To configure the output connector settings

1   Activate the appropriate physical layer.

2   Double-click the output connector. The *Edit Output Connector Settings dialog box* opens.

3   Select context and click **OK**. The Runtime Output Connector Settings dialog box opens.

4   On the connector type tab, edit the connector settings.

Configuring device driver settings

In the Platform, you specify which driver type to add to the output connector, and the default settings for the selected driver type. In the Runtime configuration, you can override the default driver settings and specify Job Begin and Document Begin specific driver settings. Where to configure driver settings (Process Begin, Document Begin, or Job Begin) depends on the driver type.

Generic Runtime configuration layer

You configure device driver settings in the generic layer.

To configure device driver settings

1 Activate the generic layer.

2 Double-click the output connector. The Edit Output Connector Settings dialog box opens.

3 Select context and click **OK**. The Runtime Output Connector Settings dialog box opens.

4 Click the **Process Begin** or **Document Begin** or **Job Begin** icon.

5 On the Device Driver Settings tab, edit the device driver options.

Sheet layout

See *About sheet layout*.

Enveloping, OMR codes, and labels

See *About document sorting and bundling*.

Copying/pasting generic output connector settings

You can copy the generic output connector settings from one output connector (source connector), and paste them to another output connector (target connector). For example, if you create a new output connector with complex runtime settings (AFP driver, OMR codes, enveloping, etc.), and already have another output connector with similar settings, you can copy the settings from the existing connector, and paste them to the new connector.

Generic Runtime configuration layer

You can only copy/paste connector settings in the generic layer. All generic settings (except for notes) will be copied and pasted.

To copy/paste output connector settings

1 Activate the generic layer.

2 Right-click the source connector, and select **Copy Connector Settings**.

3 Right-click the target connector, and select **Paste Connector Settings**.

Enabling/disabling output connectors

If you want to disable an output connector in a Runtime configuration, you can do so. The StreamServer application ignores all disabled connectors when running the Project.

Physical Runtime configuration layer

You enable/disable output connectors per physical layer.

To disable an output connector

1 Activate the appropriate physical layer.

2 Right-click the output connector and select **Enabled** to cancel the selection.

To enable an output connector

1 Activate the appropriate physical layer.

2 Right-click the (dimmed) output connector and select **Enabled**.

Sorting connectors in a Runtime configuration view

The connectors in a Runtime configuration view are by default displayed in the same order as they are added to the Platform view. If you want to, you can organize the connectors as you like in each Runtime configuration view.

You can sort the connectors using drag and drop, sort them in alphabetical order (ascending or descending), or sort them in the same order as they are organized in the Platform view.
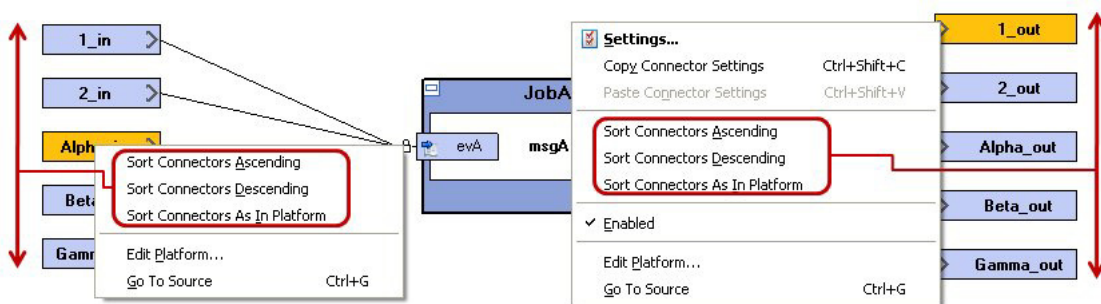
Figure 59 Sorting connectors in a Runtime configuration view.

To sort connectors in ascending/descending order

Right-click a connector and select **Sort Connectors Ascending** or **Sort Connectors Descending**.

To sort connectors as they are displayed in the Platform view

Right-click a connector and select **Sort Connectors As In Platform**.

To move a connector

Drag the connector to the desired position.

Defining Documents

In output mode Document, the output connector waits until the output documents are grouped per customer number, delivery address, etc. See *Output mode Document* on page 21 for more information about output mode Document. To enable output mode Document, you must:

• Select output mode Document in the generic Platform layer for the connector.

• Define the document, i.e. the document trigger, for the Runtime job and output connector.

Generic Runtime configuration layer

You create the Document trigger in the generic layer.

To create a Document trigger

1 Activate the generic layer.

2 Double-click the connector. The Edit Output Connector Settings dialog box opens.

3 Double-click the job for which you want to define the Document. The Runtime Output Connector Settings dialog box opens.

4 Click the **Document Trigger** icon and enter the **Document trigger variable**.

Connecting resource sets to a Runtime configuration

When you create a Project, a default resource set is automatically added to the Project. This default resource set is automatically connected to all Runtime configurations. You can also connect other resource sets to a Runtime configuration.

To connect a resource set to a Runtime configuration

1   Activate the generic layer.

2   Right-click the Runtime configuration view and select **Add Resource Set**. The Select Resource Sets dialog box opens.

3   Select which resource set to connect and click **OK**.

To disconnect a resource set from the Platform

1   Activate the generic layer.

2   Right-click the Runtime configuration view and select **Remove Resource Set**. The Remove Resource Sets dialog box opens.

3   Select which resource set to disconnect and click **OK**.

Resource set management procedures

In this chapter

Resource set management

In this section

Connecting a resource set to a Project component

The Project's default resource set is automatically connected to all Project components (Platform, Runtime configuration, and Message configuration). If you need to, you can connect other resource sets to a Project component.

To connect a resource set to a Project component

1   Activate the Project component view in the Main window (for example, double-click the corresponding node in the Project browser).

2   Right-click the component view, and select **Add Resource Set**. The Select Resource Sets dialog box opens.

3   Select the resource set to connect, and click **OK**.

To disconnect a resource set from a Project component

1   Activate the Project component view in the Main window.

2   Right-click the component view, and select **Remove Resource Set**. The Remove Resource Sets dialog box opens.

3   Select the resource set to disconnect, and click **OK**.

Adding folders to a resource set

You can structure the resources in a resource set by inserting folders and sub folders. You can then add the resources to the appropriate folders. You can also drag and drop resources within the resource set tree.

To create a resource set folder

1   Right-click the node (root node or folder) where you want to add the folder, and select **New** > **Folder**. A new folder is added.

2   Rename the folder.

Adding resources to a resource set

When you add a resource to a resource set, you create a link from the resource set to a physical resource file. This means the same resource file can be linked to several resource sets. You can add resources to a resource set in different ways:

- Create a new resource file using a resource editor, and link the resource file to the resource set. See *Creating resources using resource editors* on page 137.

- Create a new resource file by importing a source file, and link the resource file to the resource set. *Creating resources by importing source files* on page 137.

- Link an existing resource file to the resource set. *Linking existing resources* on page 138.

- Create a new font resource file by importing a font, and link the resource file to the resource set. *Importing fonts* on page 138.

Creating resources using resource editors

Using this method, you create a resource file in your Project directory, and link the resource file to the resource set.

To edit the resource, you must use the resource editor. See *Editing resources using resource editors* on page 139.

To create a resource using a resource editor

1 Right-click the resource set, select **New** and the resource type. A new resource is added to the resource set.

2 Rename the resource.

3 Double-click the resource. The resource editor opens.

4 Configure the resource, save the resource, and close the editor.

Creating resources by importing source files

Using this method, you create a resource file in your Project directory, and link the resource file to the resource set.

To edit the resource, you can edit the source file, and then update the resource. See *Editing imported resources* on page 140. If you have specified a resource editor for the resource, you can also use the resource editor to edit the resource. See *Editing resources using resource editors* on page 139.

To create a resource by importing a source file

1 Right-click the resource set, select **Import** and browse to and select the source file. The Resource Type Settings dialog box opens.

2 Specify the resource type and click **OK**. A new resource is added to the resource set.

3 Rename the resource.

Linking existing resources

Using this method, you can link an existing resource file, located in another Project's Project directory, to the resource set. For example, you can link a logotype shared by several Projects to the resource set.

If you edit a linked resource, it will be changed in all resource sets using it.

To link in an existing resource

Right-click the resource set, select **Add Resource** and browse to and select the resource file. A new resource is added to the resource set.

Importing fonts

This is a special case of importing source files. Using this method, you can manually import fonts from the Fonts directory to the resource set.

To import fonts

1   Right-click the resource set, and select **Import Font**. The Select Fonts dialog box opens.

2   Specify the fonts to import, and click **OK**. The new resources are added to the resource set.

Importing all used fonts

There is also an alternative to import fonts manually. You can select to add all used fonts to a resource set when you export the Project. This ensures that all fonts are available if you move the Project to a new machine.

You do this in the Export dialog box by selecting the option **Add exported fonts to Platform's default resource set**.

Resource management

In this section

- *Editing resources using resource editors* on page 139
- *Editing imported resources* on page 140
- *Changing the resource type* on page 140
- *Specifying resource editors* on page 140
- *Extracting a resource to file* on page 141
- *Showing resource dependencies* on page 141

Editing resources using resource editors

The resource types shown in the table below have resource editors that you can use when editing the resource.

Resource type	Default resource editor
Description file	UTF8 Edit
Document Type	Document Type Editor
Filter Chain	Filter Chain Editor
Function file	Script Editor
Layout Template	UTF8 Edit
Metadata Group	MetaData Group Editor
OutputPlus configuration	UTF8 Edit
Overlay	Overlay Editor
Post-processor Query	Post-processor Repository Tool
RDI Setting	UTF8 Edit
Rule	Rule Editor
Sample	UTF8 Edit
Security configuration	Security Editor
Sheet Layout	Sheet Layout Editor
StoryTeller Document	StoryTeller tool
SXD file	UTF8 Edit

Resource type	Default resource editor
Table file	UTF8 Edit
XDP Template	UTF8 Edit
XML Stylesheet	UTF8 Edit

If you want to edit other resource types using a resource editor, you must specify which editor to use. See *Specifying resource editors* on page 140.

To edit a resource using a resource editor

1 Double-click the resource. The resource editor opens.

2 Edit the resource file, save it, and close the editor.

Editing imported resources

If you have created a new resource using the **Import** command, you can edit the source file, and then apply the changes to the resource.

To edit an imported resource

1 Edit the source file.

2 Right-click the resource and select **Update From Origin**.

Changing the resource type

When you create a resource using the **New** command, you select which resource type to create. When you create a resource using the **Import** command, you specify the resource type for the imported resource. In both cases, you can change the resource type afterwards.

To change the resource type

1 Right-click the resource and select **Resource Type**. The Resource Type Settings dialog box opens.

2 Select the resource type, and click **OK**.

Specifying resource editors

When you create a resource using the **Import** command, you must specify a resource type for the imported resource. Some resource types, for example **Image**, do not have default resource editors. In this case, you can specify a editor for the imported resource.

When you create a resource using the **New** command, you select which resource type to create. All these resource types have default resource editors. You can change the resource editor for all resource types but the following:

- **Document Type**
- **Filter Chain**
- **Metadata Group**
- **Post-processor Query**
- **RDI Setting**
- **Security configuration**
- **StoryTeller document**

To select a resource editor

1   Right-click the resource and select **Resource Editor**. The Set Resource Editor dialog box opens.

2   Select **Pick resource editor**, browse to and select the resource editor, and click **OK**.

Extracting a resource to file

You can extract the data embedded in a resource file. For example, if you have an image resource, you can extract the image data to an image file. Note that you cannot extract data from all resource types. For example, you cannot extract data from filter chains or security configurations.

To extract the resource contents

1   Right-click the resource and select **Extract To File**. A file browser opens.

2   Specify the file path, including file name and extension, and click **OK**.

Showing resource dependencies

You can retrieve information about which objects (Processes, overlays, etc.) are affected when you modify a resource. This applies to the following resource types:

- Image
- Overlay
- Sheet Layout
- Metadata Group
- Rule

The objects are listed in the Show Dependencies dialog box.
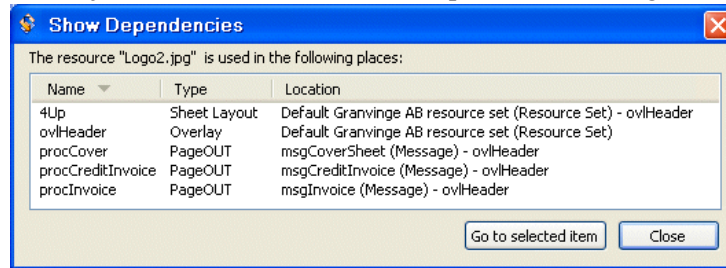
Figure 60   The Show Dependencies dialog box.

To open the Show Dependencies dialog box

Right-click the resource, and select **Show Dependencies**.

Navigating to the objects

You can navigate to the objects from the Show Dependencies dialog box:

1   Select the object, and click **Go to selected item**. The corresponding view
opens with the object highlighted.

2   Open the object.

Dynamic selection using aliases

In this chapter

Alias overview

You can use aliases to configure settings dynamically. You can do this for various features, such as selection of overlays, output connectors, driver settings, etc.

Several alternatives

An alias includes several alternatives. The alias also includes the conditions for when to select a specific alternative. For example, an alias for output connector selection contains several connector alternatives, and the conditions for when to select a specific connector.

Two types of aliases

There are two types of aliases:

*   Script alias, where you use scripting to determine which alternative to select.

*   Lookup alias, where you use lookup tables to determine which alternative to select.

Script alias

The script contains a number of statements to determine which alternative to select. The example below shows a script for output connector selection, where the alternatives (connector names) are `spoolSWE` and `spoolFIN`.

```
if(&countryCode = "SWE")
{
   $connector = "spoolSWE";
}
if(&countryCode = "FIN")
{
   $connector = "spoolFIN";
}
```

See *Script alias* on page 146 for more information.

Lookup alias

The lookup table is a text file that includes all the alternatives. The example below shows a lookup table for output connector selection, where the alternatives (connector names) are `spoolSWE` and `spoolFIN`.

```
SWE    spoolSWE
FIN    spoolFIN
```

See *Lookup alias* on page 148 for more information.

Default alternative

You must specify a default alternative. This alternative is used if there is no matching condition specified in the alias. For example, the script alias above includes conditions for `&countryCode="SWE"` and `&countryCode="FIN"`. If `&countryCode` is neither `SWE` nor `FIN`, the default alternative is used.

When to use script alias, and when to use lookup alias

There are no general rules for when to use script alias, or when to use lookup alias. There are however some features, for example font size and font color, that do not support lookup alias.

Where to set the alias

You set aliases in the Design Center user interface at the same place as you set fixed values. Instead of setting a fixed value, you select a default alternative, specify the type of alias (script or lookup), and specify the alias parameters.

Script alias

A script alias consists of a key, a script, and an alias variable.

Key

The key is used in the script conditions. You can use a field reference (`&fieldname`) or a variable (`$variable`) as key.

Script

In the script, you use the key to specify conditions for when to select a specific alternative. A connector selection example is shown below:

```
//Select the appropriate output connector
if(&countryCode = "SWE")
{
    $connector = "spoolSWE";
}
if(&countryCode = "FIN")
{
    $connector = "spoolFIN";
}
```

Alias variable

The alias variable is the variable you use when you set the alias in the Design Center user interface. The value of this variable is set by the script. In the script above, `$connector` is the alias variable.

Note that the alias variable must be a variable (`$variable`). It must not be a field reference (`&fieldname`).

Setting a script alias

To set a script alias for a feature, you select the alias type **Variable** and specify an alias variable. The figure below shows the Connector Selection Method dialog box where you use the alias variable `$connector` to select the appropriate output connector.
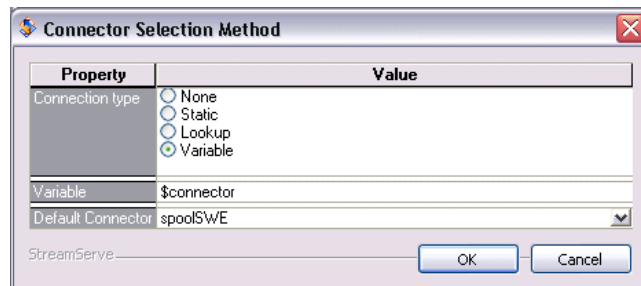
Figure 61   Script alias for connector selection.

Script alias example

In this example, a script alias is used to select the appropriate output connector:

- **spoolSWE** – output connector used for invoices with country code SWE. This is also the default connector alternative.

- **spoolFIN** – output connector used for invoices with country code FIN.

Key

The country code is used to determine which connector to select. In this example, the field reference &countryCode is used as key. This is a reference to the Event field countryCode.

Script

The script is a Before Message script that uses &countryCode to determine which connector to select, and sets the value of the alias variable $connector to the name of the selected connector.

```
//Select the appropriate output connector
if(&countryCode = "SWE")
{
    $connector = "spoolSWE";
}
if(&countryCode = "FIN")
{
    $connector = "spoolFIN";
}
```

Setting the alias

The alias is set in the Connector Selection Method dialog box.
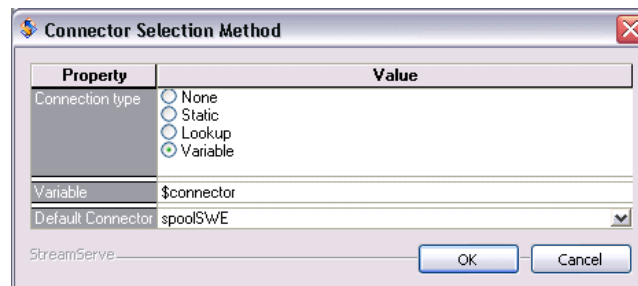
How it works

1 The StreamServer application processes an invoice.

2 The field reference &countryCode in the current invoice equals SWE.

3 The Before Message script is run, and $connector is set to spoolSWE.

4 The connector alias is set to spoolSWE, and the invoice is sent to the connector spoolSWE.

Lookup alias

A lookup alias consists of a key and a lookup table.

Key

The key is used to find the appropriate alternative in the lookup table. You must use a variable (`$variable`) as key, for example `$countryCode`.

Lookup table

The lookup table is a resource that you add to the appropriate resource set. The lookup table contains two columns:

- The first column contains the key value.

- The second column contains the alternative associated with the key value.

A connector selection lookup table is shown below:

```
SWE     spoolSWE
FIN     spoolFIN
```

Setting a lookup alias

To set a lookup alias for a feature, you select the alias type **Lookup** and specify a key variable and lookup table. The figure below shows the Connector Selection Method dialog box where you use the key variable `$countryCode` and lookup table `connectors.tbl` to select the appropriate output connector.
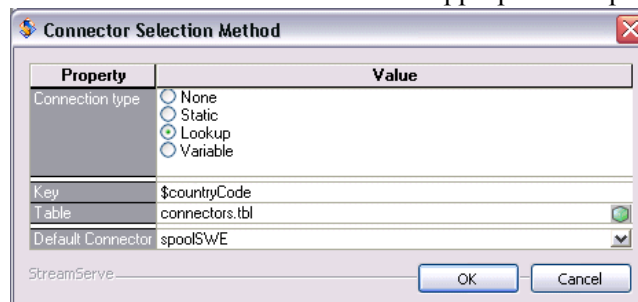
Figure 62   Lookup alias for connector selection.

Lookup alias example

In this example, a lookup alias is used to select the appropriate output connector:

- **spoolSWE** – output connector used for invoices with country code `SWE`. This is also the default connector alternative.

- **spoolFIN** – output connector used for invoices with country code `FIN`.

Key

The country code is used to determine which connector to select. In this example, the variable `$countryCode` is used as key. This is a variable created for the Event field `countryCode`.

Lookup table

The lookup table is called `connectors.tbl`. It contains two rows, where each row consists of a key value (the value of `$countryCode`) and an alternative associated with the key value:

```
SWE    spoolSWE

FIN    spoolFIN
```

Setting the alias

The alias is set in the Connector Selection Method dialog box.
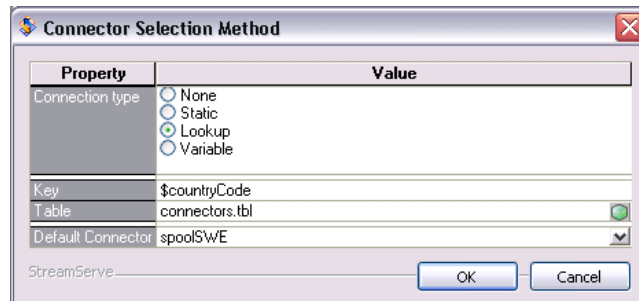
How it works

1   The StreamServer application processes an invoice.

2   The field variable `$countryCode` in the current invoice equals `SWE`.

3   The StreamServer application finds the key value `SWE` and the corresponding connector alternative `spoolSWE` in the lookup table.

4   The connector selection alias is set to `spoolSWE`, and the invoice is sent to the connector `spoolSWE`.

Filters and filter chains

In this chapter

About filters and filter chains

You can apply filters to input and output data. For example, if the input data is compressed you must apply a decompression filter to the input data. See *Filter reference* on page 155 for information about available filters.

Filter chains

When you create a filter, you must first create a filter chain resource. Then you add the filter to the filter chain, and configure the filter settings. See *Creating filter chains* on page 153 for information on how to create a filter chain.

Adding filters to a connector

To add a filter to a connector, you must add a filter chain that contains the filter to the connector. See *Adding filter chains to connectors* on page 154 for information on how to add a filter chain to a connector.

Creating filter chains

You must create the filter chain in a resource set connected to the Platform.

To create a filter chain

1   Open the resource set.

2   Right-click in the resource set and select **New Resource** > **Filter Chain**. A new filter chain is added to the resource set.

3   Rename the filter chain.

To add a filter to a filter chain

1   Double-click the filter chain. The filter chain editor opens.

2   Right-click the flow bar, select **Add Filter**, and select the filter type. The filter is added to the flow bar.

3   Select the filter and edit the properties.

Several filters in one filter chain

A filter chain can contain several filters. The filters are applied in order they are displayed in the filter chain editor.

To order filters in a filter chain

Drag the filters to the appropriate positions in the flow bar.

Adding filter chains to connectors

Adding filter chains to connectors in the Platform

In the Platform, you can add filter chains to both input and output connectors. In this case the filter chain is applied to all data sent through the connector. See *Adding a filter chain to a connector* on page 154 for information on how to add a filter chain to a connector.

Applying filter chains per input type

Filter chains can also be applied per input type. For example, if you have an input connector that receives both page formatted and record based input, you can apply one filter chain to the page formatted input, and another filter chain to the record based input. If you also have added a filter chain to the input connector in the Platform, this filter chain is applied to both the page formatted and record based input. See *Applying filter chains per input type* on page 154 for information on how to apply filter chains per input type.

Adding a filter chain to a connector

1   Activate the generic Platform layer.

2   Right-click the connector and select **Settings**. The Connector Settings dialog box opens.

3   Click the **Filter Chain** icon.

4   From the **Look in** drop-down list, select the resource set that contains the filter chain you want to add. All filter chains in the selected resource set are displayed in the list of items. If the filter chains is located in a folder, you must double-click the folder to display the filter chains.

5   Double-click the filter chain you want to add and click **OK**.

Applying filter chains per input type

1   In the Project browser, right-click the Project node and select **Project Export Settings**. The Project Export Settings dialog box opens.

2   Select the **InputAnalyzer** tab.

3   In the **Available connectors** list, select the connector.

4   In the **Input Analyzer settings** list, select the input type and click the **Select a Filter Chain** icon. The Browse for Resources dialog box opens.

5   From the **Look in** drop-down list, select the resource set that contains the filter chain you want to add. All filter chains in the selected resource set are displayed in the list of items. If the filter chains is located in a folder, double-click the folder to display the filter chains.

6   Double-click the filter chain you want to add and click **OK**.

Filter reference

Bypass filter

Bypasses the StreamServer, and sends the input data directly to a designated output connector. See *Bypass filter settings* on page 156.

Note: Even if you use the bypass filter to bypass all the input data, you must connect the input connector to a dummy Event. If you do not connect the input connector to an Event, the filter chain will not be activated.

Code page filter

This filter is used to apply a code page for the input data. See *About code pages and Unicode support* for more information.

CollectorArchive filter

This filter archives output data in the storage for Collector. Any metadata intended for archiving is archived together with the data.

Note: If you use the CollectorArchive Filter, you must create and configure the storage for Collector in Control Center. You must also configure an Archiver application, which will transfer the documents to the storage. For more information, see *Control Center* documentation > *StreamStudio Collector configurations*. The storage is referred to as the StreamServe archive in the *Control Center* documentation.

Archiving via the CollectorArchive filter is an alternative to archiving via the output connector. When using the filter, you must assign a document type to the data to be archived. You assign the document type in the Runtime Output Connector dialog box, on the Archiving tab.

To avoid double archiving, make sure that **No** is selected in the Collector Archive area. The options **Device independent copy** and **Compress documents in archive** are not available for the CollectorArchive filter.

Compression filter

This filter compresses the output data.

Decompression filter

This filter decompresses the input data.

External filter

This filter reads data from standard input, sends it to the specified filter, and delivers the filtered data back on standard output. The specified filter can be any executable.

File filter

This filter converts characters in the input data using a conversion table. See *File filter settings* on page 158.

GenericArchive filter

This filter archives output data in an external archive. Any metadata is archived in an index file together with the data. See *GenericArchive filter settings* on page 159.

Archiving via the GenericArchive filter is an alternative to archiving via the Generic Archive output connector. When using the GenericArchive filter, you can use any type of output connector for the final delivery of the output data.

You must assign a document type to the data to be archived. You assign the document type in the Runtime Output Connector dialog box, on the Archiving tab.

Internal filter

This filter handles escape codes (HpPcl, Esc0, and URL) in the input data. See *Internal filter settings* on page 160.

Job filter

This filter enables the StreamServer to divide large input jobs into several small jobs. Sequences in the input data determine the size of each job. See *Job filter settings* on page 161.

AFPIN filter

This filter enables the StreamServer to identify and extract AFPDS (Advanced Function Presentation Data Stream) formatted input. See *The AFPIN filter* for more information.

PDFIN filter

This filter enables the StreamServer to identify and extract PDF formatted input. See *The PDFIN filter* for more information.

LiveCycle filter

This output filter is used to integrate Adobe LiveCycle ES processes into the StreamServer pipeline when processing documents. See *LiveCycle filter* on page 162.

Bypass filter settings

This filter bypasses the StreamServer, and sends the input data directly to a designated output connector. The filter settings are described in the table below.

Start in bypass	If selected, all input received between StreamServer start-up and the first **Bypass off** trigger is sent to the **Bypass connector**.
Bypass connector	The name of the output connector to send the input data to.

Initial time-out	N/A
Bypass time-out	Time-out (seconds). Overrides the ordinary connector time-out
Bypass on	Sequence in input data that activates the bypass filter. For example: `#bypassON`
Remove (bypass on)	Select whether to remove the **Bypass on** sequence from output data.
Bypass off	Sequence in input data that deactivates bypass mode. For example: `#bypassOFF`
Remove (bypass off)	Select whether to remove the **Bypass off** sequence from output data.
Append output to job	Allows the output sent to the bypass connector to be treated as a unit. For example, if the bypass connector is a File connector, the output will end up in the same file.
Overlay resource	Optional overlay to include in the output.
Overlay select	Sequence in input data that indicates "here comes an overlay". For example: `#ovl`
Remove (overlay select)	Select whether to remove the **Overlay select** sequence from output data.
Overlay trigger	Sequence in input data that indicates the end of the overlay file name. For example: `##`
Remove (overlay trigger)	Select whether to remove the **Overlay trigger** sequence from output data.

Examples

Example 4 *Bypass sequences*

Settings:
Bypass on = #ON and Bypass off = #OFF

Input data:
`xyz;#ONabc;def;ghi#OFF;jkl`

Bypassed data:
`abc;def;ghi`

Example 5   *Overlay sequences*

Settings:
Overlay select = #OVL and Overlay trigger = ##

Input data:
abc;def;#OVLlogo.prn##ghi;jkl

Result:
The file logo.prn is sent between "#OVL" and "##".

File filter settings

This filter coverts characters in the input data using a conversion table. The settings are described in the table below.

File	The conversion table that describes how to convert the characters. The conversion table must be available in the same resource set as the filter chain. Use the following syntax in the conversion table:
	input_string_1
	output_string_1
	input_string_2
	output_string_2
	...
	input_string_N
	output_string_N
	The strings are case sensitive, and you must comment empty rows with // or *.
	You can use hexadecimal notation within angle brackets (*<hex>*). Some characters (tab, line feed, angle brackets, quotation marks, etc.) must have hexadecimal notation. You can separate multiple hex values with comma. For example:
	`<0D,0A>`

Examples

Example 6   *Conversion table*

```
// Substitute ALPHA with BETA
ALPHA
BETA
// Substitute line feed with carriage return and line feed
<0A>
```

```
<0D,0A>
// Substitute " with ()
<22>
<28,29>
// Substitute \ with /
<5C>
<2F>
```

GenericArchive filter settings

This filter archives output data in an external archive. Any metadata is archived in an index file together with the data.

What settings to specify depends on the requirements from the archiving system. For example, if a third-party archiving client scans the directory for index files with a certain extension, you must specify this extension. As the extension is added at job end, you prevent the archiving client from accessing an index file before it is completed.

The settings are described in the table below.

Setting	Description
Output directory	The root directory for the output. The output is temporarily stored in the root directory before it is sent to the archiving system. You can use variables.
Output document name prefix	A prefix that is added to the output data at job end. You can use variables.
Output document name extension	An extension that is added to the output data at job end. You can use variables.
Output document name	The name for the output data. You can use variables. If no name is specified, a name is automatically generated. **Output document name** overrides the **Output document name prefix** and **Output document name extension** settings.
Index file name prefix	A prefix that is added to the index file at job end. You can use variables.
Index file name extension	An extension that is added to the index file at job end. You can use variables.

Setting	Description
Index file name	The name for the index file. You can use variables. If no name is specified, an index file name is automatically generated. **Index file name** overrides the **Index file name prefix** and **Index file name extension** settings.
External archive command	A command to execute when all files are added to the **Output directory**. You can use variables. Use %doc for document name and %idx for index name. If the command includes a path with spaces, the path must be specified within apostrophes. **Note:** Do not us any command that moves or removes the files. Use the **Remove files after external archive command** instead.
Remove files after external command execution	Removes the files (in the **Output directory**) after successful completion of the **External archive command**. At a successful completion, the External archive command returns the value 0.

Internal filter settings

This filter handles escape codes (HpPcl, Esc0, and URL) in the input data. The settings are described in the table below.

Internal > HpPcl	Removes HpPcl escape codes from the input data.
	StreamServer detects an escape code as an ESC character (0x1b) followed by any number of characters. The "end of escape code" character is an upper case letter (character in the range [0x41..0x5a]).
	When StreamServer detects an ESC character, it removes all characters until it finds an upper case letter (including the upper case letter).
	Note: If no "end of escape code" is found, input is truncated at the ESC character.

Internal > Esc0	Removes Esc0 escape codes from the input data.
	StreamServer detects an escape code as an ESC character (0x1b) followed by any number of characters. The "end of escape code" character is a NULL character (0x00).
	When StreamServer detects an ESC character, it removes all characters until it finds a NULL character (including the NULL character).
	Note: If no "end of escape code" is found, input is truncated at the ESC character.
Internal > URL	• Converts URL escape codes (%20 to space etc.).
	• Converts '&' (ampersand) to <0D, 0A> (carriage return - line feed).
	• Converts '+' (plus sign) to ' ' (space).

Job filter settings

This filter enables the StreamServer to divide large input jobs into several small jobs. Sequences in the input data determine the size of each job. The settings are described in the table below.

Job begin	Sequence specifying the beginning of a job. For example: [JOB BEGIN]
Job end	Sequence specifying the end of a job. For example: [JOB END]

Examples

Example 7   *Job filter*

This example displays two scenarios where one large input job is divided into smaller jobs.
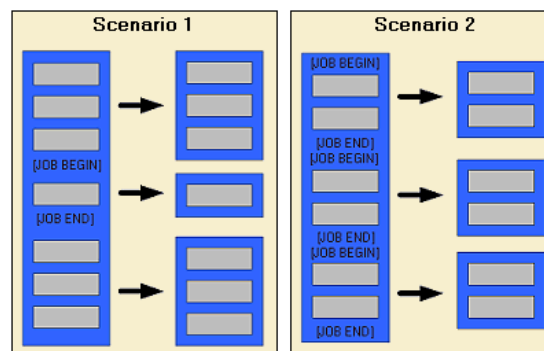
LiveCycle filter

StreamServer can use a LiveCycle output filter to invoke LiveCycle processes that are deployed within Adobe LiveCycle ES and exposed through web services. These web services can be used to integrate LiveCycle processes into the StreamServer pipeline when processing documents.

The filter settings are described in the table below.

Setting	Description
Host name	The host name or IP address of the server hosting LiveCycle ES. For example: `localhost`
Port	The port used by the LiveCycle ES server. For example: `8080`
Web service name	The name (case sensitive) of the service to invoke. This name must be the same as the corresponding process created in LiveCycle Workbench ES.
User name	User name to connect to the server hosting LiveCycle ES. Used in case of basic HTTP authentication.
Password	Password to connect to the server hosting LiveCycle ES. Used in case of basic HTTP authentication.
Enable asynchronous communication	**Yes** Make asynchronous calls to the service. This option is used when invoking long-lived LiveCycle services. **No** Make synchronous calls to the service. This option is used when invoking short-lived LiveCycle services.
Asynchronous poll interval	Only used together with asynchronous calls. This is the interval (milliseconds) used to check for a response to the invocation request.
Root certificate for SSL communication	The root certificate used when HTTPS is used as web service protocol (secure communication). The certificate must be available from a resource set connected to the Platform.

Setting	Description
Custom options	A list of custom keys (key-value pairs) to include in the invocation request.
	To be able to handle custom keys, the service must have a variable named `optionsMap` of the type `map`. All custom keys defined here will be added to the `optionsMap` variable in the invoked service.
	The values provided can be extracted in the receiving LiveCycle process by using an XPath expression in the LiveCycle process.
	Examples of custom keys are passwords for creating password encrypted PDF files. For example:
	Key: `pdfpassword`
	Value: `encrypted`

Sorting documents

In this chapter

Sorting documents – overview

An input job contains several documents (invoices, delivery notes, etc.). If no sorting is applied, the documents are processed in the order they are received. In some situations you need to sort the documents. For example, to be able to use a Document trigger, you may have to sort the input documents before they are processed.

Sort keys

You use sort keys to specify how to sort documents. See *Sort keys* on page 168.

Sorting before or after Process

You can sort documents either before or after they are handled by the Processes.

When to sort before Process

You should always try to sort documents before Process, due to performance reasons. See *Sorting before Process* on page 169.

When to sort after Process

You must sort after Process if the sort key variables are defined in a Process. See *Sorting after Process* on page 172.

Sorting Documents

You can sort the output after it is grouped as Documents (using a Document trigger). This also applies to documents retrieved from a Post-processor repository. See *Sorting Documents* on page 173.

Scenario – No sorting

The figure below illustrates a simple scenario where the input job contains four documents:

*   One hardware invoice (hw) and one software invoice (sw) to customer 01.

*   One hardware invoice and one software invoice to customer 02

.
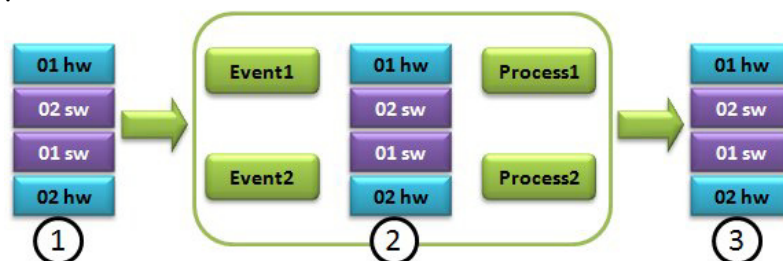
Figure 63   Processing a job – no sorting applied.

1	The StreamServer application receives the input job.
2	No sorting is done, and the Processes handle documents in the same order as they are received.
3	The documents are delivered in the same order as they are received.

Output mode Document

In this scenario, it is not possible to group hardware and software invoices by customer, since the Document trigger changes after each processed document. This would result in four Documents (one invoice per Document) instead of two Documents (one hardware and software invoice per Document).

Figure 64   Using $customerNumber as Document trigger – no sorting applied.

To be able to create Documents by customer, the invoices must first be sorted by customer.

Sort keys

You use sort keys to specify how to sort documents. A sort key is a variable defined in the Message configuration, or a metadata key if you are sorting documents retrieved from a Post-processor repository. For example, if you assign a variable called $customerNumber to the Event field customerNumber, you can use $customerNumber as sort key.
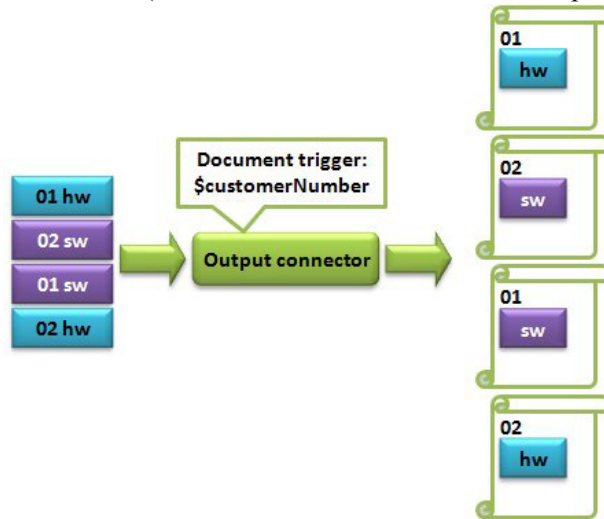
Multiple sort keys

You can use multiple sort keys. For example, if you use $customerNumber as the first sort key, and $documentType as the second sort key, the documents are first sorted by $customerNumber, and then by $documentType.

Numeric or string variables

When you specify a sort key, you must select the appropriate type. If the sort key is a string variable you must select **Type** > **String**, and if the sort key is a numeric variable, you must select **Type** > **Numeric**.

Sorting ascending or descending

The default sort order is descending. But if you need to, you can change the sort order to ascending.

Changing the order of the sort keys

The sort keys are applied in the order they are displayed in the Edit Sort Definition dialog box. You can select any sort key, and use the Move arrows to move the sort key to the appropriate position.
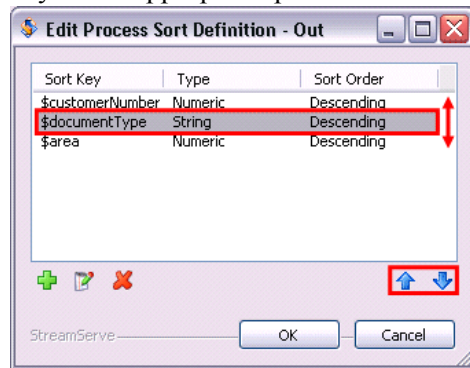

Figure 65   Moving sort key $documentType.

Sorting before Process

You should always try to sort documents before Process. To sort documents before Process, you must add one or more sort keys to the Runtime job.

To add a sort key

1   Activate the generic layer.

2   Right-click the Runtime job and select **Edit Sort Definition**. The Edit Event Sort Definition dialog box opens.

3   Click **Add New**. The Add Sort Key dialog box opens.

4   Add the sort key and click **OK**.

Scenario – Sorting before Process using one sort key

The figure below illustrates a simple scenario, where $customerNumber is used as sort key.
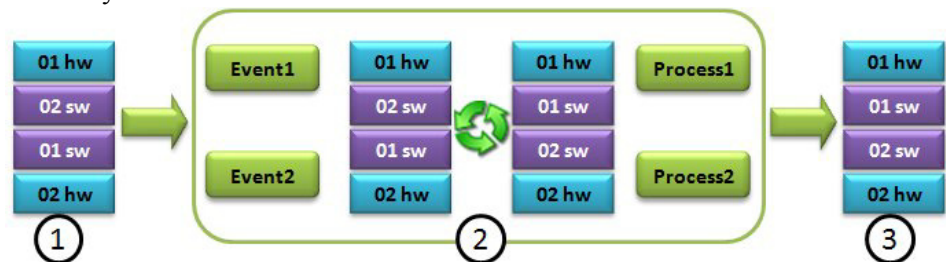
Figure 66   Sort before Process using $customerNumber as sort key.

1	The StreamServer application receives the input job.
2	The documents are sorted using $customerNumber as sort key:
3	All customer 01 documents are delivered before the customer 02 documents.

In this scenario, the documents are not delivered in the same order.

Customer	Document order
01	**1** Software invoice **2** Hardware invoice
02	**1** Hardware invoice **2** Software invoice

Output mode Document

In this scenario, you can use $customerNumber as Document trigger to group hardware and software invoices per customer. The documents are not in the same order in all Documents. This is corrected in *Scenario – Sorting before Process using multiple sort keys* on page 170.
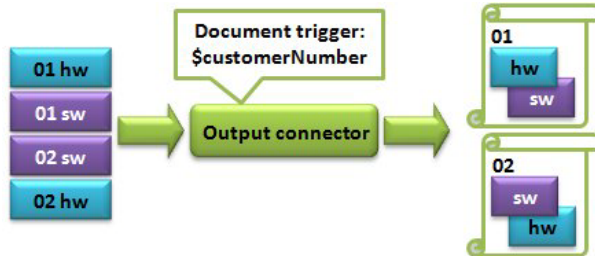
Figure 67 Creating Documents using $customerNumber as sort key and Document trigger.

Scenario – Sorting before Process using multiple sort keys

The figure below illustrates a simple scenario, where two sort keys are used:

- $customerNumber

- $documentType
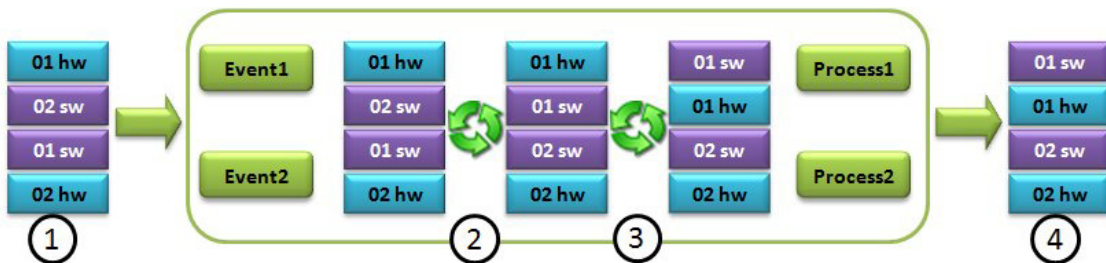
Figure 68 Sort before Process using $customerNumber and $documentType as sort keys.

1	The StreamServer application receives the input job.
2	The documents are sorted using $customerNumber the first sort key.
3	The documents are sorted using $documentType as the second sort key.
4	All customer 01 documents are delivered before the customer 02 documents.

In this scenario, the hardware invoices are delivered before the software invoices.

Customer	Document order
01	**1** Hardware invoice
	2 Software invoice
02	**1** Hardware invoice
	2 Software invoice

Output mode Document

In this scenario, you can use $customerNumber as Document trigger to group hardware and software invoices per customer.
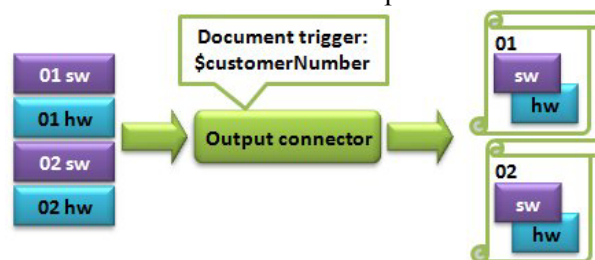
Figure 69   Creating Documents using $customerNumber and $documentType as sort keys, and $customerNumber as Document trigger.

Sorting after Process

You must sort after Process if the sort key variables are defined in the Process. To sort documents after Process, you must add one or more sort keys to the output connector in the generic Runtime configuration layer.

To add a sort key

1   Activate the generic layer.

2   Double-click the connector. The Edit Output Connector Settings dialog box opens.

3   Double-click the Runtime job that contains the Document. The Runtime Output Connector Settings dialog box opens.

4   Click the **Document End** icon.

5   On the Process Sort Definition tab, click **Edit Process Sort Definition**. The Edit Process Sort Definition dialog box opens.

6   Click **Add New**. The Add Sort Key dialog box opens.

7   Add the sort key and click **OK**.

Scenario – Sorting after Process using one sort key

The figure below illustrates a simple scenario where documents are sorted before Process using $customerNumber as sort key, and after Process using $documentType as sort key. In this scenario, $documentType is defined in the Processes (Process1 and Process2).

Figure 70   Sort before Process using $customerNumber as sort key, and after Process using $documentType as sort key.
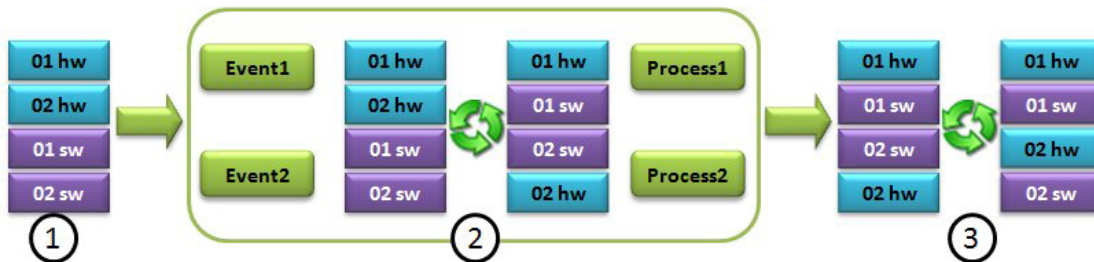
1	The StreamServer application receives the input job.
2	Sorting is done before Process using $customerNumber as sort key:
3	Sorting is done after Process using $documentType as sort key.

Sorting Documents

You can sort the output after it is grouped as Documents (using a Document trigger). This also applies to documents retrieved from a Post-processor repository, and can be used to sort documents within envelopes if enveloping is enabled.

To sort Documents, you must add one or more sort keys to the output connector in the generic Runtime configuration layer.

To add a sort key

1 Activate the generic layer.

2 Double-click the connector. The Edit Output Connector Settings dialog box opens.

3 Double-click the Runtime job or Post-processor job that contains the documents. The Runtime Output Connector Settings dialog box opens.

4 Click the **Job End** icon.

5 On the Document Sort tab, click **Add New**. The Add Sort Key dialog box opens.

6 Add the sort key and click **OK**.

Version Control in Design Center

In this chapter

- *Version Control overview*
- *Creating VCS connections*
- *Connecting to the VCS*
- *Adding new files to the VCS*
- *Checking in files*
- *Checking out files*
- *Creating a release*

Version Control overview

You can connect Design Center to a Version Control System (VCS). This enables you to check in/out Design Center files directly from the Design Center GUI. Currently Design Center only supports connection to CVS. If you are using another VCS (StarTeam, ClearCase, etc.), you must use external tools to check in/out the Design Center files.

To be able to use version control for Design Center files, you must know how to set up your VCS environment. This is not described in this section, this section only describes the following tasks:

- *Creating VCS connections*
- *Connecting to the VCS*
- *Adding new files to the VCS*
- *Checking in files*
- *Checking out files*

VCS status indicators

Each Project node has a number of indicators. The indicators show the status of the Design Center file in the VCS compared to the status of the file in your Project directory. A tick attached to a node indicates that the file is under version control, i.e. the file is added to the VCS. If there is no tick, you must add the file to the VCS in order to have it under version control.
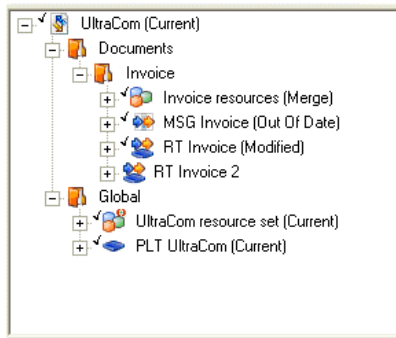
Figure 71   VCS status indicators

The VCS status of a file can be as follows:

- **Current** – The status of the file in the VCS is the same as the status of the file in your Project directory. This means the file has not been modified since the last time it was checked in.

- **Modified** – You have modified and saved the file in your Project directory, but you have not checked in the new version. This means you must check in the file.

- **Out Of Date** – Another user has modified and checked in the file. This means you must check out the file in order to get the latest version.

- **Merge** – Both you and another user have modified the file, and the other user has checked in the file before you. This means you have two options:

    – Use Force check-in to check in your version of the modified file.

    – Use Force check-out to check out the other user's version of the modified file. In this case, your modifications to the file are overwritten.

- **Missing** – The file is saved in the VCS, but there is no copy of the file in your Project directory. You can check out the file in order to get the latest version.

- **Not in view** – The file exists in your Project directory but is not in the VCS. You must add the file to the VCS if you want to have it under version control.

- **Unknown** – The status of the file is unknown. In this case, you should contact your VCS administrator. If you know which version of the file you want, you can:

    – Use Force check-in to check in your version of the modified file. This overwrites the version of the file in the VCS.

    – Use Force check-out to check out the version of the file from the VCS. In this case, your modifications to the file are overwritten.

Creating VCS connections

You can create several VCS connections in Design Center. For example, you can create one VCS connection for each Project. If you have large Projects, you can divide the Project into logical units, and create one VCS connection per logical unit.

For each VCS connection, you must specify the local path to the Design Center files you are working with. For example, the path to the Project directory, or the path to a logical unit of the Project directory. You must also specify into which CVS repository module to check in the Design Center files.

To create a VCS connection

1   Select **File** > **Version Control** > **Manage Connections**. The Manage Connections dialog box opens.

2   Click **Add**. The Select connection type dialog box opens.

3   Select the type of VCS system you want to create the connection to and click **OK**. The Connection name dialog box opens.

4   Enter a name for the connection and click **OK**. The *Add connection dialog box* opens.

5   Specify the settings for the connection and click **OK**.

Connecting to the VCS

Design Center can have several VCS connections, for example one VCS connection per Project (see *Creating VCS connections* on page 178). When you open your Project, you must specify which VCS connection to use.

To connect to the VCS

Select **File** > **Version Control** > **Connect to** and the appropriate VCS connection.

To disconnect from the VCS

Select **File** > **Version Control** > **Disconnect**.

Adding new files to the VCS

New Design Center Project nodes are not automatically added to the VCS. You must first save the corresponding files locally, and then manually add the files to the VCS. You can add files in two ways:

- Add a selected Project node to the VCS. Using this option, you can add the selected Project node and related Project nodes that are not already added. See *Adding the selected Project node to the VCS* on page 180.

- Add multiple Project nodes to the VCS. Using this option, you can add all new Project nodes to the VCS. See *Adding multiple Project nodes to the VCS* on page 180.

When you have added the Project nodes to the VCS, the corresponding files are under version control. You can then check in/out the files to/from the VCS. See *Checking in files* on page 181 and *Checking out files* on page 182.

Adding the selected Project node to the VCS

1 Right-click the Project node and select **Version Control** > **Add Selected**. The *Add to version control dialog box* opens.

2 Select the components to add and click **OK**.

Reference

Add to version control dialog box on page 296

Adding multiple Project nodes to the VCS

1 Select **File** > **Version Control** > **Add Multiple**. The *Add to version control dialog box* opens.

2 Select the components to add and click **OK**.

Reference

Add to version control dialog box on page 296

Checking in files

After you have modified your Design Center files, you can check in the modified files to the VCS. You can check in files in two ways:

- Check in a selected Project node to the VCS. Using this option, you can check in the selected Project node and related Project nodes. See *Checking in the selected Project node to the VCS* on page 181.

- Check in multiple Project nodes to the VCS. Using this option, you can check in multiple Project nodes. See *Checking in multiple Project nodes to the VCS* on page 181.

Checking in the selected Project node to the VCS

1 Right-click the Project node and select **Version Control** > **Check In Selected**. The *Check in dialog box* opens.

2 Select the components to check in and click **OK**.

Reference

Check in dialog box on page 297

Checking in multiple Project nodes to the VCS

1 Select **File** > **Version Control** > **Check In Multiple**. The *Check in dialog box* opens.

2 Select the components to check in and click **OK**.

Reference

Check in dialog box on page 297

Checking out files

You can check out files in two ways:

- Check out a selected Project node. See *Checking out a selected Project node* on page 182.

- Check out multiple Project nodes. Using this option, you can select all files below a selected folder, or specific files below a selected folder. See:

    – *Checking out multiple Project nodes from a folder* on page 182

    – *Checking out multiple Project nodes from a folder and sub folders* on page 183

    – *Checking out all Project nodes from a selected folder* on page 183

    – *Checking out all the files from a selected folder and sub folders* on page 183

If you check out the Project root node (`*.dcproject`), all other Project nodes in the Project are checked out as well.

Checking out a selected Project node

1 Right-click the Project node and select **Version Control** > **Check Out Selected**. The *Check out dialog box* opens.

2 Specify the settings and click **OK**.

Reference

Check out dialog box on page 298

Checking out multiple Project nodes from a folder

1 Select **File** > **Version Control** > **Check Out Multiple**. The *Check out multiple files or folders dialog box* opens.

2 Select the folder that contains the Project nodes you want to check out.

3 Select the Project nodes you want to check out (use SHIFT SELECT or CONTROL SELECT to select multiple nodes).

4 Specify the **Check-out method** and click **OK**.

Reference

Check out multiple files or folders dialog box on page 299

Checking out multiple Project nodes from a folder and sub folders

1 Select **File** > **Version Control** > **Check Out Multiple**. The *Check out multiple files or folders dialog box* opens.

2 Select the folder that contains the Project nodes you want to check out.

3 Select **Show all descendants**.

4 Select the Project nodes you want to check out (use SHIFT SELECT or CONTROL SELECT to select multiple nodes).

5 Specify the **Check-out method** and click **OK**.

Reference

Check out multiple files or folders dialog box on page 299

Checking out all Project nodes from a selected folder

1 Select **File** > **Version Control** > **Check Out Multiple**. The *Check out multiple files or folders dialog box* opens.

2 Select the folder that contains the Project nodes you want to check out.

3 Specify the **Check-out method** and click **OK**.

Reference

Check out multiple files or folders dialog box on page 299

Checking out all the files from a selected folder and sub folders

1 Select **File** > **Version Control** > **Check Out Multiple**. The *Check out multiple files or folders dialog box* opens.

2 Select the folder that contains the Project nodes you want to check out.

3 Specify the **Check-out method**.

4 Select **Recursive check-out** and click **OK**.

Reference

Check out multiple files or folders dialog box on page 299

Creating a release

When you create a release, the Project is exported, all Project files are checked in, and the export file is added to CVS in the same folder as the Project.

The export generates a file (`*.export`) that contains all the Platform layers in the Project. When you deploy the Project in Control Center, you must connect to the VCS, and specify which physical layer to deploy.

To create a release

1   Select **File** > **Version Control** > **Create Release**. The Create Release dialog box opens.

2   Enter the appropriate comment and label and click **OK**.

Menus, menu commands, and dialog boxes in Design Center

In this chapter

Main window reference

In this section

File menu commands

The File menu includes the commands described in the table below.

Command	Description
New > Project	Create a new Project. A Project node (root node) is added to the Project browser.
New > Platform	Create a new Platform. A new Platform node and physical layer node is added to the Project browser. The Platform node is added below the Project node, or in a folder if a folder is selected in the Project browser. The physical layer node is added as a sub node to the Platform node.
New > Message	Create a new Message configuration. A new Message node is added to the Project browser. The Message node is added below the Project node, or in a folder if a folder is selected in the Project browser.
New > Runtime	Create a new Runtime configuration. A new Runtime configuration node and one or more physical layer nodes are added to the Project browser. The Runtime configuration node is added below the Project node, or in a folder if a folder is selected in the Project browser. The physical layer nodes are added as sub nodes to the Runtime configuration node.
New > Resource Set	Create a new resource set. A new resource set node is added to the Project browser. The resource set node is added below the Project node, or in a folder if a folder is selected in the Project browser.
New > Create Project from Template	Create a new Project using a template. This command opens the *Create Project from Template dialog box* where you select which template to use.

Command	Description
Open	Open and activate a Design Center file (Platform, Message configuration, Runtime configuration, or resource set) in the Main window. Used to open a file that is not included in the Project. This command launches a file browser where you browse to and select the file.
Close	Close the active view.
Save	Save the changes made in the active view.
Save All	Save the Project. This command also saves changes made in open views that are not part of the Project.
Save As	Save the changes made in the active view, and specify a new filename/path for the corresponding Design Center file.
Open Project	Open an existing Project. This command launches a file browser where you browse to and select the Project file.
Save Project	Save the Project. This command does not save changes made in open views that are not part of the Project.
Close Project	Close the Project. If there are modified and unsaved Project components, a dialog box opens where you can specify what to save.
Version Control	See *Version Control menu commands and dialog boxes* on page 292.
Obtain Write Lock	Lock the selected component. If you lock a component, only you can edit the component. Applicable only if Design Center is connected to a Version Control System (CVS in this release).
Release Write Lock	Unlock the selected component. If you unlock a component, you can view the settings in the corresponding view, but you cannot edit the component. Applicable only if Design Center is connected to a Version Control System (CVS in this release).
Reload Component	Revert to the latest saved version of the selected component.

Command	Description
Add to Project	Link an existing Project component (Platform, Message configuration, Runtime configuration, or resource set) to the Project. This command launches a file browser where you browse to and select the Project file you want to link to the Project. The Project component node is added below the Project node, or in a folder if a folder is selected in the Project browser.
Remove from Project	Remove the selected node and all its children from the Project. The corresponding Design Center files are not deleted.
Pack Project	Pack the Project. This command opens the *Project Package information dialog box* where you also can select to save the Project as a template.
Unpack Project	Unpack a Project package. This command opens the *Unpack Project dialog box* where you specify how to unpack the Design Center files.
Exit	Exit Design Center. If there are modified and unsaved components, a dialog box opens where you can specify what to save.

Edit menu commands

The Edit menu includes the commands described in the table below.

Command	Description
Cut	Applicable to the Note pad in the Property window. Cuts the selected text segment, and adds it to the clipboard.
Copy	Copy the selected item (connector, text segment, Event, etc.).
Paste	Paste the copied item to the active area.
Delete	Delete the selected item.
Copy Connector Settings	Copy the connector settings in the selected output connector. All generic settings (except for notes) will be copied.
Paste Connector Settings	Paste the connector settings (see **Copy Connector Settings** above) to the selected output connector.
Rename	Rename the selected item.

Command	Description
Enabled	Applicable to the following items in the Runtime configuration view: • Message configurations • Processes • Output connectors Used to enable/disable the selected item.
Find	Open the Find dialog box, where you specify components to search for. The search result is displayed in the *Search results window*.
Script	Edit scripts for the selected item. This command opens the script editor where you can add, edit, and remove scripts. Applicable to the following items in the Message and Runtime configuration views: • Event • Message • Process • Runtime job
Go To Source	Activate the source of the connector, Event, Process, or Process Link selected in the Runtime configuration view: • Opens the Platform view with the selected connector highlighted. • Opens the Message view with the selected Event or Process highlighted.
Add Resource Set	Connect resource sets to the active view. Opens the Select Resource Sets dialog box, where you select resource sets to connect.
Remove Resource set	Disconnect resource sets from the active view. Opens the Remove Resource Sets dialog box, where you select which resource sets to disconnect.
Project Export Settings	Open the *Project Export Settings dialog box*, where you can configure input analyzer and notifications settings.
Settings	Open the Settings dialog box for the component selected in the active view. For example, if you select an input connector in the Platform view, and select this command, the Input Connector Settings dialog box opens.

Command	Description
Custom Settings	Open the *Edit Custom Fields dialog box*, where you can add custom commands and keywords to Platform and Runtime configuration component.
File Properties	Open the Properties dialog box. The Properties dialog box shows the path to the Design Center file of the selected Project browser node. It also displays VCS information about the same file.

View menu commands

The View menu includes the commands described in the table below.

Command	Description
Project Browser	Open/hide the *Project browser*.
Property Window	Open/hide the *Property window*.
Search Results	Open/hide the *Search results window*.
Font Dependencies	Open the *Font Dependencies dialog box*. This dialog box shows all fonts used in the PageOUT and StoryTeller Processes.
Status Bar	Show/hide the status bar.
Window Tabs	Show/hide the window tabs below the *Main window*.
Refresh view	Refresh the active view.
Refresh all views	Refresh all views.

Tools menu commands

The Tools menu includes the commands described in the table below.

Command	Description
Customize	Open the *Customize dialog box*, where you can view and customize the Design Center toolbars.
Design Center Settings	Open the *Design Center Settings dialog box*, where you can specify default Design Center tool settings.
Select Note Font	Specify which font to use for the notes.
Select Note Alignment	Specify text alignment of the notes (Left, Center, or Right).

Command	Description
Select Adobe LiveCycle Repository connection	Opens the *Select active Adobe LiveCycle Repository Connection dialog box*, where you can manage connections to the LiveCycle ES2 Repository.
Export	Export the Project to disk. This command opens the *Export dialog box* where you specify the export settings. If Design Center is connected to a VCS, you must use the **Version Control** > **Create Release** command instead.
Autocreate Message	Autocreate a Message configuration based on an SXD file (Event) and a PLT file (Process). This command opens the Autocreate Message dialog box, where you specify the SXD file and PLT file.
Edit Project Template Information	Edit the category and description of a template. This command opens the *Project Package information dialog box*, where you edit the category and description.
Update Composition Center template versions	Opens the *Set Composition Center template version dialog box*, where you can update Composition Center template version numbers.

Customize dialog box

In the Customize dialog box, you can customize the Design Center toolbars.
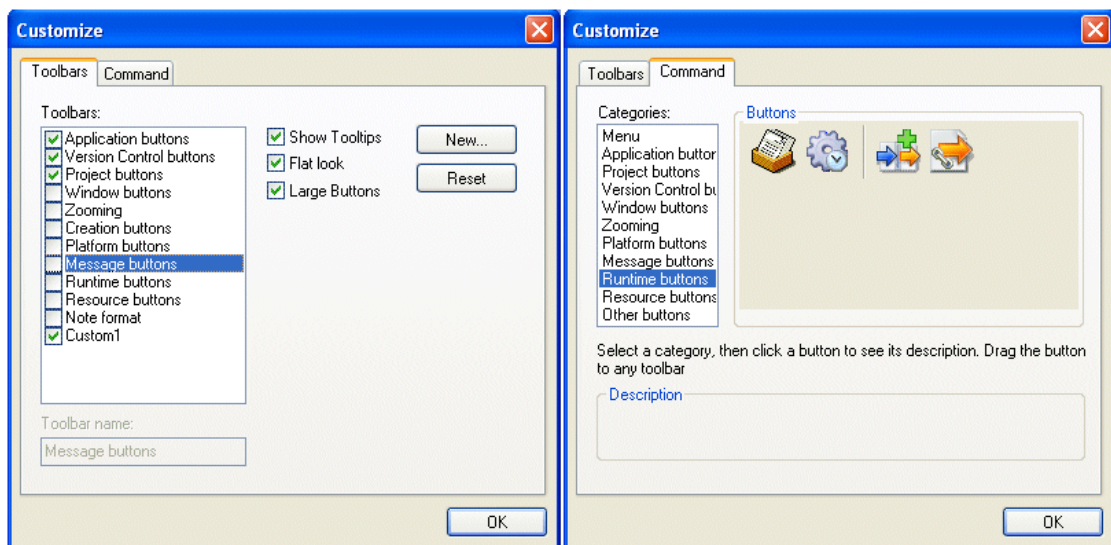
Figure 72   The Customize dialog box.

Toolbars tab

On this tab you enable/disable toolbars and tooltips, and modify the appearance of the toolbars. The settings are described in the table below.

Setting	Description
Toolbars	Displays all available toolbars. Use the check boxes to specify which toolbars to display in Design Center.
Show Tooltips	Select to enable tooltips for the toolbar buttons.
Flat look	Select to flatten the toolbars.
Large buttons	Select to display large size toolbar buttons.
New	Add a new custom toolbar.
Reset	Reset selected (native) toolbar to include its default toolbar buttons. Can be used if you have added new buttons to the toolbar.
Delete	Delete selected (custom) toolbar.

Command tab

On this tab you can see descriptions of all Design Center toolbar buttons. You can also drag buttons and menus to any toolbar displayed in Design Center. The settings are described in the table below.

Setting	Description
Categories	Displays all available toolbar and menu categories.
Buttons	Displays the buttons in the selected category. You can drag buttons from this panel to any native or custom toolbar.
Description	Shows the description of the selected button.

Design Center Settings dialog box

In the Design Center Settings dialog box you can specify the default Design Center application settings.
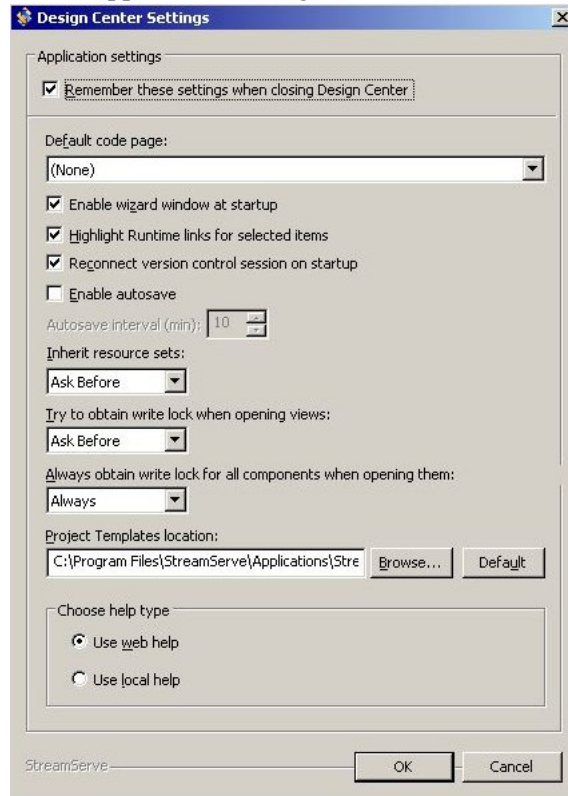
Figure 73   The Design Center Settings dialog box.

The settings are described in the table below.

Setting	Description
Remember these settings when closing Design Center	Select to open the Design Center views and windows as they were the last time Design Center was closed.
Default code page	The default code page specified here is the default code page in all code page drop-down lists in Design Center.
Enable wizard window at startup	Select to display the wizard window when you launch Design Center. The wizard window contains the options Recent Projects, Open Project, Create new Project, etc.
Highlight Runtime links for selected items	Select to highlight all links to components selected in a Runtime configuration view.
Reconnect version control session on startup	Select to reconnect to the Version Control System when you launch Design Center. If a VCS connection was active the last time you exited Design Center, the same VCS connection is activated when you launch Design Center.

Setting	Description
Track active item in project tree	Select to highlight the active node in the Project browser. For example, if a Message view is active in the Main window, the corresponding Message node in the Project browser is highlighted.
Enable autosave	Select to enable autosave of the Design Center Project files.
Autosave interval	Specify how frequently to autosave the Design Center Project files.
Inherit resource sets	Specify whether to inherit resource sets. For example, you have the resource set "B" connected to the Message configuration "Invoice". When you add the Message configuration "Invoice" to a Runtime configuration, you must decide whether the Runtime configuration should inherit the resource set "B". • **Ask Before** – You are prompted each time. • **Always** – Resource sets are inherited automatically. • **Never** – Resource sets are not inherited.
Try to obtain write lock when opening views	Specify whether Design Center should try to lock a Project file when opening the corresponding view. • **Ask Before** – You are prompted each time. • **Always** – Design Center tries to lock the file automatically. Recommended if Design Center is not connected to a Version Control System (CVS in this release). • **Never** – Design Center does not try to lock the file. Recommended if Design Center is connected to a Version Control System.
Always obtain write lock for all components when opening them	Specify whether Design Center should lock all components in a view when opening the view. • **Ask Before** – You are prompted each time. • **Always** – Design Center locks the components automatically. Recommended if Design Center is not connected to a Version Control System (CVS in this release). • **Never** – Design Center does not lock the components. Recommended if Design Center is connected to a Version Control System.
Project Templates location	The path to the Design Center Project templates.

Setting	Description
Choose help type	Select whether to **Use web help** or **Use local help**. The default option is to use web help, but if you are unable to connect to the web, you can select to use local help instead.
	To use local help, you must download the help package from StreamShare (`http://streamshare.streamserve.com`) and unzip it to:
	`<StreamServe>\Applications\StreamSever\<version>\Common\OnlineHelp`

Project menu commands and dialog boxes

In this section

Project browser shortcut menu commands

The Project browser shortcut menu (right-click the Project browser) includes the commands described in the table below.

Command	Description
New > Folder	Create a new folder. The new folder is added to the Project browser below the Project node, or in a folder if a folder is selected in the Project browser.
New > Platform	Create a new Platform. A new Platform node and physical layer node is added to the Project browser. The Platform node is added below the Project node, or in a folder if a folder is selected in the Project browser. The physical layer node is added as a sub node to the Platform node.
New > Message	Create a new Message configuration. A new Message node is added to the Project browser. The Message node is added below the Project node, or in a folder if a folder is selected in the Project browser.
New > Runtime	Create a new Runtime configuration. A new Runtime configuration node and one or more physical layer nodes are added to the Project browser. The Runtime configuration node is added below the Project node, or in a folder if a folder is selected in the Project browser. The physical layer nodes are added as sub nodes to the Runtime configuration node.

Command	Description
New > Resource Set	Create a new resource set. A new resource set node is added to the Project browser. The resource set node is added below the Project node, or in a folder if a folder is selected in the Project browser.
Open Project	Open an existing Project. This command launches a file browser where you browse to and select the Project file.
Save Project	Save the Project. This command does not save changes made in open views that are not part of the Project.
Save As	Save the Project, and specify a new filename/path for the corresponding Project file.
Close Project	Close the Project. If there are modified and unsaved Project components, a dialog box opens where you can specify what to save.
Version Control	See *Version Control menu commands and dialog boxes* on page 292.
Pack Project	Pack the Project. This command opens the *Project Package information dialog box* where you also can select to save the Project as a template.
Unpack Project	Unpack a Project package. This command opens the *Unpack Project dialog box* where you specify how to unpack the Design Center files.
Obtain Write Lock	Lock the selected component. If you lock a component, only you can edit the component. Applicable only if Design Center is connected to a Version Control System (CVS in this release).
Release Write Lock	Unlock the selected component. If you unlock a component, you can view the settings in the corresponding view, but you cannot edit the component. Applicable only if Design Center is connected to a Version Control System (CVS in this release).
Reload Component	Revert to the latest saved version of the selected component.

Command	Description
Add to Project	Link an existing Project component (Platform, Message configuration, Runtime configuration, or resource set) to the Project. This command launches a file browser where you browse to and select the Project file you want to link to the Project. The Project component node is added below the Project node, or in a folder if a folder is selected in the Project browser.
Export	Export the Project to disk. This command opens the *Export dialog box* where you specify the export settings. If Design Center is connected to a VCS, you must use the **Version Control** > **Create Release** command instead.
Project Export Settings	Open the *Project Export Settings dialog box*, where you can configure input analyzer and notifications settings.
Rename	Rename the selected item.
Settings	Open the *Project Settings dialog box*, where you configure the overall Project settings.
File Properties	Open the Properties dialog box. The Properties dialog box shows the path to the Design Center file of the selected Project browser node. It also displays VCS information about the same file.
Open/Activate view	Activate the view of the selected Project node.
Remove from Project	Remove the selected node and all its children from the Project. The corresponding Design Center files are not deleted.
Delete Physical Item	Delete the selected physical layer. Applicable to physical Platform and Runtime configuration layer nodes. Note that this will delete both the physical Platform and Runtime configuration layers.

Project Settings dialog box

In the Project Settings dialog box, you can configure the overall Project settings.
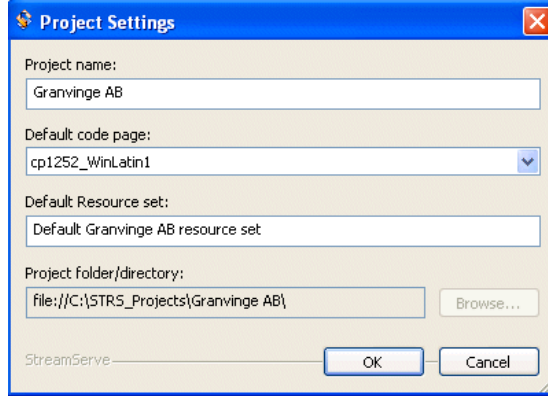
Figure 74   The Project Settings dialog box.

The settings are described in the table below.

Setting	Description
Project name	The name of the Project.
Default code page	The default code page in all code page drop-down lists in the Project.
Default Resource set	The default resource set of the Project. This resource set is automatically connected to all Platforms, Message configurations, and Runtime configurations you create from within the Project.
Project folder/ directory	The path to the Project file storage.

Project Package information dialog box

In the Project Package information dialog box you specify whether to save a package as a Project package or as a Project template. You also specify/edit the category and description of templates in this dialog box.
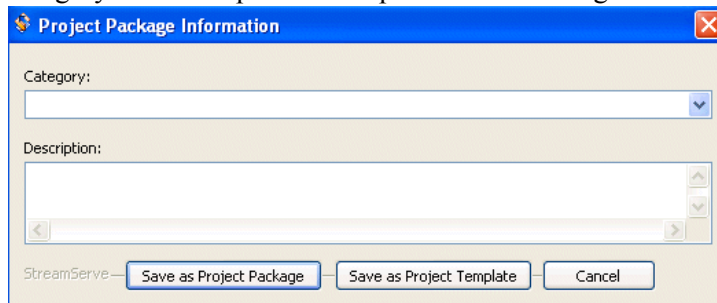
Figure 75   The Project Package information dialog box.

The settings are described in the table below.

Setting	Description
Category	The category label of a template. When you create a new Project using this template, you will find the template under the category you specify here.
Description	A description of a template. When you create a new Project using this template, you see this description when you select the template.
Save as Project Package	Save the Project as a Project package.
Save as Project Template	Save the Project as a Project template.

Unpack Project dialog box

In the Unpack Project dialog box, you specify how to unpack a Project Package. There are two modes to unpack a Project:

- **Simple mode** – use this mode if you want to create the same Project file/folder structure as in the original Project.

- **Advanced mode** – use this mode if you want to modify the Project file/folder structure used in the original Project.

Simple mode
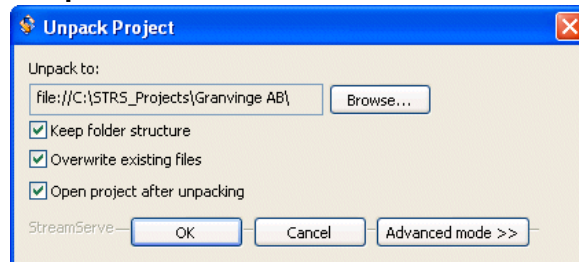
Figure 76   The Unpack Project dialog box – Simple mode.

The settings are described in the table below.

Setting	Description
Unpack to	The path defining where to unpack the Project. The Project folder of the unpacked Project will be located here.

Setting	Description
Keep folder structure	Select to store the unpacked files in the same file and subfolder structure as in the original Project. If you do not select this option, all unpacked files are stored directly under the Project folder
Overwrite existing files	Select to overwrite existing files.
Open Project after unpacking	Select to open the Project in Design Center after unpacking.

Advanced mode
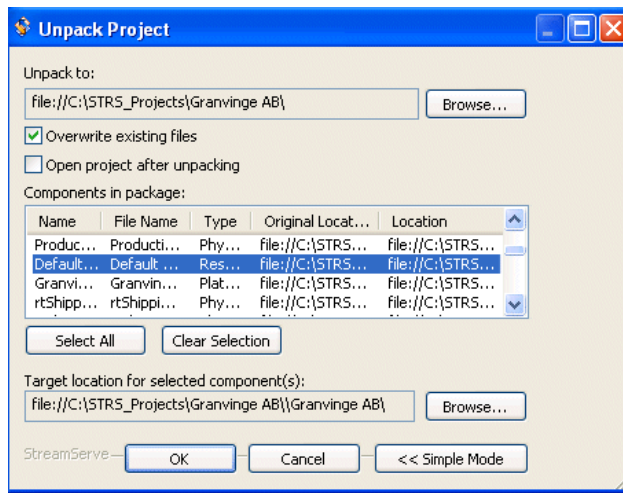
Figure 77 The Unpack Project dialog box – Advanced mode.

The settings are described in the table below.

Setting	Description
Unpack to	The path defining where to unpack the Project. The Project folder of the unpacked Project will be located here. By default, the sub folder structure is inherited from the original Project as displayed in the **Location** column in the **Components in package** list below. Use **Target location for selected components** below to specify alternate locations for selected files.
Overwrite existing files	Select to overwrite existing files.
Open Project after unpacking	Select to open the Project in Design Center after unpacking.

Setting	Description
Components in Package	List displaying all files in the package. • **Name** – The name of the component. For example, msgInvoice. • **File name** – The name of the corresponding Project file. For example, msgInvoice.dcmessage. • **Type** – The type of component. For example, Message. • **Original location** – The location of the original Project file. For example: file://C:\Projects\ABC_COM\Invoice • **Location** – The path where to store the unpacked file. For example: file://H:\ABC_COM\Invoice
Target location for selected components	Select one or more files (Ctrl + SELECT or SHIFT + SELECT) in the **Components in package** list, and specify where to store the unpacked files.

Create Project from Template dialog box

In the Create Project from Template dialog box, you select which template to use when creating a new Project.
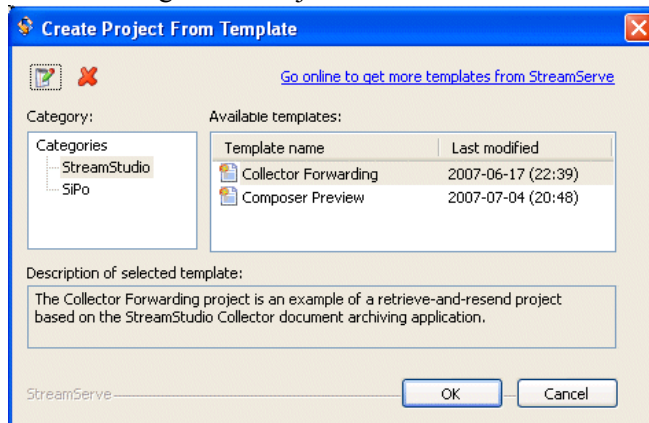
Figure 78 The Create Project from Template dialog box.

The settings are described in the table below.

Setting	Description
	Open the Project template information dialog box, where you can edit the name, category, and description of the selected template.

Setting	Description
✖	Delete the selected template.
Category	The Project template category. Each category can contain several templates.
Available templates	All available templates of the selected category. Here you select which template to use.
Description of selected template	A description of the selected template.
Go online to get more templates from StreamServe	A link to StreamServe's template download site.

Project Export Settings dialog box

In the Project Export Settings dialog box, you specify Project specific export settings.
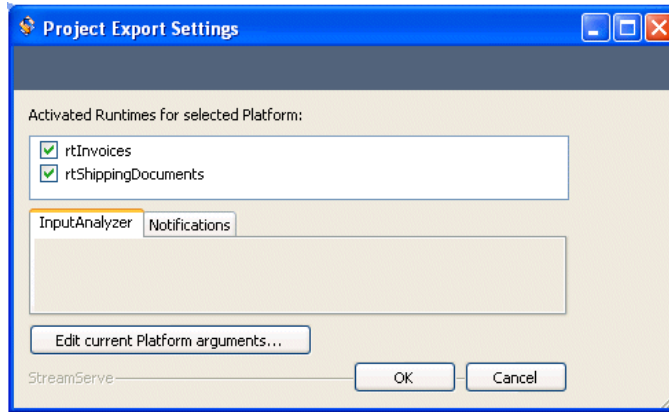
Figure 79 The Project Export Settings dialog box.

Normally, the Project contains one Platform only. If there are Several Platforms in the Project, you select the Platform by clicking the appropriate Platform icon. Then you specify the settings for the selected Platform. The settings are described in the table below.

Setting	Description
Activated Runtimes for selected Platform	Select the Runtime configurations to include in the export. All Runtime configurations built on the selected Platform are included in this list.
InputAnalyzer tab	On this tab, you configure Input Analyzer settings for the selected Platform.

Setting	Description
Notifications tab	On this tab, you specify for which connectors, Events, Processes, Jobs, etc. to generate notifications.
Edit current Platform arguments	Shortcut to the *Configure Platform Export dialog box* where you specify the startup arguments to include in the export. You specify the startup arguments per physical layer of the selected Platform.

InputAnalyzer tab

On this tab, you configure Input Analyzer settings for the selected Platform. See *Configuring the Input Analyzer* on page 69 for more information.
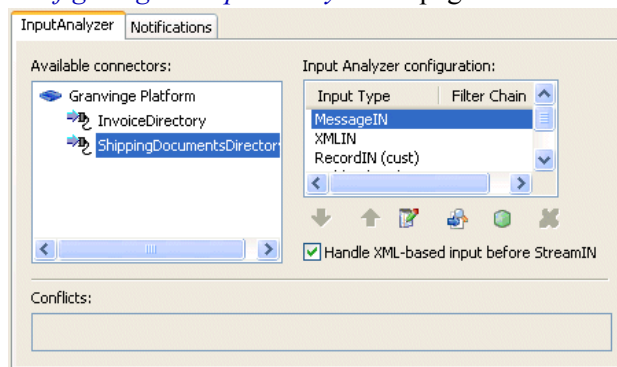
Figure 80   The InputAnalyzer tab.

The settings are described in the table below.

Setting	Description
Available connectors	This list displays all available input connectors in the selected Platform. This is where you select the input connector for which to configure the Input Analyzer settings.
Input Analyzer configuration	This list includes one row for each input type handled by the selected input connector. **Input Type** – This column displays the input types. **Filter Chain** – This column displays, per input type, the filter chains connected to the input connector.
Handle XML-based input before StreamIN	Specifies which input type category to have first in the list.
	For Connectivity Packs. See the corresponding documentation.

Setting	Description
🔍	Display the names of all Events, of the selected input type, connected to the input connector.
🟢	Add a filter chain to the selected input type. See *Applying filter chains per input type* on page 154 for more information.
⬇	Move an input type down within a category.
⬆	Move an input type up within a category.
✖	Remove the selected filter chain.

Notifications tab

On this tab, you specify for which connectors, Events, Processes, Jobs, etc. to generate notifications. See *Managing notifications* on page 71 for more information.
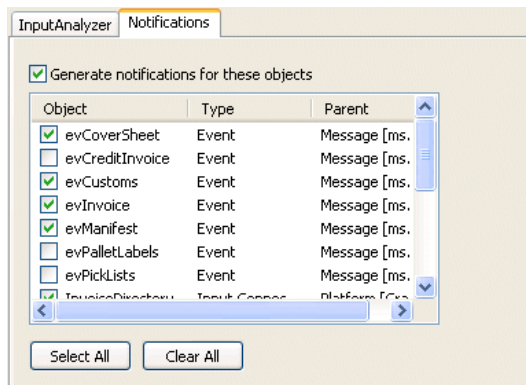
Figure 81   The Notifications tab.

The settings are described in the table below.

Setting	Description
Generate notifications for these objects	Select to generate notifications. **Note:** Notifications must be enabled for the selected Platform. See *Configure Platform dialog box – Generic layer mode* on page 215.

Setting	Description
Object list	This list displays all objects for which the StreamServer can generate notifications. The check-boxes are used to enable/disable notifications for each object. By default, all check-boxes are checked.
Select All	Select to check all check-boxes.
Clear All	Select to uncheck all check-boxes.

Font Dependencies dialog box

In the Font Dependencies dialog box, you can see all fonts used in the Project. This applies to overlays, and to PageOUT and StoryTeller Processes.
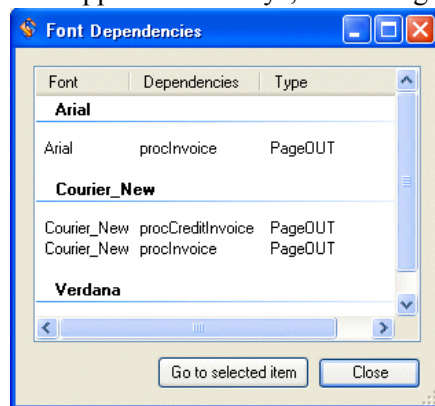
Figure 82   The Font Dependencies dialog box.

All used fonts are displayed in a list. You can click the column labels to set the sort criterion. The settings are described in the table below.

Setting	Description
Font	The name of the font.
Dependencies	The Process or overlay where the font is used.
Type	PageOUT, StoryTeller, or Overlay.
Go to selected item	• Activate the Message configuration that contains the Process where the font is used. The Process is highlighted in the Message view. • Activate the resource set that includes the overlay. The overlay resource is highlighted in the resource set view.

Edit Custom Fields dialog box

In the Edit Custom Fields dialog box, you You can add custom commands and keywords in order to use StreamServer functionality that cannot be configured via the standard Design Center GUI properties. See *Using custom commands and keywords* on page 72 for more information.
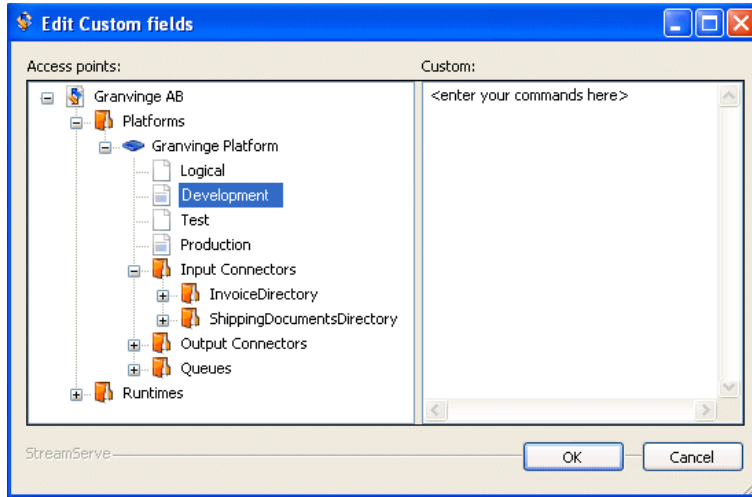
Figure 83   The Edit Custom Fields dialog box.

The settings are described in the table below.

Setting	Description
Access point	This is a browser that contains all configurable objects (connector, Message, etc.). Each object is divided into one node for the generic (Logical in the GUI) layer, and one node for each physical layer (Development, Test, etc.). You can browse through the folders and nodes in this browser the same way as you do in a file browser.
Custom	This is where you enter the custom commands for the selected Access point browser node.

Export dialog box

In this dialog box, you specify the export settings when exporting the Project to disk. To export the Project to a VCS you must use the **File** > **Version Control** > **Create Release** command.
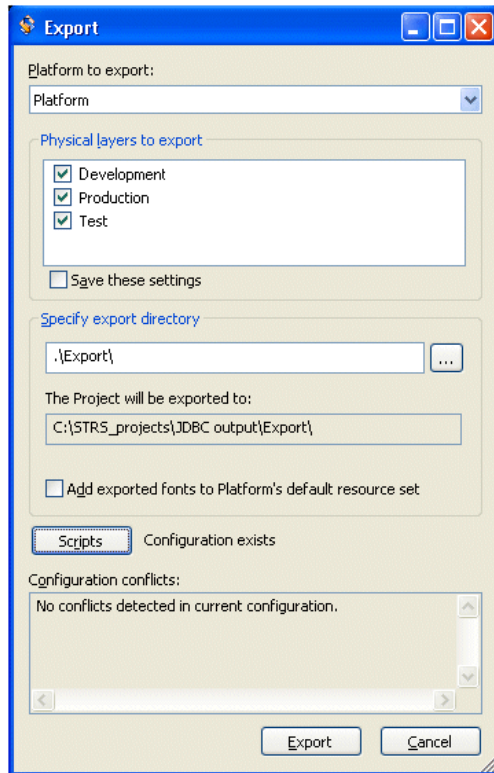
Figure 84   The Export dialog box.

The settings are described in the table below.

Setting	Description
Platform to export	Normally, the Project contains one Platform only. If there are Several Platforms in the Project, you use this drop-down list to select the Platform to export.
Physical layers to export	This list displays all physical layers in the selected Platform. The check-boxes are used to specify which layers to include in the export.
	By default, all physical layers will be included in the export. You can uncheck one or more physical layers to exclude them from the current export.
Save these settings	Select this option if you want to save the modifications done in **Physical layers to export**. If you do not select this option, all physical layers will be selected the next time you open the Export dialog box.

Setting	Description
Specify export directory	The path to the export directory. The export file will be stored in this directory.
The Project will be exported to	The absolute path to the export directory is displayed here.
Add exported fonts to Platform's default resource set	Select to add all used fonts to a resource set connected to the Platform. This ensures that all fonts are available if you move the Project to a new machine.
Scripts	Opens the *Scripts dialog box* where you can specify scripts to be executed before or after the Project is exported.
Configuration conflicts	If there are any conflicts in the export configuration, this will be displayed here.

Scripts dialog box

In this dialog box, you can specify scripts (bat, pearl or similar) to be executed before and after the Project is exported.
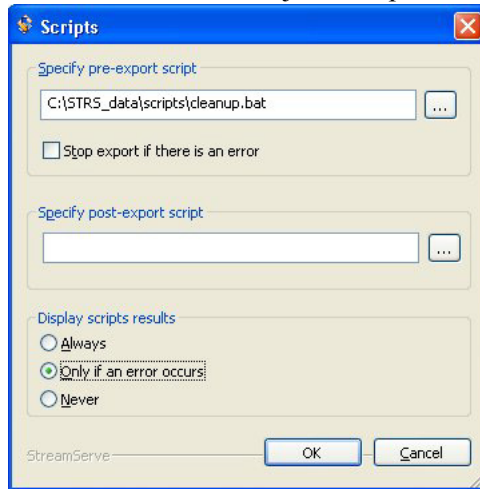
Figure 85   The Scripts dialog box.

The settings are described in the table below.

Setting	Description
Specify pre-export script	A script to execute before the export. **Usage examples** • Backup the previous export files before exporting the Project. • Backup the deployed Project before exporting the Project.
Stop export if there is an error	Select if you want to stop the export if there are errors in the pre-export script.
Specify post-export script	A script to execute after the export. **Usage examples** • Copy the export files to a remote machine. • Check in the Project files to a VCS. • Deploy the export file to a StreamServer application, and restart the StreamServer application. The script executes the command line Control Center tools for this purpose.
Display script results	Select whether to display script results: • Always • Only if an error occurs • Never

Variables set by Design Center

The following variables are set by Design Center, and can be used in the pre-export and post-export scripts:

$(ExportPackage)   The full path to the export file (*.export) created by the export.

$(ChecksumFile)   The full path to the checksum file (*.sfv) created by the export.

$(ProjectName)   The name of the Project.

$(ProjectPath)   The path to the Project folder.

Use the following syntax to pass one or more variables to the script:

"<script_path> var1[var2][var3][var4]"

Example 8   *Passing $(ExportPackage) and $(ChecksumFile) to script.*

```
"C:\scripts\copy.bat $(ExportPackage) $(ChecksumFile)"
```

Set Composition Center template version dialog box

In the Set Composition Center template version dialog box, you can update the
versions of StoryTeller Processes that are used as templates in Composition
Center.
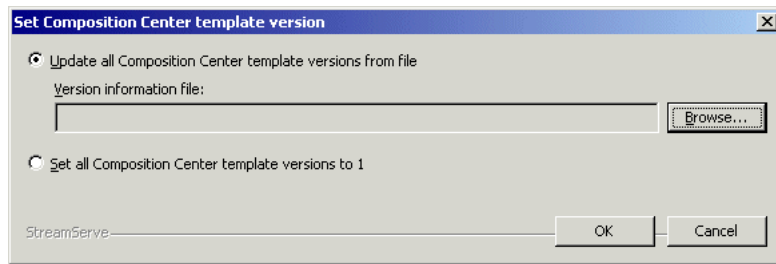
Figure 86   The Set Composition Center template version dialog box.

Setting	Description
Update all Composition Center template versions from file	Select to update all templates using version information generated after import to web content repository.
Version information file	Click **Browse** to select the template version information file located in: `<StreamServe Installation>\Applications\Management\ <version>\bin\Import`
Set all Composition Center template versions to 1	Select to set all templates to version 1.

Platform menu commands and dialog boxes

In this section

Platform menu commands

The Platform menu is available when the Platform view is activated. It includes the commands described in the table below.

Command	Description
New Input Connector	Add a new input connector to the Platform.
New Output Connector	Add a new output connector to the Platform. You must select a category when you add a connector. Later, when you specify the connector type in the physical layers, you can select any type that belongs to the category you specify here. For example, to be able to select a File connector in the physical layers, you must select the Generic category when you add the connector to the Platform.
Manage Queues	Open the *Manage Queues dialog box*, where you can configure settings for available queues, and add new queues to the Platform.
Configure Platform	Open the *Configure Platform dialog box*, where you can configure Platform specific settings.
Configure Export	Open the *Configure Platform Export dialog box*, where you can specify startup arguments to include in the export. You specify this for each physical layer.

Command	Description
Manage Physical Layers	Open the *Manage Physical Layers dialog box* where you can navigate between physical layers, add new layers, delete layers, and activate the appropriate layer. You can also use the Project browser shortcut menu to manage the physical layers.
Convert to Document Broker Plus	Convert Post-processor repository output connectors to Document Broker Plus output connectors.
Select Next Layer	Activate the next layer in the Platform layer hierarchy.
Select Previous Layer	Activate the previous layer in the Platform layer hierarchy.

Platform view shortcut menu commands

The Platform view shortcut menu (right-click the Platform view) includes the commands described in the table below.

Command	Description
New Input Connector	Add a new input connector to the Platform.
New Output Connector	Add a new output connector to the Platform. You must select a category when you add a connector. Later, when you specify the connector type in the physical layers, you can select any type that belongs to the category you specify here. For example, to be able to select a File connector in the physical layers, you must select the Generic category when you add the connector to the Platform.
Configure Platform	Open the *Configure Platform dialog box*, where you can configure Platform specific settings.
Configure Export	Open the *Configure Platform Export dialog box*, where you can specify startup arguments to include in the export. You specify this for each physical layer.
Manage Queues	Open the *Manage Queues dialog box*, where you can configure settings for available queues, and add new queues to the Platform.

Command	Description
Manage Physical Layers	Open the *Manage Physical Layers dialog box* where you can navigate between physical layers, add new layers, delete layers, and activate the appropriate layer. You can also use the Project browser shortcut menu to manage the physical layers.
Convert to Document Broker Plus	Convert Post-processor repository output connectors to Document Broker Plus output connectors.
Add Resource Set	Connect resource sets to the Platform. Opens the Select Resource Sets dialog box, where you select resource sets to connect.
Remove Resource set	Disconnect resource sets from the Platform. Opens the Remove Resource Sets dialog box, where you select which resource sets to disconnect.
Settings	Open the Settings dialog box for the connector selected in the Platform view. For example, if you select an input connector, and select this command, the Input Connector Settings dialog box opens.
Copy	Copy the selected connector.
Paste	Paste the copied connector to the Platform view.
Delete	Delete the selected connector.
Rename	Rename the selected connector.
File Properties	Open the Properties dialog box. The Properties dialog box shows the path to the Project file of the activated generic or physical layer. It also displays VCS information about the same file.

Configure Platform dialog box

In the Configure Platform dialog box, you configure Platform specific settings. This dialog box has two modes:

- The *Configure Platform dialog box – Generic layer mode*, where you specify Platform settings that apply to all physical layers.

- The *Configure Platform dialog box – Physical layer mode*, where you specify Platform settings for each physical layer.

Configure Platform dialog box – Generic layer mode

This mode is activated in the Configure Platform dialog box when the generic Platform layer is activated in the Platform view.
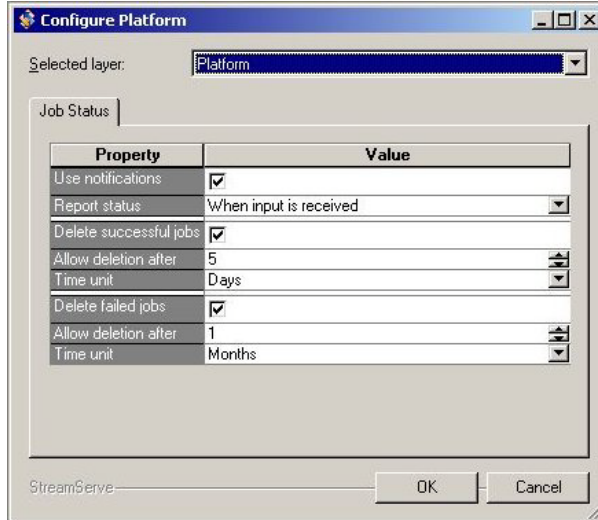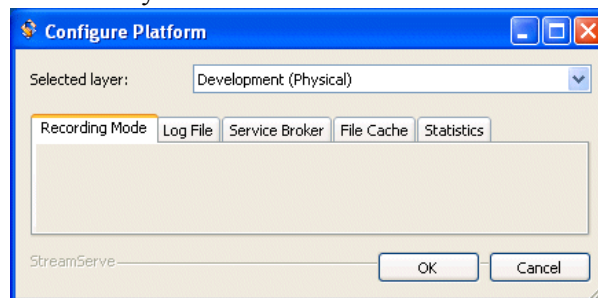

Figure 87   The Configure Platform dialog box – generic layer.

In this mode, you can specify how and when to generate job status reports. See the *Status Messenger* documentation for more information about job status reports.

You can also specify whether the job deletion thread for the runtime repository should delete successful/failed jobs in the runtime repository. Note that the scheduling of the job deletion thread is configured in repositorymanager.xml. The settings in this dialog box only specify a time after which the job deletion thread is allowed to delete jobs.

The settings are described in the table below.

Setting	Description
Use notifications	Select to enable generation of notifications.
Report status	Specify when to generate a status report.
	When input is received – Generate a status report when the input is received. This type of status report only guarantees that the StreamServer has received input.
	When output is queued – Generate a status report when the StreamServer has processed the input data, and sent the output to an output queue.
	When delivered from the output queue – Generate a status report when the StreamServer has delivered the output from the output queue.

Setting	Description
Delete successful jobs	Specify whether the job deletion thread should delete successful jobs stored in the runtime repository.
Allow deletion after	Specify the time successful jobs must be kept in the runtime repository. The job deletion thread is allowed to delete jobs that are older than the time specified.
Time unit	Specify time unit for **Allow deletion after** (successful jobs).
Delete failed jobs	Specify whether the job deletion thread should delete failed jobs stored in the runtime repository.
Allow deletion after	Specify the time failed jobs must be kept in the runtime repository. The job deletion thread is allowed to delete jobs that are older than the time specified.
Time unit	Specify time unit for **Allow deletion after** (failed jobs).

Configure Platform dialog box – Physical layer mode

This mode is activated in the Configure Platform dialog box when a physical Platform layer is activated in the Platform view.

Figure 88   The Configure Platform dialog box – physical layer.

In this mode, the dialog box is divided into the following tabs:

- *Recording Mode tab*
- *Log File tab*
- *Service Broker tab*
- *File Cache tab*
- *Statistics tab*

Recording Mode tab

On this tab, you can activate recording of page formatted input data in order to create sample files.
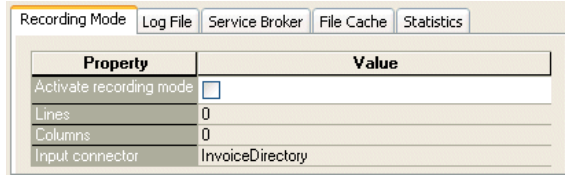
Figure 89   The Recording Mode tab.

The settings are described in the table below.

Setting	Description
Activate recording mode	Select to run the StreamServer in record only mode.
Lines	The number of lines in the input data to record.
Columns	The number of columns in the input data to record.
Input connector	The input connector that receives the data to be recorded.

Log File tab

The StreamServer application to which the Project is deployed can write log messages to a log file in the working directory. On this tab, you can specify whether to generate a log file, which type of information to include in the log file, log file truncation settings, etc.
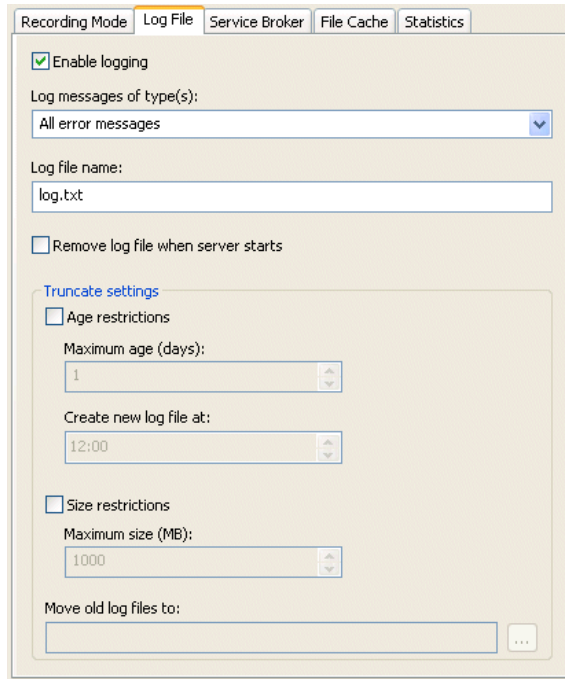
Figure 90   The Log File tab.

The settings are described in the table below.

Setting	Description
Enable logging	Select to enable logging.

Setting	Description
Log messages of type(s)	Select the type of messages to include in the log file. **Severe error messages** Only include severe error messages in the log. This is the recommended option for the production layer due to performance. **All error messages** Include all error messages in the log. This can be used in the production layer to get more information. **All error and warning messages** As the above, plus warning messages. This can also be used in the production layer to get even more information. **All error, warning and information messages** As the above, plus information messages. This is the recommended option for the development and test layers. **All error, warning and extended information messages** As the above, plus more information messages. This can be used in the development and test layers to get more information. Note that this option may complicate the search for relevant error messages, due to all information messages displayed in the log.
Log file name	The name of the log file.
Remove log files when server starts	The StreamServer application normally appends log messages to the same log file after it is restarted. If you select **Remove log file when server starts**, a new log file is created each time the StreamServer application is restarted. The old log file is deleted, and not stored anywhere.
Age restrictions	Select if you want to use the same log file for a limited number of days. Use **Maximum age (days)** and **Create new log file at** to specify when to start using a new log file. If you want to store the old log file, you must use **Move old log files to** and specify where to store the log file.
Maximum age (days)	The maximum number of days to write to the same log file.

Setting	Description
Create new log file at	The time of the day when to start writing to a new log file.
Size restrictions	Select if you want to specify a maximum size for the log file, and to start writing to a new log file when the limit is exceeded. If you want to store the old log file, you must use **Move old log files to** and specify where to store it.
Maximum size (MB)	The maximum size (MB) of the log file.
Move old log files to	The directory where to save the old log files.

Service Broker tab

On this tab, you specify which Service Broker to connect to, and the security settings for the Service Broker communication..
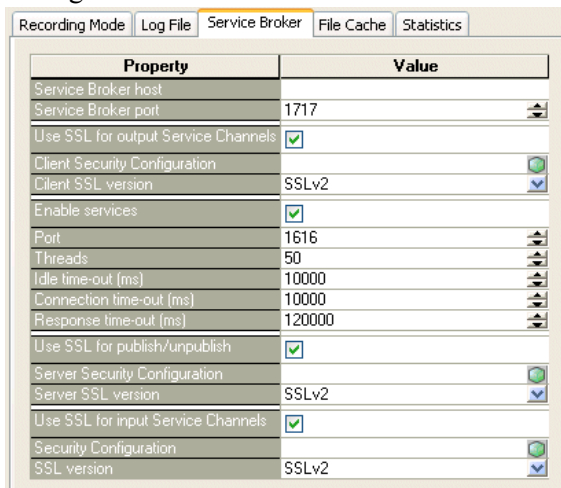
Figure 91   The Service Broker tab.

The settings are described in the table below.

Setting	Description
Service Broker host	The host where the Service Broker is running.
Service Broker port	The port number used by the Service Broker. Must be the same as `IPport` in the Control Center configuration of the Service Broker.

Setting	Description
Use SSL for output Service Channels	Select to use SSL for communication between Service Channel Submit (HTTP) output connectors and the Service Broker. This is used when the StreamServer is running as an SSL client requesting services from the Service Broker.
Client Security Configuration	The security configuration to use when the StreamServer is running as an SSL client to the Service Broker. The security configuration must be included in a resource set connected to the Platform. See *About encryption and authentication* for more information.
Client SSL version	The SSL version to use when the StreamServer is running as an SSL client to the Service Broker.
Enable services	Select to enable publishing of services in the Service Broker.
Port	The port to use to publish services, and to receive input via the Service Broker.
Threads	The maximum number of concurrent connections to the services available from the StreamServer. When all connections are busy, and a new client tries to connect to a service, the connection fails.
Idle time-out (ms)	This time-out (milliseconds) is applied when the StreamServer has finished processing a request, and no more data related to the request is received or sent. It specifies the maximum time the connection remains open, and enables the client to send a new request without having to set up a new connection.
Connection time-out (ms)	This time-out (milliseconds) is applied when the StreamServer sends or receives data The purpose is to close dead connections. If no data is sent or received during the time specified, the connection is closed.
Response time-out (ms)	This time-out (milliseconds) is applied when the StreamServer has received all data from the client. It specifies the maximum time the client is expected to wait for a response. Set this time-out to 0 if the client does not expect any response.
Use SSL for publish/unpublish	Select to use SSL when publishing/unpublishing services in the Service Broker. This is used when the StreamServer is running as an SSL client, publishing services in the Service Broker.

Setting	Description
Server Security Configuration	The security configuration to use when publishing/ unpublishing services. The security configuration must be included in a resource set connected to the Platform. See *About encryption and authentication* for more information.
Server SSL version	The SSL version to use when publishing/unpublishing services.
Use SSL for input Service Channels	Select to use SSL for communication between Service Channel (HTTP) input connectors and the Service Broker. This is used when the StreamServer is running as an SSL server invoked by the Service Broker.
Security Configuration	The security configuration to use when the StreamServer is running as an SSL server. The security configuration must be included in a resource set connected to the Platform. See *About encryption and authentication* for more information.
SSL version	The SSL version to use when the StreamServer is running as an SSL server.

File Cache tab

On this tab, you specify how to cache external XML and DTD files. See the *XMLIN* documentation for more information.
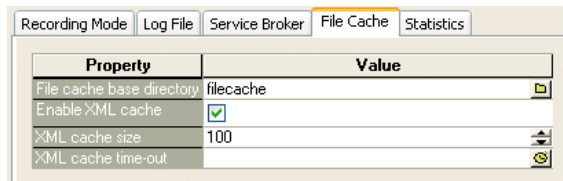
Figure 92   The File Cache tab.

The settings are described in the table below.

Setting	Description
File cache base directory	The file cache base directory. You can use an absolute path, or a path relative to the working directory of the StreamServer. XML and DTD documents are cached in a sub directory called XML.
Enable XML cache	Select to enable caching of XML and DTD documents.
XML cache size	The maximum number of documents in the XML cache directory. When the limit is exceeded, the oldest document is removed.

Setting	Description
XML cache time-out	The "best before date" for a cached document. The StreamServer checks this date each time it retrieves a document from the cache. If the document is older than the cache time-out, it will be updated.

Statistics tab

On this tab, you specify the settings for the usage statistics repository. This repository is used by the Communication Reporter. See the *Communication Reporter* documentation for more information.
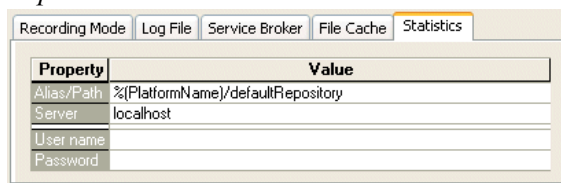
Figure 93 The Statistics tab.

The settings are described in the table below.

Setting	Description
Alias/Path	An alias or path that points to the location of the repository. The repository is created the first time you run the Project. The default path is `%(PlatformName)/defaultRepository`. The `%(PlatformName)` place holder is replaced by the name of the physical Platform layer.
Server	The host of the repository server.
User name	A user name to access the repository server.
Password	A password to access the repository server.

Manage Queues dialog box

In the Manage Queues dialog box, you can configure settings for available queues, and add new queues to the Platform.
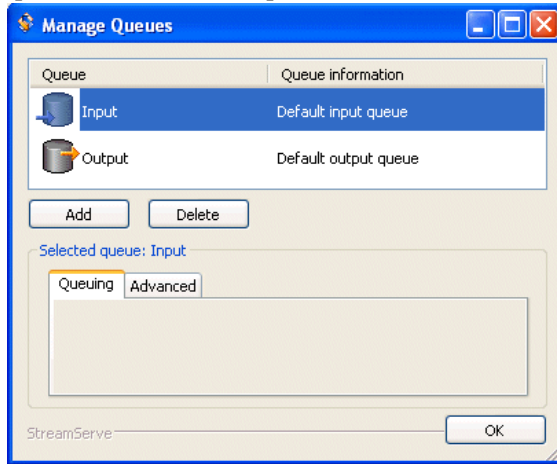
Figure 94   The Manage Queues dialog box.

The settings are described in the table below.

Setting	Description
Queue list	This list displays all available queues. This is where you select the queue you want to configure.
Add	Add a new queue to the Platform.
Delete	Delete the selected queue. The queue will be deleted from all connectors using it.
Queuing tab	On this tab, you specify how to handle successful and failed jobs.
Advanced tab	On this tab, you specify more advanced queue settings.

There are also shortcut menu commands (right-click the queue list) that you can use. The shortcut menu commands are described in the table below.

Command	Description
Add	Add a new queue to the Platform.
Delete	Delete the selected queue. The queue will be deleted from all connectors using it.
Rename	Rename the selected queue.

Command	Description
Set as default input queue	Make the selected queue the default input queue. When you add a queue to an input connector, and select the option **(Use default)**, this queue is selected.
Set as default output queue	Make the selected queue the default output queue. When you add a queue to an output connector, and select the option **(Use default)**, this queue is selected.

Queuing tab

On this tab, you specify how to store successful and failed jobs. You can also specify when and how many times the StreamServer should try to resend a failed job from the queue.
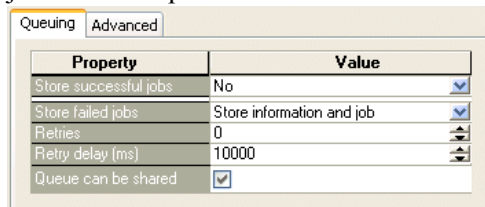
Figure 95   The Queuing tab.

The settings are described in the table below.

Setting	Description
Store successful jobs	Select the type of data to store for successful jobs. • **No** – Select to store nothing. • **Store information only** – Select to store job information. • **Store information and job** – Select to store job information and the job. This option enables jobs to be resent from the queue. Successful jobs remain in the queues as long as specified in the Platform configuration dialog box (see *Configure Platform dialog box – Generic layer mode* on page 215).

Setting	Description
Store failed jobs	Select the type of data to store for failed jobs. • **No** – Select to store nothing. • **Store information only** – Select to store job information. • **Store information and job** – Select to store job information and the job. This option enables jobs to be resent from the queue. Failed jobs remain in the queues as long as specified in the Platform configuration dialog box (see *Configure Platform dialog box – Generic layer mode* on page 215).
Retries	The maximum number of times the StreamServer should try to resend a failed job from the queue.
Retry delay (ms)	The time (milliseconds) the StreamServer should wait before it tries to resend a failed job from the queue.
Queue can be shared	Enable sharing of the queue. If several StreamServer applications in the same application domain are used for load balancing and failover, they must be able to share queues. You must, in each Design Center Project (one Project per StreamServer application), enable sharing for all queues to be shared. **Note:** If you disable sharing for a queue in Project A, and enable sharing for the same queue in Project B, then StreamServer B can consume StreamServer A's jobs. StreamServer A cannot consume StreamServer B's jobs in this case.

Advanced tab

On this tab, you specify the number of job threads, when to process queued jobs, and schedule spooling of the queue.
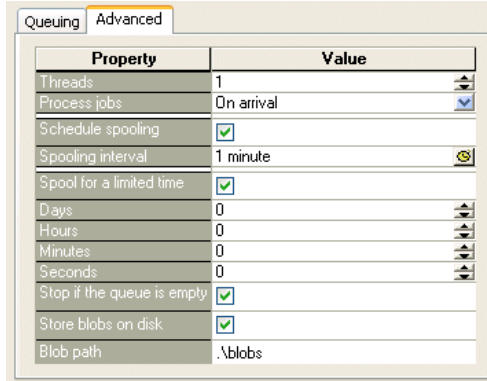
Figure 96   The Advanced tab.

The settings are described in the table below.

Setting	Description
Threads	The maximum number of job threads the queue can use. The StreamServer can process several queued jobs in parallel. This is an advantage if a large job is followed by a small job. With one single thread, the small job must wait for the large job to be completed. Note that each thread consumes system resources.
Process jobs	Specify when to process jobs. • **On arrival** – Select to process the jobs as soon as possible when they arrive to the queue. • **When parent completed** – Select to add the jobs to the queue after the parent job is successfully processed. For example, output jobs are added to the output queue after the parent job (delivered from the input queue) is successfully processed.
Schedule spooling	Select to schedule spooling of the queue. For example, if an output queue contains fax jobs, you can schedule the queue to wait until 6 pm before delivering the jobs. By default, spooling stops when the queue is empty.
Spooling interval	Open the scheduler, and specify the spooling intervals.

Setting	Description
Spool for a limited time	Select to specify a time for when to stop spooling. • If the queue still contains jobs after the specified time, the remaining jobs are handled in the next spooling interval. • If the queue is emptied before the specified time, the queue waits for new jobs to arrive. This means the new jobs can be handled in the same spooling interval. You can select **Stop if the queue is empty** to override this feature.
Days, Hours, Minutes, Seconds	The time when to stop spooling.
Store blobs on disk	Select to store blobs as files on disk. Documents in queued input/output jobs are by default stored as blobs (Binary Large Objects) in the runtime repository. You can, for each queue, select to store the blobs as files on disk instead. The runtime repository will in this case include references to the blobs stored on disk. There are several reasons to store blobs on disk, for example to: • Improve performance. • Decrease the amount of runtime repository data to backup. • Minimize the risk to reach maximum database and tablespace limits. **Note:** All jobs must be finished before you change this setting and redeploy the Project.
Blob path	Path to the folder where to store the files. To store blobs on a network share, you must use UNC (Uniform Naming Convention) when you specify the path. You cannot use drive letters. For example, you can use `\\wtvs01\data\queues` but not `H:\data\queues` when you specify the path.

Manage Physical Layers dialog box

In the Manage Physical Layers dialog box, you can navigate between physical layers, add new layers, delete layers, and activate the appropriate layer. You can also use the Project browser shortcut menu to manage the physical layers.
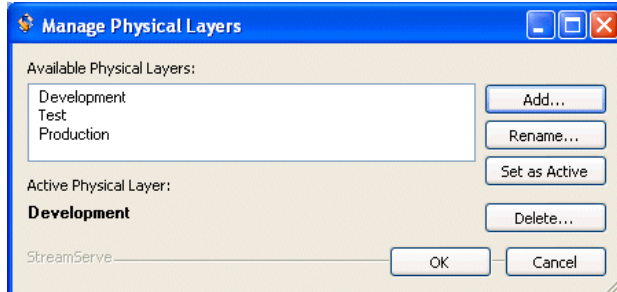
Figure 97   The Manage Physical Layers dialog box.

The settings are described in the table below.

Setting	Description
Available Physical Layers	This list displays all physical Platform layers.
Active Physical Layer	Displays the currently active physical layer.
Add	Select to add a new physical layer to the Platform.
Rename	Rename the physical layer selected in the **Available Physical Layers** list.
Set as active	Select a physical layer in the **Available Physical Layers list**, and click this button to make the selected layer the active layer.
Delete	Delete the physical layer selected in the **Available Physical Layers** list. Note that this will delete both the physical Platform and Runtime configuration layers.

Configure Platform Export dialog box

In the Configure Platform Export dialog box, you can specify arguments that are read by the StreamServer at server startup, and used when running the Project. You specify the arguments per physical layer.
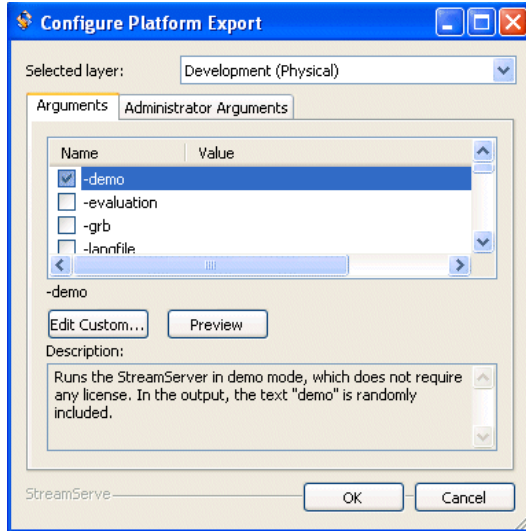
Figure 98   The Configure Platform Export dialog box.

The dialog box has two tabs:

- **Arguments**, where you specify startup arguments that are exported to the standard startup argument file. To change these arguments you must change the arguments in Design Center, export and redeploy the Project, and restart the StreamServer application.

- **Administrator Arguments**, where you specify administrator arguments that are exported to the file sysadmin.arg in the working directory of the StreamServer. To change these arguments, the administrator can edit sysadmin.arg and restart the StreamServer.

The settings described below apply to both the Arguments and Administrator Arguments.

Setting	Description
Selected layer	Use this drop-down list to select the physical layer to configure.
Name/Value list	Used to select which standard arguments to include in the argument file. To select an argument you must check the corresponding check box. To add a value to an argument, you must select the argument, and enter the value in the argument field below the Name/Value list.

Setting	Description
Description	Displays a short description of the selected argument. See the *Startup arguments* documentation for detailed descriptions of the arguments.
Edit Custom	Opens the Custom Arguments dialog box, where you can add custom arguments that are not included in the Name/Value list. Arguments that you add to the Before section are added before the standard arguments in the argument file. Arguments that you add to the After section are added after the standard arguments in the argument file.
Preview	Opens a preview of the argument file.

Input Connector Settings dialog box

In the Input Connector Settings dialog box, you configure the settings for the selected input connector. This dialog box has two modes:

- The *Input Connector Settings dialog box – Generic layer mode*, where you specify connector settings that apply to all physical layers.

- The *Input Connector Settings dialog box – Physical layer mode*, where you specify connector settings for each physical layer.

Input Connector Settings dialog box – Generic layer mode

This mode is activated in the Input Connector Settings dialog box when the generic Platform layer is activated in the Platform view.
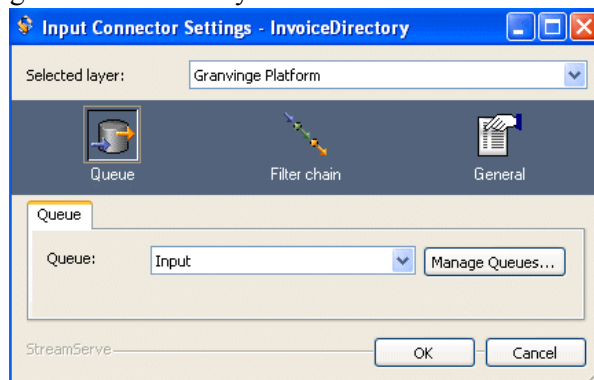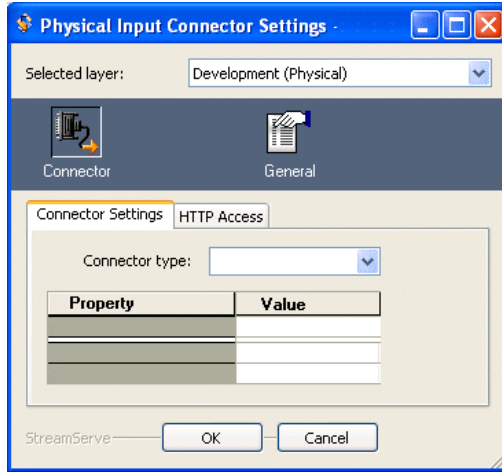

Figure 99   The Input Connector Settings dialog box – generic layer.

In this mode, the dialog box is divided into the icons and tabs shown in the table below.

Icon	Tabs
	Queue tab – On this tab, you specify which queue to connect to the connector.
	Filter chain tab – On this tab, you can connect filter chains to the input connector.
	General tab – On this tab, you can add notes to the connector.

Queue tab

On this tab, you specify which queue to add to the connector.
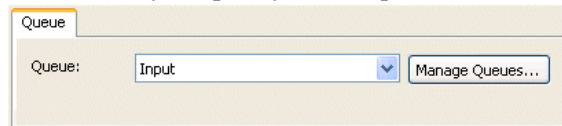
Figure 100 The Queue tab.

The settings are described in the table below.

Setting	Description
Queue	Select which queue to add to the connector.
Manage Queues	Open the *Manage Queues dialog box*, where you can add new queues, configure queue settings, etc.

Filter chain tab

On this tab, you can connect filter chains to the input connector. For example, you can apply a decompression filter to decompress input data. You must first add the filter to a filter chain, and then add the filter chain to the connector.
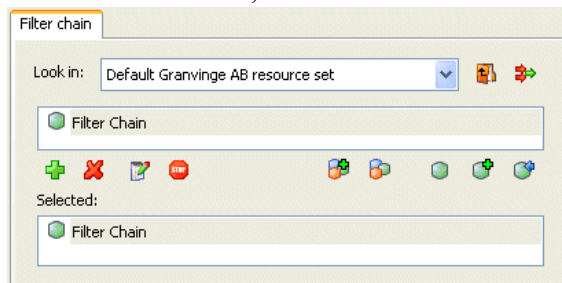
Figure 101 The Filter Chain tab.

The settings are described in the table below.

Setting	Description
Look in	Lists all available resource sets. Browse to, and select, the appropriate resource set.
	The list below contains the filter chains and folders included in the selected resource set. You can double-click a folder to display all items within. In this list, you select the filter chain to add to the connector.
Selected	This is the filter chain that will be added to the connector when you click OK. You can only select one filter chain.

Selection buttons

✚	Adds the selected filter chain to the **Selected** field. This means you have specified the filter chain to add to the connector.
✖	Removes the filter chain from the **Selected** field. This means you have not specified the filter chain to add to the connector.

Editor buttons

📝	Edit the selected filter chain.
🛑	Exit the filter chain editor.

Resource set buttons

📦	Adds an existing resource set to the Platform. This new resource set will be available in the **Look in** list. Note that the resource set is not automatically added to the Project.
📦	Creates a new resource set and connect it to the Platform. This new resource set will be available in the **Look in** list. Note that the resource set is not automatically added to the Project.

Resource buttons

⬡	Creates a new empty filter chain and add it to the selected resource set. You can now edit the filter chain and add it to the **Selected** field.
📦	Adds an existing filter chain to the selected resource set. You can now add the filter chain to the **Selected** field.
📦	Not applicable to filter chains.

General tab

On this tab, you can add notes to the connector. You can also specify whether to process all documents extracted from the input file (or equivalent) in the same

input job, or process each extracted document as a separate input job.
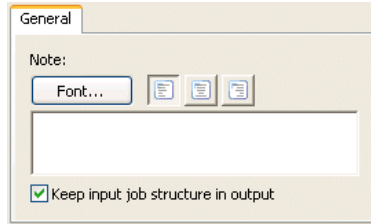
Figure 102 The General tab.

The settings are described in the table below.

Setting	Description
Note	Add notes to the connector. For example, a short description of what it is used for. Use **Font** to specify the note font, and the alignment buttons to specify how to align the text.
Keep input Job structure in output	Specifies whether to process all documents extracted from the input file (or equivalent) in the same input job, or process each extracted document as a separate input job. This affects the usage of variables and Process output since all stored variables and Processes are removed when an input job is completed. For example, it is only possible to use variables and to sort Process output within the same input job. If selected, the StreamServer processes all extracted documents in the same input job. If not selected, the StreamServer processes each extracted document as a separate input job. This reduces the use of memory and disk space when handling large jobs, but the Process output and all stored variables are removed when the document is completed.

Input Connector Settings dialog box – Physical layer mode

This mode is activated in the Input Connector Settings dialog box when a physical Platform layer is activated in the Platform view.

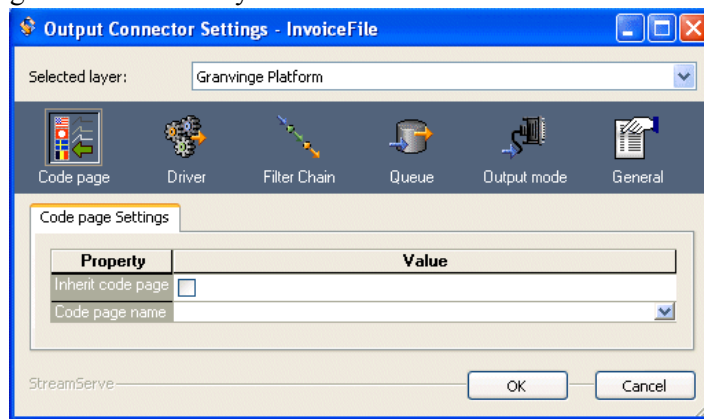
Figure 103 The Input Connector Settings dialog box – physical layer.

In this mode, the dialog box is divided into the icons and tabs shown in the table below.

Icon	Tabs
	• *Connector Settings tab* – On this tab, you select the type of input connector to use, and configure the connector type specific settings. • *HTTP Access tab* – On this tab, you configure HTTP Access settings for the connector.
	General tab – On this tab, you can add notes to the connector.

Connector Settings tab

On this tab, you select the type of input connector to use, for example a Named pipe input connector. You also configure the connector type specific settings on this tab.
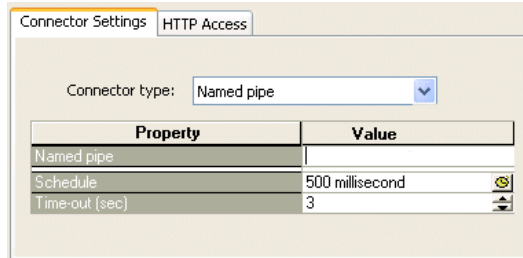
Figure 104 The Connector Settings tab (Named pipe connector in this example).

The settings are described in the table below.

Setting	Description
Connector type	Select the type of input connector to use. See *Input connectors*.
Property/Value list	Configure the settings of the selected connector type.

HTTP Access tab

On this tab, you configure HTTP Access settings for the connector.
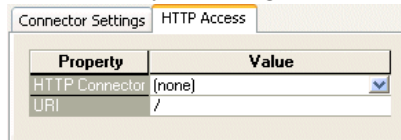
Figure 105 The HTTP Access tab.

You must configure HTTP Access settings in order to receive input via an HTTP or HTTPS input connector. The input received via the HTTP(S) input connector can also be passed on to another connector. In this case, you must also configure the HTTP Access settings for that connector.

Note: The connector must be connected to a queue.

Example 9   HTTP Access configuration for an HTTP connector and an Internal connector

This example includes one HTTP connector called HTTP_IN and one Internal connector called INTERNAL. The connectors have the HTTP Access configurations shown below.

-	HTTP Connector	URI
HTTP_IN	HTTP_IN	/

-	**HTTP Connector**	**URI**
INTERNAL	HTTP_IN	/internal

A request sent to www.abc.com/ is received and handled by HTTP_IN.

A request sent to www.abc.com/internal is received by HTTP_IN and forwarded to INTERNAL.

The settings are described in the table below.

Setting	Description
HTTP Connector	All HTTP and HTTPS connectors in the Platform are available in this drop-down list. If you are configuring an HTTP or HTTPS connector, you must select that connector. For example, if you are configuring an HTTP connector called HTTP_IN, you must select HTTP_IN from the drop-down list. If you are configuring any other type of connector, you must select the HTTP or HTTPS connector to collect the input from.
URI	The URI of the connector you are configuring.

General Settings tab

On this tab, you can add notes to the connector.
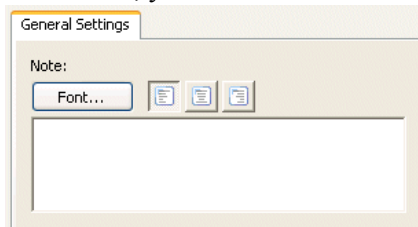
Figure 106 The General Settings tab.

The settings are described in the table below.

Setting	Description
Note	Add notes to the connector. For example, a short description of what it is used for. Use **Font** to specify the note font, and the alignment buttons to specify how to align the text.

Output Connector Settings dialog box

In the Output Connector Settings dialog box, you configure the settings for the selected output connector. This dialog box has two modes:

- The *Output Connector Settings dialog box – Generic layer mode*, where you specify connector settings that apply to all physical layers.

- The *Output Connector Settings dialog box – Physical layer mode*, where you specify connector settings for each physical layer.

Output Connector Settings dialog box – Generic layer mode

This mode is activated in the Output Connector Settings dialog box when the generic Platform layer is activated in the Platform view.

Figure 107 The Output Connector Settings dialog box – generic layer.

In this mode, the dialog box is divided into the icons and tabs shown in the table below.

| Icon	Tabs
	Code page Settings tab – On this tab, you can specify which code page to apply to the output data.
	• *Device Driver Settings tab* – On this tab, you can specify which device driver to add to the output connector. • *Symbol Set tab* – On this tab, you can override the symbol set specified for the connector. Only applicable when sending output to PCL printers.
	Filter Chain Settings tab – On this tab, you can connect filter chains to the output connector.

Icon	Tabs
	Queue Settings tab – On this tab, you specify which queue to connect to the connector.
	Output mode tab – On this tab, you specify the output mode for the connector.
	General Settings tab – On this tab, you can add notes to the connector. You can also specify options for downloading files (soft fonts, overlays, etc.) to a printer.

Code page Settings tab

On this tab, you can specify which code page to apply to the output data. See *About code pages and Unicode support* for more information about code pages.

Property	Value
Inherit code page	☐
Code page name	Unicode (UCS-2)
Reorder BiDi output in visual order	☐
Add byte order mark	☑
Byte order	Most significant byte last (Little Endian)
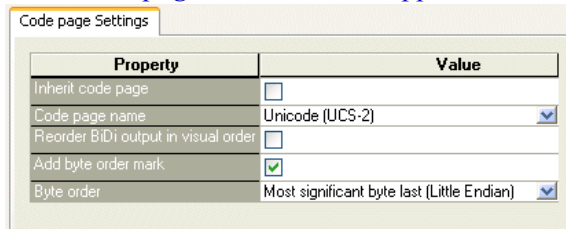
Figure 108 The Code page Settings tab.

The settings are described in the table below.

Setting	Description
Inherit code page	Select to inherit the code page specified for the input, and use the same code page for both input and output.
Code page name	Specify a different code page for the output. This code page must at a minimum cover all the characters covered in the code page for the input.
Reorder BiDi output in visual order	*Only for Arabic and Hebrew code pages, and for UCS-2 and UTF-8*. The StreamServer processes bidirectional text in logical order. If required, select this option to reorder the output to visual order.
Add byte order mark	*Only for UCS-2 and UTF8*. Select to include a byte order mark at the beginning of a UCS-2 (UTF-16) or a UTF-8 encoded output file. The application that receives the output can use the byte order mark to automatically determine the encoding (UTF-8 or UTF-16 encoding scheme) and byte order for the data in the UTF-16 encoding scheme.

Setting	Description
Byte order	*Only for UCS-2.* For the UTF-16 encoding schemes, each character code unit is represented by two bytes. When you select UCS-2 as code page, you must also specify the byte order. The byte order to select depends on the application that receives the output.

Device Driver Settings tab

On this tab, you can specify which device driver to add to the output connector.
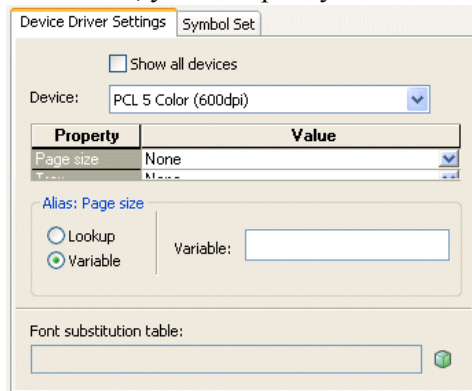
Figure 109 The Device Driver Settings tab.

The settings are described in the table below.

Setting	Description
Show all devices	Select to show all available device drivers in the Device drop-down list.
	If you do not select this option, the device Device drop-down list only includes a selection of device drivers. You can configure this list in the Device tool by selecting the option **Include in device filter** for the device drivers to include.
Device	Select which device driver to add.
Property/Value list	Configure the settings of the selected device driver.
Alias	Specify aliases for the driver settings. See *Dynamic selection using aliases* on page 143.
	Use the following syntax in the lookup table:
	Event.Process.Option.key_value Value
	For example:
	`ev1.pr1."Print Orientation:".DEN    Landscape`

Setting	Description
Font substitution table	Select a font substitution table if you want to add new fonts or override font definitions in the selected device. The font substitution table must be added to a resource set connected to the Platform.

You can add new font entries to a font substitution table instead of editing the actual driver file. The new font entries are added to the exported driver file. You can also add font entries that override font entries in the driver file. The font entry syntax depends on the driver to be used. See *Managing fonts* for more information. |

Symbol Set tab

On this tab, you can override the symbol set specified for the connector. Only applicable when sending output to PCL printers.
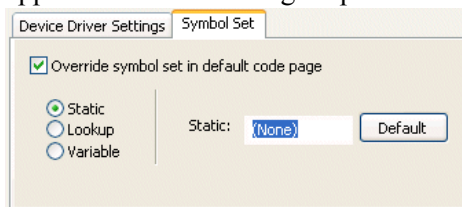
Figure 110 The Symbol Set tab.

When sending output to a PCL printer, there you can override the symbol set in the code page specified for the connector, and specify a different symbol set for the printer. The settings are described in the table below.

Setting	Description
Override symbol set in default code page	Select to override the symbol set.
Static	Select to use a static symbol set.
Lookup	Select to use a lookup table to specify which symbol set to use. See *Dynamic selection using aliases* on page 143 for information on how to use lookup tables.
Variable	Select to use a variable to specify which symbol set to use. See *Dynamic selection using aliases* on page 143 for information on how to use variables for this purpose.

Filter Chain Settings tab

On this tab, you can connect filter chains to the input connector. For example, you can apply a decompression filter to decompress input data. You must first add the filter to a filter chain, and then add the filter chain to the connector.
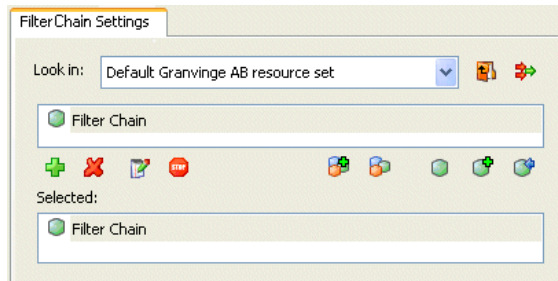
Figure 111 The Filter Chain Settings tab.

The settings are described in the table below.

Setting	Description
Look in	Lists all available resource sets. Browse to, and select, the appropriate resource set.
	The list below contains the filter chains and folders included in the selected resource set. You can double-click a folder to display all items within. In this list, you select the filter chain to add to the connector.
Selected	This is the filter chain that will be added to the connector when you click OK. You can only select one filter chain.

Selection buttons

✚	Adds the selected filter chain to the **Selected** field. This means you have specified the filter chain to add to the connector.
✖	Removes the filter chain from the **Selected** field. This means you have not specified the filter chain to add to the connector.

Editor buttons

	Edit the selected filter chain.
	Exit the filter chain editor.

Resource set buttons

	Adds an existing resource set to the Platform. This new resource set will be available in the **Look in** list. Note that the resource set is not automatically added to the Project.
	Creates a new resource set and connect it to the Platform. This new resource set will be available in the **Look in** list. Note that the resource set is not automatically added to the Project.

Resource buttons

	Creates a new empty filter chain and add it to the selected resource set. You can now edit the filter chain and add it to the **Selected** field.
	Adds an existing filter chain to the selected resource set. You can now add the filter chain to the **Selected** field.
	Not applicable to filter chains.

Queue Settings tab

On this tab, you specify which queue to add to the connector.
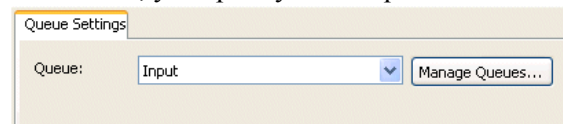
Figure 112 The Queue Settings tab.

The settings are described in the table below.

Setting	Description
Queue	Select which queue to add to the connector.
Manage Queues	Open the *Manage Queues dialog box*, where you can add new queues, configure queue settings, etc.

Output mode tab

On this tab, you specify the output mode for the connector. See *Output modes* on page 20 for more information about the different output modes.
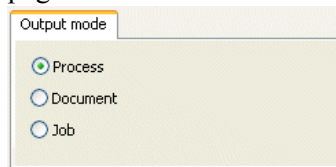
Figure 113 The Output mode tab.

The settings are described in the table below.

Setting	Description
Process	Select output mode Process. See *Output mode Process* on page 20.
Document	Select output mode Document. See *Output mode Document* on page 21.
Job	Select output mode Job. See *Output mode Job* on page 22.

General Settings tab

On this tab, you can add notes to the connector. You can also specify options for downloading files (soft fonts, overlays, etc.) to a printer.
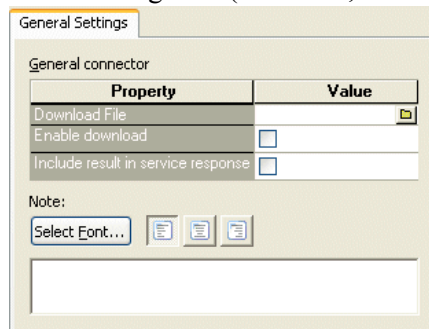
Figure 114 The General Settings tab.

The settings are described in the table below.

Setting	Description
Download File	Select a resource, for example an overlay or soft font, to download to a printer.
Enable download	Select to download the resource for each output page. If you do not select this option, the resource is downloaded only for the first page.
Include result in service response	Select to include the output data in the web service response to the client issuing the web service request. Only used if the input is received via a Service Request input connector. **Note:** This output connector must be queue enabled.
Note	Add notes to the connector. For example, a short description of what it is used for. Use **Font** to specify the note font, and the alignment buttons to specify how to align the text.

Output Connector Settings dialog box – Physical layer mode

This mode is activated in the Output Connector Settings dialog box when a physical Platform layer is activated in the Platform view.
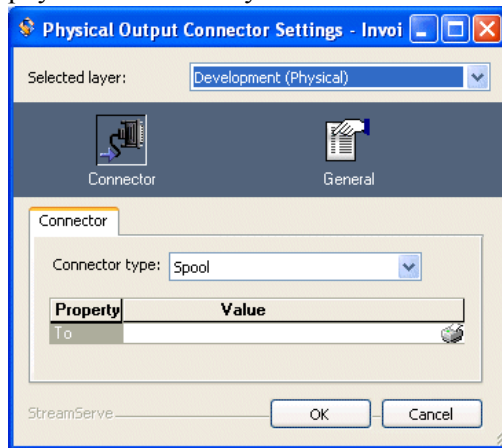
Figure 115 The Output Connector Settings dialog box – physical layer.

In this mode, the dialog box is divided into the icons and tabs shown in the table below.

Icon	Tabs
	Connector tab – On this tab, you select the type of output connector to use, and configure the connector type specific settings.
	General tab – On this tab, you can add notes to the connector.

Connector tab

On this tab, you select the type of output connector to use, for example a File output connector. You also configure the connector type specific settings on this tab.
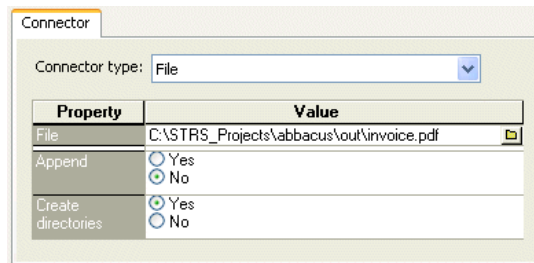
Figure 116 The Connector tab (File connector in this example).

The settings are described in the table below.

Setting	Description
Connector type	Select the type of output connector to use. See *Output connectors*.
Property/Value list	Configure the settings of the selected connector type.

General tab

On this tab, you can add notes to the connector.
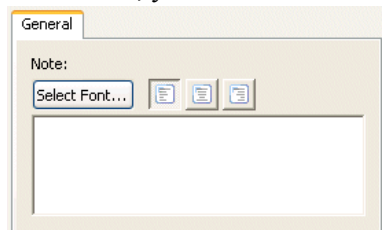
Figure 117 The General Settings tab.

The settings are described in the table below.

Setting	Description
Note	Add notes to the connector. For example, a short description of what it is used for. Use **Font** to specify the note font, and the alignment buttons to specify how to align the text.

Message menu commands and dialog boxes

In this section

Message menu commands

The Message menu is available when the Message view is activated. It includes the commands described in the table below.

Command	Description
Add Event	Add a new Event to the Message view.
Add Process	Add a new Process to the Message view.
Add Existing Process	Add an existing Process to the Message view. This command opens a dialog box where you browse to and select the Process you want to add.
Set Document Type	Only applicable when using StreamStudio Composer and Composition Center. This command opens the Select document type dialog box, where you select the appropriate document type.

Message view shortcut menu commands

The Message view shortcut menu (right-click the Message view) includes the commands described in the table below.

Command	Description
Add Event	Add a new Event to the Message view.
Add Process	Add a new Process to the Message view.
Add Resource Set	Connect resource sets to the Message view. Opens the Select Resource Sets dialog box, where you select resource sets to connect.
Remove Resource set	Disconnect resource sets from the Message view. Opens the Remove Resource Sets dialog box, where you select which resource sets to disconnect.

Command	Description
Set Document Type	Only applicable when using StreamStudio Composer and Composition Center. This command opens the Select document type dialog box, where you select the appropriate document type.
Open	Open the configuration tool for the selected Event or Process.
Close	Close the configuration tool for the selected Event or Process.
Script	Open the Script editor. In the Script editor you can create new scripts, edit existing scripts, and specify when to trigger the script.
Settings	Open the *Event Settings dialog box*, where you can configure settings for the selected Event.
Copy	Copy the selected Event or Process.
Paste	Paste the Event or Process to the Message view.
Delete	Delete the selected Event or Process.
Rename	Rename the selected Event or Process.
File Properties	Open the Properties dialog box. The Properties dialog box shows the path to the Project file of the activated Message configuration. It also displays VCS information about the same file.

Event Settings dialog box

In the Event Settings dialog box, you configure overall Event settings.
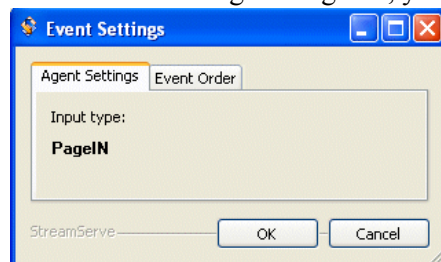
Figure 118 The Event Settings dialog box.

This dialog box is divided into the following tabs:

- *Agent Settings tab* – On this tab, you configure settings that apply to StreamIN and XMLIN Events.

- *Event Order tab* – On this tab, you specify how to aggregate output from several Events in a Message configuration.

Agent Settings tab

On this tab, you configure settings that apply to StreamIN and XMLIN Events.

StreamIN settings
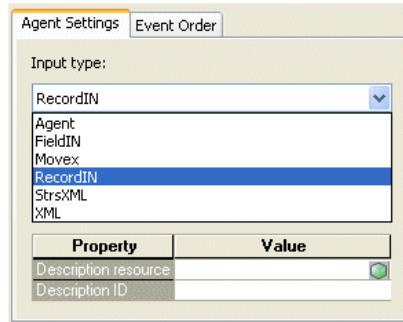
Figure 119 Agent Settings tab for StreamIN Events.

The settings are described in the table below.

Setting	Description
Input type	The input type of the StreamIN Event. Agent is only used for connectivity packs. StrsXML and XML are only used for 3.0.1 and older versions.
Description resource	The description file used by the StreamIN configuration. This file must be included in a resource set connected to the Message configuration.
Description ID	The FIELDIN or STREAMIN keyword in the description file (case sensitive).

XMLIN settings
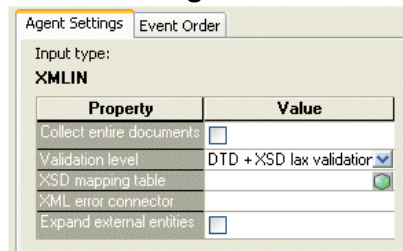
Figure 120 Agent Settings tab for XMLIN Events.

The settings are described in the table below.

Setting	Description
Collect entire documents	Select to use the Document collection mode for the XMLIN Event. This collection mode collects the whole XML document before processing and parsing the data. See the *XMLIN* documentation for more information on how the StreamServer reads and processes XML documents.
Validation level	The validation level of the XMLIN Event. See the *XMLIN* documentation for more information about validating XML input.
XSD mapping table	The XSD mapping table to use when validating input against an XSD. The mapping table contains namespace to schema location mappings. This table must be included in a resource set connected to the Message configuration.
XML error connector	Output connector for sending error messages in case of validation errors. See the *XMLIN* documentation for information about creating XMLIN validation error messages.
Expand external entities	Select to expand and process document references.

Event Order tab

On this tab, you specify how to aggregate output from several Events in a Message configuration. The output from the Events are appended to the same Message structure in the order specified on this tab. The Message structure is then passed on to the Process(es) in the Message configuration.
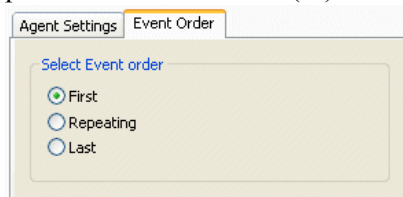
Figure 121 The Event Order tab.

The settings are described in the table below.

Setting	Description
First	Output from a `First` Event starts the Message structure. If there are no more Events in the Message configuration, or if the following Event in the Message is also a `First` Event, the Message structure only includes output from this Event.
Repeating	Output from a `Repeating` Event is appended to the Message structure. • If there are no preceding Events in the Message configuration, this option is the same as the `First` option. • If there are no following Events in the Message configuration, this option is the same as the `Last` option.
Last	Output from a `Last` Event is appended at the end of the Message structure. If there are no preceding Events in the Message configuration, the Message structure only includes output from this Event.

Runtime configuration menu commands and dialog boxes

In this section

Runtime menu commands

The Runtime menu is available when the Runtime configuration view is activated. It includes the commands described in the table below.

Command	Description
Edit Platform	Activate the Platform view.
New Job	Add a new Runtime job to the Runtime configuration view.
Add Message	Add a Message configuration to the selected Runtime job.
New Post-processor	Add a new Post-processor to the Runtime configuration view.
Add Process link	Add a Process link to the selected Post-processor.
Document Broker Plus	Activate Document Broker Plus for the runtime configuration.
Collapse all Jobs & Post-processors	Collapse all Runtime jobs and Post-processors in the Runtime configuration view. When a job is collapsed, all its Events, Processes, and connector links are hidden.

Command	Description
Expand all Jobs & Post-processors	Expand all Runtime jobs and Post-processors in the Runtime configuration view. When a job is expanded, all its Events, Processes, and connector links are displayed.
Select Next Layer	Activate the next layer node (physical or generic) in the Runtime configuration view.
Select Previous Layer	Activate the previous layer node (physical or generic) in the Runtime configuration view.

Runtime configuration view shortcut menu commands

The Runtime configuration view shortcut menu (right-click the Runtime configuration view) includes the commands described in the table below.

Command	Description
Edit Platform	Activate the Platform view.
New Job	Add a new Runtime job to the Runtime configuration view.
New Post-processor	Add a new Post-processor to the Runtime configuration view.
Document Broker Plus	Activate Document Broker Plus for the runtime configuration.
Add Resource Set	Connect resource sets to the Runtime configuration. Opens the Select Resource Sets dialog box, where you select resource sets to connect.
Remove Resource set	Disconnect resource sets from the Runtime configuration. Opens the Remove Resource Sets dialog box, where you select which resource sets to disconnect.
Collapse all Jobs & Post-processors	Collapse all Runtime jobs and Post-processors in the Runtime configuration view. When a job is collapsed, all its Events, Processes, and connector links are hidden.
Expand all Jobs & Post-processors	Expand all Runtime jobs and Post-processors in the Runtime configuration view. When a job is expanded, all its Events, Processes, and connector links are displayed.

Command	Description
Go To Source	Activate the source of the selected connector, Event, Process, or Process Link: • Opens the Platform view with the selected connector highlighted. • Opens the Message view with the selected Event or Process highlighted.
Add Message	Add a Message configuration to the selected Runtime job.
Script	Open the script editor. You can add Before and After scripts to Runtime jobs and Post-processors.
Edit Sort Definition	Open the *Edit Event Sort Definition dialog box*, where you can specify sort keys for sorting the input before the output is generated.
Set Job Sender	Open the *Set Job Sender dialog box*, where you can specify users as senders of the output job.
Connector Settings	Open the *Runtime Output Connector Settings dialog box*. This is where you configure runtime specific output connector settings.
Delete Job	Delete the selected Runtime job.
Edit Message	Activate the Message view of the selected Message configuration.
Remove Message	Remove the selected Message configuration from the Runtime configuration.
Settings	This command is applicable to the following Runtime configuration objects: • **Event** – open the *Runtime Event Settings dialog box*. • **Process** – open the *Runtime Process Settings dialog box*. • **Output connector** – open the *Edit Output Connector Settings dialog box*. • **Process link** – open the *Process Link Target Settings dialog box*.
Connector Selection	Open the *Connector Selection Method dialog box*, where you specify which connector to use to send the output from the selected Process.

Command	Description
Enabled	Enable/disable the selected Message configuration, Process, or output connector. Only applicable to physical layers.
Add Process Link	Add a new Process Link to the selected Post-processor.
Delete Post-processor	Delete the selected Post-processor.
Copy Connector Settings	Copy the connector settings in the selected output connector. All generic settings (except for notes) will be copied.
Paste Connector Settings	Paste the connector settings (see **Copy Connector Settings** above) to the selected output connector.
Rename	Rename the Message or the selected Runtime job or Post-processor.
File Properties	Open the Properties dialog box. The Properties dialog box shows the path to the Project file of the activated generic or physical layer. It also displays VCS information about the same file.

Edit Event Sort Definition dialog box

In the Event Sort Definition dialog box, you specify sort keys for sorting the input before the output is generated. You can, for example, use a Document trigger variable to sort the input before the Documents are generated.
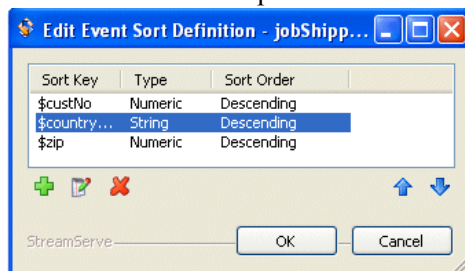
Figure 122 The Event Sort Definition dialog box.

If you add several sort keys, the sort keys will be applied in the order (top-down) they are added to the list. The settings are described in the table below.

Setting	Description
Key	A variable specified in the Message configuration (Event or script).

Setting	Description
Type	Numeric or String. Specifies whether to sort in numeric or alphabetical order.
Sort order	The sort order. Specifies whether to sort in ascending or descending order.
✚	Add a new sort key to the list.
📝	Edit the selected sort key.
✖	Delete the selected sort key.
⬆	Move up the selected sort key.
⬇	Move down the selected sort key.

Set Job Sender dialog box

In the Set Job Sender dialog box, you can specify users as senders of the output job. A sender can be validated against the internal users repository.
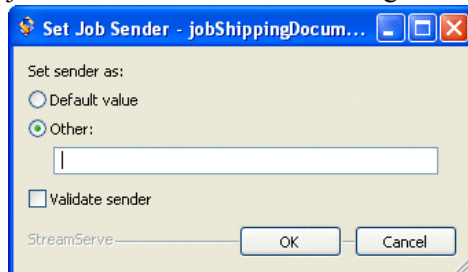
Figure 123 The Set Job Sender dialog box.

The settings are described in the table below.

Setting	Description
Default value	Select if you do not want to specify a specific user as sender of the output.
Other	Select if you want to specify a specific user as sender of the output. You can use variables.

Setting	Description
Validate sender	Select if you want to validate the sender against the internal users repository. If the sender is not found in the internal users repository, the output will not be delivered.

Runtime Output Connector Settings dialog box

In the Runtime Output Connector Settings dialog box, you configure the settings for the selected output connector. This dialog box has two modes:

- The *Runtime Output Connector Settings dialog box – Generic layer mode*, where you specify connector settings that apply to all physical layers.

- The *Runtime Output Connector Settings dialog box – Physical layer mode*, where you specify connector settings for each physical layer.

Runtime Output Connector Settings dialog box – Generic layer mode

This mode is activated in the Runtime Output Connector Settings dialog box when the generic layer is activated in the Runtime configuration view.
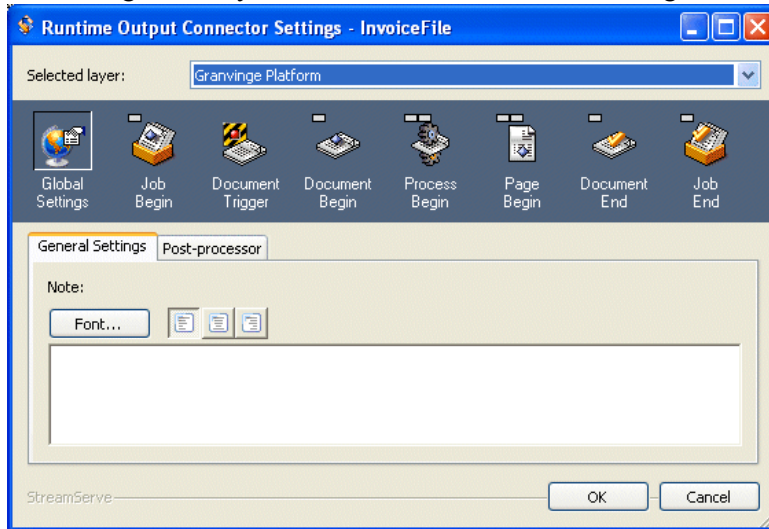

Figure 124 The Runtime Output Connector Settings dialog box – generic layer.

In this mode, the dialog box is divided into the icons and tabs shown in the table below.

Icon	Tabs
	The Global Settings icon is the entry point to the following tabs: • *General Settings tab* • *Post-processor tab*
	The Job Begin icon is the entry point to settings applied at the beginning of the input job. You configure these settings on the following tabs: • *Device driver settings tab* • *Device Driver Symbol Set tab* • *Sheet Layout tab* • *Side by Side tab* • *OMR tab* • *Labels tab*
	The Document Trigger icon is the entry point to the *Document Trigger tab* where you specify which variable to use as Document trigger.
	The Document Begin icon is the entry point to settings applied at the beginning of each Document (Document specified by a Document trigger, or a document retrieved from the Post-processor repository). You configure these settings on the following tabs: • *Device driver settings tab* • *Device Driver Symbol Set tab* • *Stored Variables tab* • *Sheet Layout tab* • *OMR tab* • *Labels tab*

Icon	Tabs
	The Process Begin icon is the entry point to settings applied at the beginning of the output from the selected Process or Process Link. You configure these settings on the following tabs: • *Device driver settings tab* • *Device Driver Symbol Set tab* • *Stored Variables tab* • *Sheet Layout tab* • *OMR tab* • *Labels tab* • *Archiving tab*
	The Page Begin icon is the entry point to settings applied at the beginning of each logical page in the documents delivered by the selected Process or Process Link. You configure these settings on the following tabs: • *Device Driver Symbol Set tab* • *Stored Variables tab* • *Sheet Layout tab* • *OMR tab* • *Labels tab*
	The Document End icon is the entry point to settings applied at the end of each Document (Document specified by a Document trigger, or a document retrieved from the Post-processor repository). You configure these settings on the following tabs: • *Stored Variables tab* • *Process Sort Definition tab* • *Archiving tab*
	The Job End icon is the entry point to settings applied at the end of the input job. You configure these settings on the following tabs: • *Enveloping tab* • *Document Sort tab* • *Archiving tab*

If any settings are configured on a tab, this is indicated by bold labels on the tab and on the icon below which the tab is located.
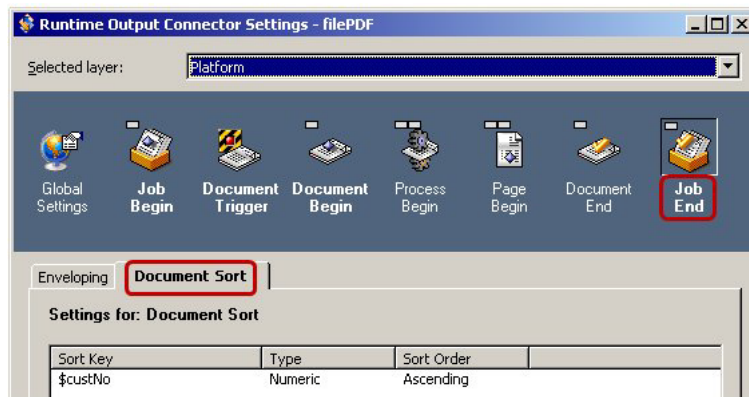

Figure 125 Bold labels on Job End icon and Document Sort tab.

Post-processing scripts

You can apply post-processing specific scripts to documents retrieved from a Post-processor repository. To enable scripting, you must select the appropriate Process Link in the Post-processor job when you open the dialog box. You can add scripts at the following levels:

- Job Begin – scripts to run before the job.

- Document Begin – scripts to run before each document.

- Process Begin – scripts to run before or after each Process document.

- Page Begin – scripts to run before or after each logical page.

- Document End – scripts to run after each Document.

- Job End – scripts to run after the job.

To launch the script editor, right-click the corresponding icon and select **Script**.

General Settings tab
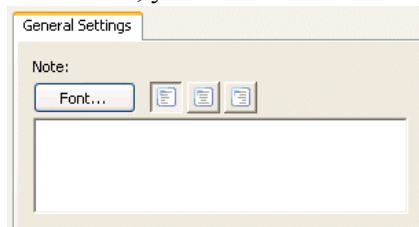
On this tab, you can add notes to the connector.

Figure 126 The General Settings tab.

The settings are described in the table below.

Setting	Description
Note	Add notes to the connector. For example, a short description of what it is used for. Use **Font** to specify the note font, and the alignment buttons to specify how to align the text.

Post-processor tab

On this tab, you enable document sorting, enveloping of documents, and post-processing scripts.
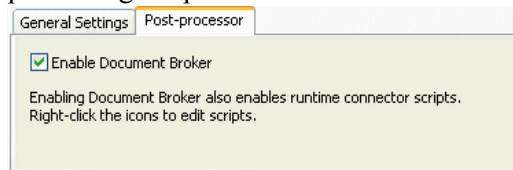
Figure 127 The Post-processor tab.

The settings are described in the table below.

Setting	Description
Enable Document Broker	Select to enable document sorting, enveloping of documents, and post-processing scripts.

Document Trigger tab

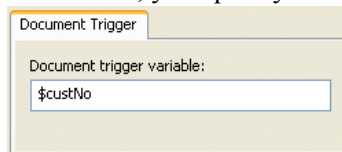On this tab, you specify which variable to use as Document trigger.

Figure 128 The Document Trigger tab.

The settings are described in the table below.

Setting	Description
Document trigger variable	The variable to use as Document trigger.

Device driver settings tab

On this tab, you can configure device driver settings. At Process Begin you can override the default driver settings specified in the Platform. For some driver types you can also configure driver settings at Job Begin and Document begin. Some driver types, for example the AFP driver, have specific settings that you must configure at Job Begin and Document Begin.
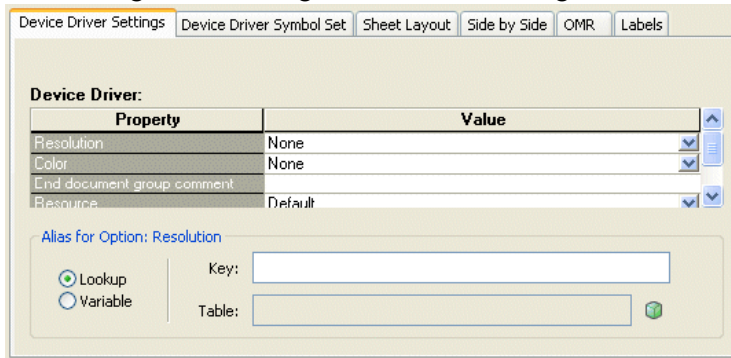

Figure 129 The Device driver Settings tab.

The settings are described in the table below.

Setting	Description
Property/Value list	Configure the settings of the selected device driver.
Alias	Specify aliases for the driver settings. See *Dynamic selection using aliases* on page 143.
	Use the following syntax in the lookup table:
	Event.Process.Option.key_value Value
	For example:
	`ev1.pr1."Print Orientation:".DEN    Landscape`

Device Driver Symbol Set tab

On this tab, you can override the symbol set specified for the connector. Only applicable when sending output to PCL printers.
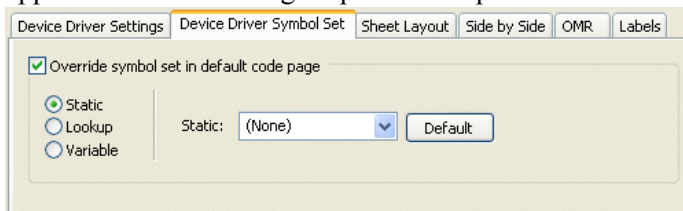

Figure 130 The Device Driver Symbol Set tab.

When sending output to a PCL printer, there you can override the symbol set in the code page specified for the connector, and specify a different symbol set for the printer. The settings are described in the table below.

Setting	Description
Override symbol set in default code page	Select to override the symbol set.
Static	Select to use a static symbol set.
Lookup	Select to use a lookup table to specify which symbol set to use. See *Dynamic selection using aliases* on page 143 for information on how to use lookup tables.
Variable	Select to use a variable to specify which symbol set to use. See *Dynamic selection using aliases* on page 143 for information on how to use variables for this purpose.

Sheet Layout tab

On this tab, you can create a sheet layout for the output documents. See the *Sheet layout* documentation for more information about sheet layouts.
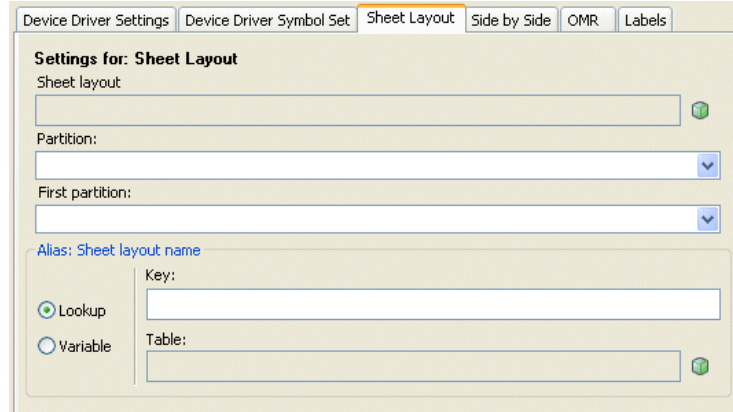

Figure 131 The Sheet Layout tab.

The settings are described in the table below.

Setting	Description
Sheet layout	The sheet layout resource to use.
Partition	Specifies how to print logical pages on the partitions specified in the selected sheet layout.
First partition	The partition where to print the first logical page.

Setting	Description
Alias	Specify aliases for Sheet layout, Partition, and First partition. See *Dynamic selection using aliases* on page 143.

Side by Side tab

On this tab, you can specify which sheet layout to use for side by side printing (2 up printing). This can be used when printing on output media that is larger than the actual sheet size defined for the output pages. For example, when printing two A4 side by side on an A3. See the *Sheet layout* documentation for more information about sheet layouts.
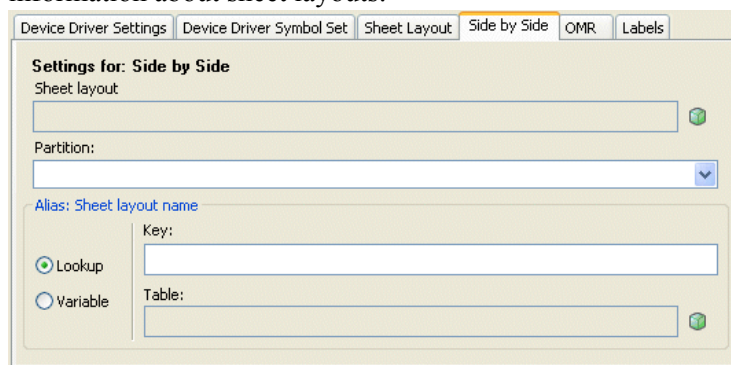

Figure 132 The Side by Side tab.

The settings are described in the table below.

Setting	Description
Sheet layout	The sheet layout resource to use.
Partition	Specifies how to print logical pages on the partitions specified in the selected sheet layout. Normally you keep this empty for 2UP printing.
Alias	Specify aliases for Sheet layout and Partition See *Dynamic selection using aliases* on page 143.

OMR tab

On this tab, you can specify OMR codes for the output documents. See the *Document sorting and bundling* documentation for information about OMR codes.

Labels tab

On this tab, you can specify labels for the output documents. See the *Document sorting and bundling* documentation for more information about labels.
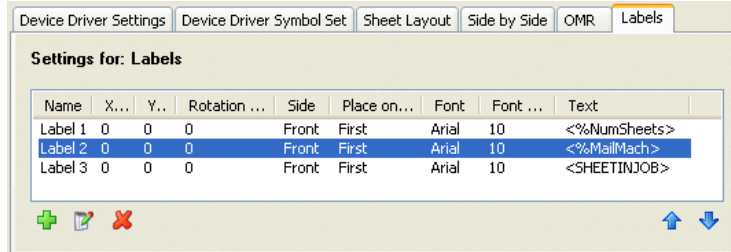

Figure 133 The Labels tab.

The settings are described in the table below.

Setting	Description
Name	The name of the label. Used only as an internal reference.
X (mm)	The distance (in millimeters) between the left edge of the label and the left border of the sheet.
Y (mm)	The distance (in millimeters) between the top edge of the label and the top border of the sheet.
Rotation (degrees)	The clock-wise rotation (in degrees) of the label.
Side	The side of the sheet where to print the label. • **None** – Do not print the label. • **Front** – Print the label on the front side of the sheet only. • **Back** – Print the label on the back side of the sheet only. • **Both** – Print the label on both sides of the sheet.

Setting	Description
Place on sheets	The sheets in a document where to print the label. • **First** – Prints the label on the first sheet in the document only. • **Last** – Prints the label on the last sheet in the document only. • **Between** – Prints the label on all sheets between first and last sheet in the document. Does not print the label on the first and last sheet. • **Not first** – Prints the label on all sheets except the first sheet in the document. • **Not last** – Prints the label on all sheets except the last sheet in the document. • **All** – Prints the label on all sheets in the document.
Font	The label text font.
Font size	The label text font size.
Text	The label text. You can use a combination of static text and variables. You can also use the following post-processing specific (case sensitive) variables: • `<%NumSheets>` – The total number of sheets in the current document. • `<%MailMach>` – The name of the mailing machine. • `<%EnvelNr>` – The number of the current envelope. Every envelope gets a unique number when it is created. • `<DOCUMENT>` – The number of the current document. Documents are numbered per segment (if defined) and mailing machine. • `<PAGEINJOB>` – The number of the current logical page. Pages are numbered per segment (if defined) and mailing machine. • `<SHEETINJOB>` – The number of the current sheet. Sheets are numbered per segment (if defined) and mailing machine. • `<PAGESINDOCUMENT>` – The total number of logical pages in the current document. • `<PAGEINDOCUMENT>` – The number of the current logical page in the current document. • `<SHEETINDOCUMENT>` – The number of the current sheet in the current document.

Setting	Description
![plus icon]	Add a new label to the list.
![edit icon]	Edit the selected label.
![delete icon]	Delete the selected label.
![up arrow icon]	Move up the selected label.
![down arrow icon]	Move down the selected label.

Stored Variables tab

On this tab, you can specify variables to store when storing documents in the Post-processor repository.
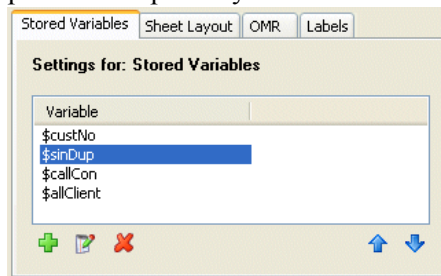

Figure 134 The Stored Variables tab.

The StreamServer application that retrieves the documents from the Post-processor repository has no access to the variables used when the documents were created. To be able to use these variables, they must be stored together with the documents. On this tab, you specify which variables to store and make available for post-processing of the stored documents. The settings are described in the table below.

Setting	Description
Variable	The list of variables to store.
![plus icon]	Add a new variable to the list.
![edit icon]	Edit the selected variable.

Setting	Description
✖	Delete the selected variable.
⬆	Move up the selected variable.
⬇	Move down the selected variable.

Process Sort Definition tab

On this tab, you can specify how to order logical pages in a Document. Note that this is for Documents specified by Document Triggers.
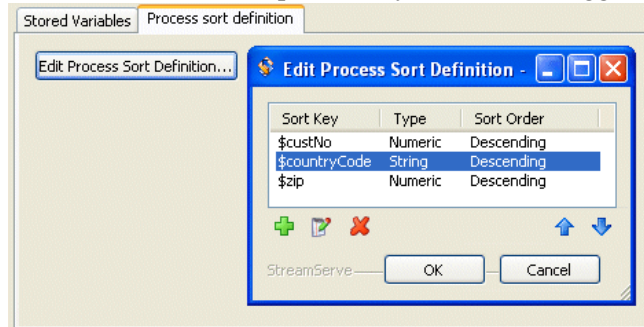

Figure 135 The Process Sort Definition tab and Edit Process Sort definition dialog box.

The settings are described in the table below.

Setting	Description
Edit Process Sort Definition	Opens the Edit Process Sort Definition dialog box, where you specify the sort keys for sorting the pages in a Document.
	You can use several sort keys, for example country code, area code, and customer number. The StreamServer will start with the first sort key in the list. You can use the Up/Down arrows to move the sort keys in the list.
➕	Add a new sort key to the list.
📝	Edit the selected sort key.
✖	Delete the selected sort key.

Setting	Description
⬆	Move up the selected sort key.
⬇	Move down the selected sort key.

Archiving tab

On this tab, you can assign a document type to the documents delivered via the connector, and specify whether to archive the documents.
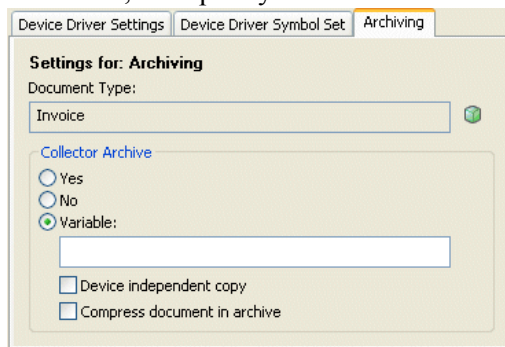
Figure 136 The Archiving tab.

The settings are described in the table below.

Setting	Description
Document type	Select the document type definition to use for the documents delivered via the connector. The document types must be available in a resource set connected to the Runtime configuration. Each document type definition resource contains metadata for a specific document type (invoice, order, etc.).
Collector Archive	Select whether to archive the documents delivered via the connector, and make the documents available from the Collector web application. Select **Yes** to archive all documents, or use a variable to determine which documents to archive. When using variables and scripting to determine which documents to archive, the variable must be set to `true` to archive and `false` to not archive (`true` and `false` are case sensitive).

Setting	Description
Device independent copy	Select to store device independent LXF copies of the archived documents. The copy can later be used to reprocess the document via StreamStudio Collector. Storing device independent copies requires more space in the storage since they are stored in addition to the archived document.
Compress document in archive	Select to compress archived documents and device independent copies of the documents. Compressing documents may affect performance when processing the output, but each document occupies less space in the storage.

Enveloping tab

On this tab, you can specify how to handle enveloping of documents. See the *Document sorting and bundling* documentation for information about enveloping.

Document Sort tab

On this tab, you can specify how to sort documents.
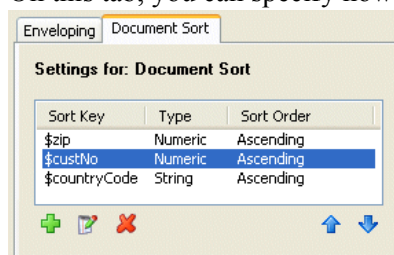
Figure 137 The Document Sort tab.

Documents in this context are either Documents defined per Runtime job (using a Document trigger) or documents retrieved by a Post-processor.

If enveloping is enabled, sorting is applied to documents within an envelope. You can, for example, use the payment due date as sort key in this case.

If enveloping is not used, sorting is applied to all documents in the job. You can, for example, use the customer name or customer number as sort key in this case. The settings are described in the table below.

Setting	Description
Key	A metadata key specified for documents retrieved from a Post-processor repository, or a variable specified for Runtime job documents.

Setting	Description
Type	Numeric or String. Specifies whether to sort the documents in numeric or alphabetical order.
Sort order	The sort order of the documents. Specifies whether to sort the documents in ascending or descending order.
✚	Add a new sort key to the list.
🗒	Edit the selected sort key.
✖	Delete the selected sort key.
⬆	Move up the selected sort key.
⬇	Move down the selected sort key.

Runtime Output Connector Settings dialog box – Physical layer mode

This mode is activated in the Runtime Output Connector Settings dialog box when a physical layer is activated in the Runtime configuration view. The context is either Process Begin, Document End, or Job End depending on the output mode specified for the connector in the Platform.
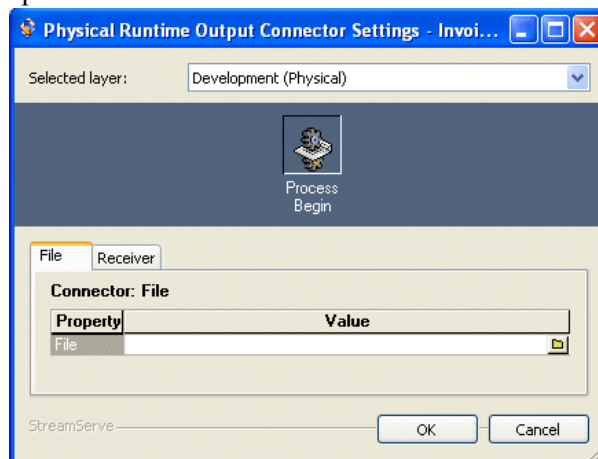
Figure 138 The Runtime Output Connector Settings dialog box – physical layer.

In this mode, the dialog box is divided into the following tabs:

•	*Connector type (File, Spool, etc.) tab*

- *Receiver tab*

If any settings are configured on a tab, the label on this tab is bold.

Connector type (File, Spool, etc.) tab

On this tab, you can override the connector settings specified in the Platform. You specify the connector type and default connector settings in the Platform.
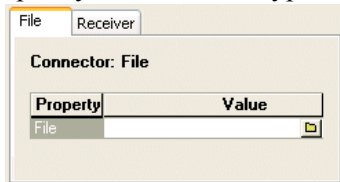
Figure 139 The "connector type" tab.

The settings are described in the table below.

Settings	Description
Property/Value list	Configure the settings of the selected connector type.

Receiver tab

On this tab, you can specify users as receivers of the output delivered through the connector. A receiver can be validated against the external users repository.
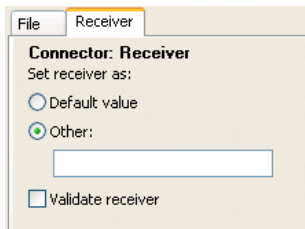
Figure 140 The Receiver tab.

The settings are described in the table below.

Setting	Description
Default value	Select if you do not want to specify a specific user as receiver of the output.
Other	Select to assign specific users as receivers of the output. You can use variables.
Validate receiver	Select to validate the receiver against the external users repository. If the receiver is not found in the external users repository, the output is not delivered.

Runtime Event Settings dialog box

In the Runtime Event Settings dialog box, you can configure runtime specific settings for the selected Event.
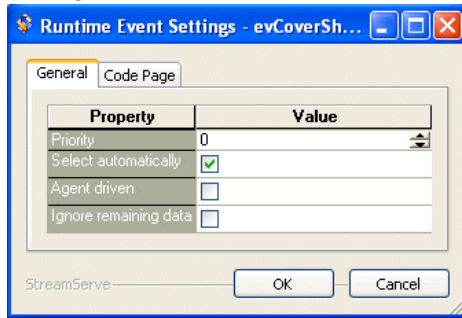
Figure 141 The Runtime Event Settings dialog box.

This dialog box is divided into the following tabs:

•   *General tab* – On this tab, you specify general Runtime Event settings.

•   *Code Page tab* – On this tab, you specify code page settings for the Event.

General tab

On this tab, you specify general Runtime Event settings.
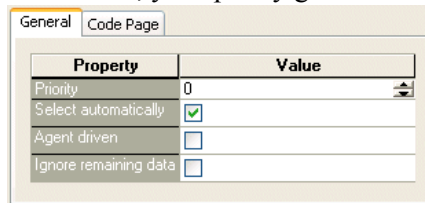
Figure 142 The General tab.

The settings are described in the table below.

Setting	Description
Priority	The priority level for the Event. The higher the number, the lower the priority. Applicable only if several Events within the same Runtime job are triggered by the same pattern.
Select automatically	Select to trigger the Event automatically. If not selected, the Event must be triggered using the *AtJobEnd* scripting function at the end of a job.

Setting	Description
Agent driven	Applicable only to Connectivity Packs. See the corresponding Connectivity Pack documentation.
Ignore remaining data	Select to ignore the remaining data when the trigger pattern is found. For example, when transmitting the entire input job via a RedirectOUT Process. The pattern must be extracted to identify the data to be transmitted, but the actual data is sent in its original format to the RedirectOUT Process.

Code Page tab

On this tab, you specify code page settings for the Event. See *About code pages and Unicode support* for more information.
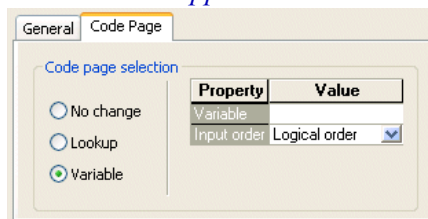
Figure 143 The Code Page tab.

The settings are described in the table below.

Setting	Description
No change	Use the code page specified for the input. This is either a code page filter added to the input connector, or a retrieved script added to the Event.

Lookup	Use a lookup table to specify which code page to use. See *Dynamic selection using aliases* on page 143. The lookup table has the following syntax:
	
	<key> <code page>
	
	Lookup table example
	
	`"Western Europe"    ISO 8859-1`
	
	`"Eastern Europe"    ISO 8859-2`
	
	`Turkish             ISO 8859-9`

Variable	Use a script to specify which code page to use. See *Dynamic selection using aliases* on page 143.

Setting	Description
Input order	This Lookup and Variable parameter specifies the ordering of characters in bidirectional input text. • **Logical order** – Select if the input does not contain Arabic or Hebrew text in visual order. • **Visual order** – Select only if the input contains Arabic or Hebrew text in visual order. The text is reordered to logical order.

Runtime Process Settings dialog box

In the Runtime Process Settings dialog box, you can configure runtime specific settings for the selected Process.
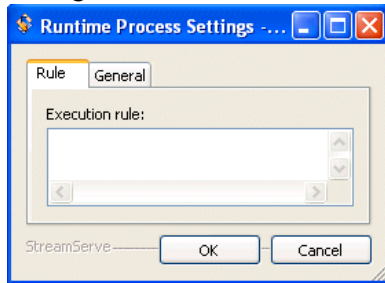
Figure 144 The Runtime Process Settings dialog box.

This dialog box is divided into the following tabs:

* *Rule tab* – On this tab, you can specify rules for when to trigger the Process.
* *General tab* – On this tab, you can specify general Runtime Process settings.

Rule tab

On this tab, you can specify rules for when to trigger the Process.
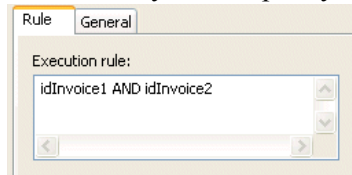
Figure 145 The Rule tab.

A rule accepts the operators AND, OR, and NOT.

General tab

On this tab, you can specify general Runtime Process settings. Some settings are Process type specific.

General tab for all Process types but PageOUT and MessageOUT

Setting	Description
Select automatically	Select to trigger the Process automatically. If not selected the Process must be triggered using the *CallProc* scripting function. **Note:** Composition Center enabled StoryTeller Processes are always automatically triggered, even if this setting is not selected.

General tab for PageOUT

Setting	Description
Select automatically	Select to trigger the Process automatically. If not selected, the Process must be triggered using the *CallProc* scripting function.
Mirror PageOUT	Select to mirror the object layout in PageOUT.
Mirroring variable	Use a variable to determine whether to mirror the object layout. If no variable is specified, the layout is always mirrored. The variable must return 0 or 1: 1 - layout is mirrored. 0 - layout is not mirrored.

General tab for MessageOUT

Setting	Description
Select automatically	Select to trigger the Process automatically. If not selected, the Process must be triggered using the *CallProc* scripting function.
Include variables in output	Select to include scripting variables in the output. You cannot include arrays or variables specified in after Process and after Message scripts.

General tab for StoryTeller and Adobe LiveCycle Designer ES

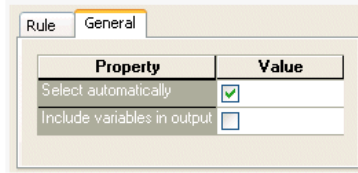| Setting	Description
Select automatically	Select to trigger the Process automatically. If not selected, the Process must be triggered using the *CallProc* scripting function.
Automatic Doc Trigger	Select to create document boundaries automatically for each Process.
Discard output on failure	Select to discard the output when an error occurs in the Process (e.g. a substitution cannot be found, or an XFA template contains errors).
	If selected, all output created by the Process (e.g. a PDF file) is discarded, and the job is marked as failed.
	If not selected, some output (or no output) is forwarded to the driver. The driver will try to process the output and, for example, create an empty PDF file or a PDF file that only contains the pages up to the page that failed.
	In both cases the job is marked as failed, and StreamServer will retry to process the job depending on the settings on the input queue.

Edit Output Connector Settings dialog box

The Edit Output Connector Settings dialog box opens when you double-click an output connector (or right-click and select **Settings**) in the Runtime configuration view. From this dialog box, you open the *Runtime Output Connector Settings dialog box* in the appropriate context.
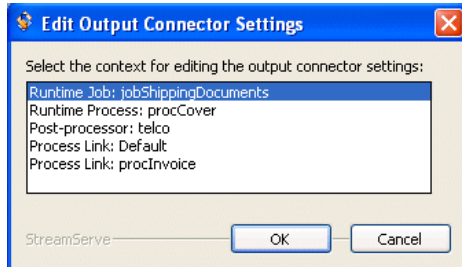
Figure 146 The Edit Output Connector Settings dialog box.

There are different contexts for configuring the output connector – you can configure the connector per Runtime job, Process in a Runtime job, Post-processor, or Process Link in a Post-processor. You specify the context by selecting an option in this dialog box and clicking **OK**.

Connector Selection Method dialog box

In the Connector Selection method dialog box, you can specify through which connector to deliver the output from the selected Process.
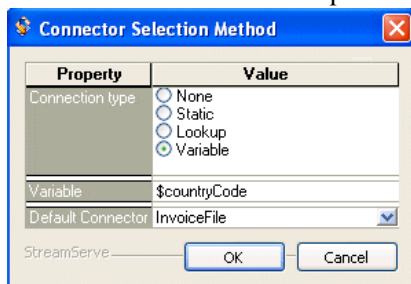
Figure 147 The Connector Selection Method dialog box.

The standard method to create a static connection between a Process and output connector is to draw a line between them (click-draw-release). In this dialog box, you have the option to create a dynamic connection using aliases (see See *Dynamic selection using aliases* on page 143). The settings are described in the table below.

Setting	Description
None	Select if you do not want to connect the Process to any output connector.

Setting	Description
Static	Select if you want to create a static connection between the Process and an output connector. Use **Connector** below to select the connector.
Connector	Select the static connector.

Lookup	Use a lookup table to select the connector. The lookup table has the following syntax:
	
	<key> <connector>
	
	Lookup table example
	 `"Mike Jones"    Printer1`
	 `"Jane Smith"    Printer2`

Variable	Use a script to select the connector.
Default connector	Select the default connector. The output is sent to this connector if there is no match in the lookup table or script.

Process Link Target Settings dialog box

In the Process Link Target Settings dialog box, you can view the target Message and target Process for the selected Process Link. If the selected Process Link is not a Default Process Link, you can edit the Process Link target.
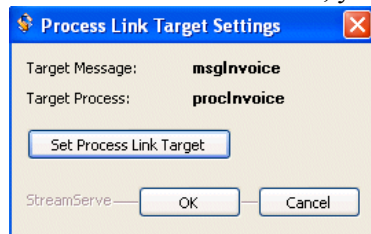
Figure 148 The Process Link Target Settings dialog box.

The settings are described in the table below.

Setting	Description
Target Message	Displays the current target Message.
Target Process	Displays the current target Process.
Set Process LInk Target	Select to change the target Message or target Process. A dialog box opens where you can select the appropriate Message and Process.

Service – <Message name> dialog box

In the Service – *<Message name>* dialog box, you enable a Message to be invoked through service requests. Based on one Runtime configuration, external applications (for example, Ad Hoc Correspondence, Correspondence Reviewer, or Composition Center) then use services to create, preview, or release Messages. Depending on the type of service request, the service gateway invokes the correct service.

If the Message is to be paused by an exception rule, for example as for Correspondence Reviewer, you must select the rule resource in the dialog box.
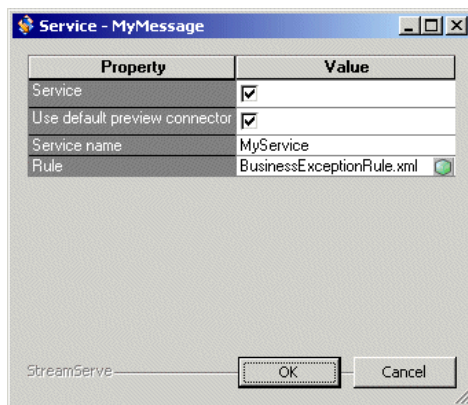
Figure 149 The Service <Message name> dialog box

The settings are described in the table below.

Setting	Description
Service	Select to enable a Message to be invoked by service requests.
Use default preview connector	*Applicable if the expected content type from the preview service request is* `application/pdf` *or* `image/tiff`. Select to use a default output connector for previewing the Message in the external application. The connector is pre-configured with certain settings (for compression, resolution, etc.) and uses output mode **Job**. The connector is not visible in the Platform configuration.
Service name	Enter a descriptive name of the service. The name must be unique within the application domain.

Setting	Description
Rule	*Applicable if the Message is to be paused by an exception rule.*
	Select the exception rule resource that pauses the Message.
	If you select several rule resources, the exception rules are evaluated, one by one, until one rule is evaluated as true or all rules are evaluated.

Resource set menu commands and dialog boxes

In this section

Resources menu commands

The Resources menu is available when the resource set view is activated. It includes the commands described in the table below.

Command	Description
New Resource	Create a new resource, and add it to the resource set. The new resource is configured using a resource editor.
Add Resource	Add an existing resource to the resource set. You must browse to and select the resource file.
Import	Create a new resource, and add it to the resource set. The new resource is created by importing an existing source file.
Import Font	Create new font resources and add them to the resource set. This command opens the *Select Fonts dialog box* where you select and import the fonts from the Fonts directory.
Import from Adobe LiveCycle Repository	Opens the Select resource browser. Used to browse for and select a resource in the LiveCycle ES2 repository. When a resource is selected, the *Import Adobe LiveCycle Repository Resource dialog box* opens.
Start Editor	Open the editor of the selected resource.
Stop Editor	Exit the editor of the selected resource.
Update From Origin	Update the selected resource with the changes made in the source file. Only applicable to resources created using the Import command.
Extract To File	Extract the data embedded in the selected resource to a file.

Command	Description
Update all Adobe LiveCycle Resources	Opens the *Update all Adobe LiveCycle Repository resources dialog box*.
Synchronize Document Types	Synchronizes Document type GUIDs. Used when upgrading.

Resource set view shortcut menu commands

The resource set view shortcut menu (right-click nodes in the resource set view) includes the commands described in the table below.

Command	Description
New	• Add a new folder to the resource set. • Create a new resource, and add it to the resource set. The new resource is configured using a resource editor.
Add Resource	Add an existing resource to the resource set. You must browse to and select the resource file.
Import	Create a new resource, and add it to the resource set. The new resource is created by importing an existing source file.
Import Font	Create new font resources and add them to the resource set. This command opens the *Select Fonts dialog box* where you select and import the fonts from the Fonts directory.
Import from Adobe LiveCycle Repository	Opens the Select resource browser. Used to browse for and select a resource in the LiveCycle ES2 repository. When a resource is selected, the *Import Adobe LiveCycle Repository Resource dialog box* opens.
Start Editor	Open the editor of the selected resource.
Stop Editor	Exit the editor of the selected resource.
Obtain Write Lock	Lock the selected resource. If you lock a resource, only you can edit the resource. **Note:** You can use write locks only if Design Center is connected to a Version Control System (CVS in this release).
Release Write Lock	Unlock the selected resource. If you unlock a resource, you cannot edit the resource.

Command	Description
Reload Component	Revert to the latest saved version of the selected resource.
Update From Origin	Update the selected resource with the changes made in the source file. Only applicable to resources created using the Import command.
Extract To File	Extract the data embedded in the selected resource to a file.
Copy	Copy the selected resource.
Paste	Paste the copied resource.
Delete	Delete the selected resource.
Rename	Rename the selected resource.
Update all Adobe LiveCycle Resources	Opens the *Update all Adobe LiveCycle Repository resources dialog box*.
Synchronize Document Types	Synchronizes Document type GUIDs. Used when upgrading.
File Properties	Display the path to, and VCS information about, the selected resource or resource set file.
Resource Type	Open the *Resource Type Settings dialog box*, where you can specify the type of the selected resource.
Resource Editor	Open the *Set Resource Editor dialog box*, where you can specify the editor to use when editing the selected resource.
Show Dependencies	Open the *Show Dependencies dialog box*, where you can see where the selected resource is used. Only applicable to the following resource types: • Image • Overlay • Sheet Layout • Metadata Group • Rule

Select Fonts dialog box

In the Select Fonts dialog box, you can import fonts from the Fonts directory to the resource set.
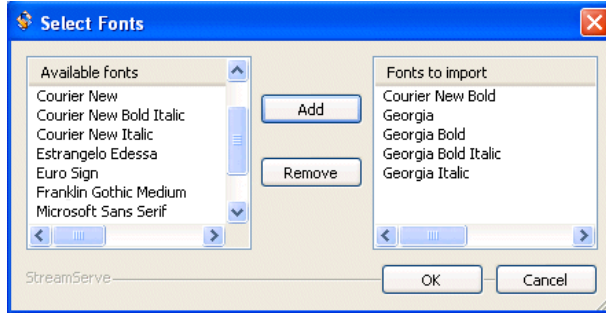
Figure 150 The Select Fonts dialog box.

The settings are described in the table below.

Setting	Description
Available fonts	Lists all available fonts in your Windows `Fonts` directory. You select the fonts to import from this list.
Fonts to import	These fonts will be imported to the resource set.
Add	Add the selected fonts to **Fonts to import**.
Remove	Remove the selected fonts from **Fonts to import**.

Resource Type Settings dialog box

In the Resource type Settings dialog box, you can specify the resource type of the resources. The dialog box opens automatically when you create resources using the Import command. You can also use this dialog box to change the resource type of resources (right-click the resource and select Resource type).

Figure 151 The Resource Type Settings dialog box.

The resource types are described in the table below.

Resource type	Description
Certificate	Certificates used for encryption and authentication. The certificate files (`*.cer`, `*.crt` etc.) must be imported.

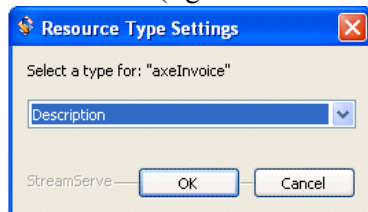| Resource type	Description
Description	Description files used by StreamIN configurations.
Document Type	Document type resources. Document types are used to categorize documents, such as, invoices, account statements and letters.
Filter Chain	Filter chains that can be connected to input and output connectors. A filter chain can contain several filters.
Font	Fonts.
Function	Function files. A function file is a text file containing user created script functions.
Generic	Imported files that do not belong to any of the standard types. This type is included in the export.
Image	Image files (`*.gif`, `*.jpeg`, etc.).
Layout Template	Layout template files.
Metadata Group	A group of metadata that can be added to the appropriate document type.
Non-exportable	Files that you do not want to include in the export. You may for example import a Word or Excel document to the Project as an attachment for information.
OutputPlus configuration	OutputPlus configuration files. Only applicable to SAP Output+.
Overlay	LXF overlays that can be included in a PageOUT configuration.
Post-processor Query	Post-processor queries.
Printer Overlay	Printer overlays that can be included in a PageOUT configuration. The printer overlay is a `PRN`, `PCL`, or `PS` file sent separately to the printer, and the preview file used in the PageOUT tool can be any type of image file (`EMF`, `WMF`, `JPEG`, etc.).
Private Key	Private keys used for encryption and authentication. The private key files (`*.pfx`, `*.p12`, etc.) must be imported.
RDI Setting	Used to import an existing `incparam` file. Only applicable to SAP E-docs.

Resource type	Description
Rule	Rule functions used in rules. The rules can be used as exception rules to pause Messages before they are formatted and delivered. If imported into StreamStudio Composition Center, the rules can be used as selection rules on resources and document definitions.
Sample	Sample files
Security Configuration	Security configurations used for encryption and authentication.
Sheet Layout	Sheet layouts.
StoryTeller Document	StoryTeller documents.
SXD File	SXD files.
Table	Table files.
XDP Template	XDP templates.
XML Stylesheet	XML stylesheets.

Set Resource Editor dialog box

In the Set Resource Editor dialog box, you can specify which editor to use when editing resources.
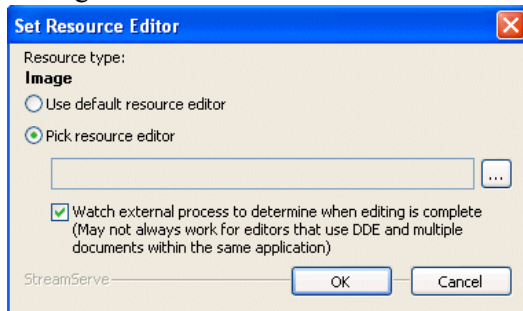
Figure 152 The Set Resource Editor dialog box.

The settings are described in the table below.

Setting	Description
Use default resource editor	Select to use the default editor for the selected resource. Only native resource types have default resource editors. See Default resource editors below.
Pick resource editor	Select to specify an editor for the selected resource. You must browse to and select the appropriate resource editor.

Default resource editors

The table below shows the default editors for the native resource types.

Resource type	Default resource editor
Description file	UTF8 Edit
Document Type	Document Type Editor
Filter Chain	Filter Chain Editor
Function file	Script Editor
Layout Template	UTF8 Edit
Metadata Group	MetaData Group Editor
OutputPlus configuration	UTF8 Edit
Overlay	Overlay Editor
Post-processor Query	Post-processor Repository Tool
RDI Setting	UTF8 Edit
Rule	Rule Editor
Sample	UTF8 Edit
Security configuration	Security Editor
Sheet Layout	Sheet Layout Editor
StoryTeller Document	StoryTeller tool
SXD file	UTF8 Edit
Table file	UTF8 Edit
XDP Template	UTF8 Edit
XML Stylesheet	UTF8 Edit

Show Dependencies dialog box

In the Show Dependencies dialog box, you can see all objects (overlays, Processes, etc.) where the selected resource is used.
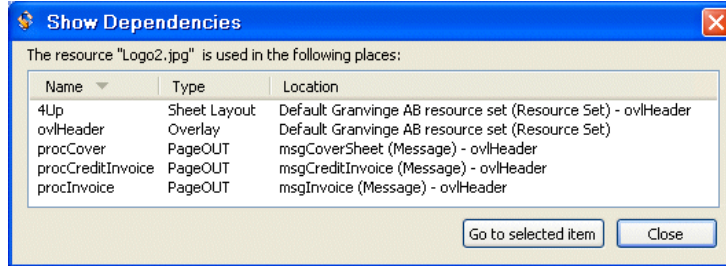

Figure 153 The Show Dependencies dialog box.

All objects are displayed in a list. You can click the column labels to set the sort criterion. The settings are described in the table below.

Setting	Description
Name	The name of the object where the resource is used.
Type	The type of object (PageOUT, Sheet Layout, etc.) where the resource is used.
Location	The location of the object where the resource is used.
Go to selected item	Activate the view that contains the object where the resource is used. The object is highlighted in the view.

Version Control menu commands and dialog boxes

In this section

Version Control menu commands

The Version Control menu is available when selecting **File** > **Version Control**. This menu includes the commands described in the table below.

Command	Description
Manage Connections	Open the *Manage Connections dialog box*, where you can: • Create new VCS connections. • Edit VCS connections. • Rename VCS connections. • Delete VCS connections. • Select a VCS connection and connect to the VCS.
Connect to	Connect to the VCS. Contains a sub menu, where you specify the VCS connection to use.
Disconnect	Disconnect from the VCS.
Add Selected	Opens the *Add to version control dialog box*, where you specify which Project nodes to add to the VCS. This command applies to the selected Project node and related nodes (nodes with dependencies to the selected node).
Add Multiple	Opens the *Add to version control dialog box*, where you specify which Project nodes to add to the VCS. This command applies to all Project nodes.

Command	Description
Check In Selected	Opens the *Check in dialog box*, where you specify which Project nodes to check in to the VCS. This command applies to the selected Project node and related nodes.
Check In Multiple	Opens the *Check in dialog box*, where you specify which Project nodes to check in to the VCS. This command applies to all Project nodes.
Check Out Selected	Opens the *Check out dialog box*, where you specify which version of the selected Project node to check out. This command applies to the selected Project node.
Check Out Multiple	Opens the *Check out multiple files or folders dialog box*, where you specify which Project nodes, and which version of the Project nodes, to check out. This command applies to all Project nodes.
Create Release	Creates an export package, and checks in the export package in the VCS.

Manage Connections dialog box

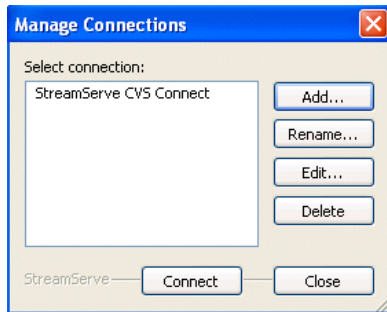In the Manage Connections dialog box, you manage all Design Center VCS connections.

Figure 154 The Manage Connections dialog box.

The settings are described in the table below.

Setting	Description
Select connection	All available VCS connections are displayed in this list.
Add	Open the *Add connection dialog box*, where you can add a new VCS connection. Before this dialog box opens, you are prompted to select the type of connection, and to specify a name for the connection. Currently, only the type CVS is available.

Setting	Description
Rename	Rename the selected VCS connection. This option is disabled if the connection is active.
Edit	Open the *Edit connection dialog box*, where you can edit the selected VCS connection. This option is disabled if the connection is active.
Delete	Delete the selected VCS connection. This option is disabled if the connection is active.
Connect	Connect Design Center to the VCS, and use the selected VCS connection.

Add connection dialog box

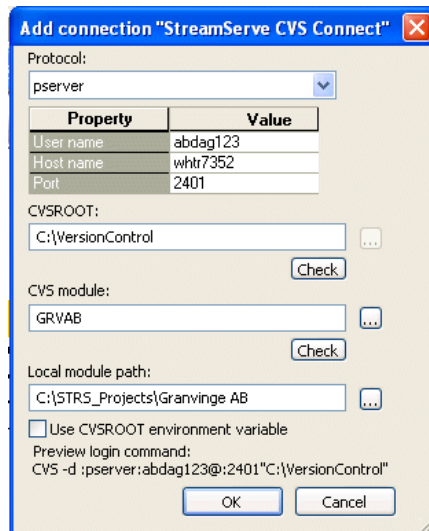In the Add connection dialog box, you specify the settings for the new VCS connection.

Figure 155 The Add connection dialog box.

The settings are described in the table below.

Setting	Description
Protocol	The access method to CVS. • **local** – Access a CVS repository directory on the same machine. Used if Design Center and CVS runs on the same machine. • **pserver** – Access a CVS repository on a remote machine via a password authenticating server. • **server** – Access a CVS repository on a remote machine using an internal rsh client.. • **ssh** – Access a CVS repository on a remote machine using ssh. • **ext** – Access a CVS repository on a remote machine using an external rsh program.
User name	The user name to access the CVS server.
Host name	The CVS server host.
Port	The port number to access the CVS server.
CVSROOT	The CVS repository address.
CVS module	The base module for the Project in CVS.
Local module path	The Design Center Project folder (working directory) that contains the Design Center files you are working with.
Use CVSROOT environment variable	For CVS experienced users only. If you select this option, you only have to enter the CVS Module name. The CVSROOT environment variable is used for calls to CVS.

Edit connection dialog box

In the Edit connection dialog box, you edit the settings for existing CVS connections. The settings are identical to the *Add connection dialog box* settings.

Add to version control dialog box

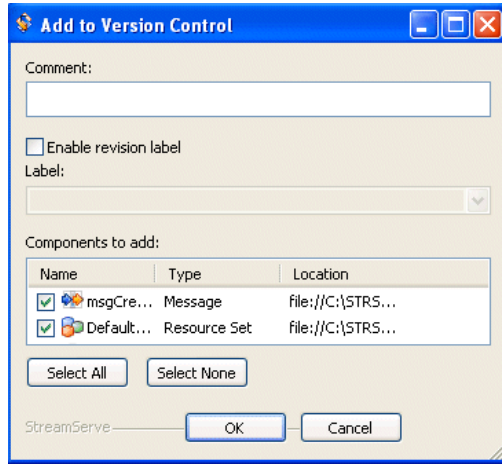In the Add to version control dialog box, you add new Design Center files to the VCS.

Figure 156 The Add to version control dialog box.

The settings are described in the table below.

Setting	Description
Comment	Comments for the added files.
Enable revision label	Select to specify a label for the checked in files.
Label	The label for the added files.
Components to add	Lists all components you can add to the VCS. You must check all the components you want to add.

Check in dialog box

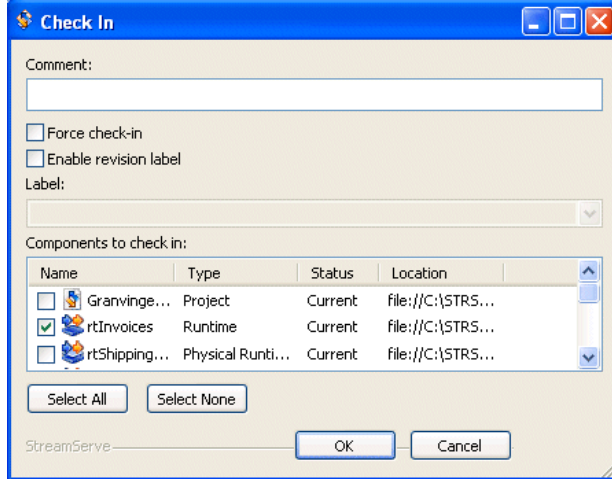In the Check in dialog box, you check in Design Center files to the VCS.

Figure 157 The Check in dialog box.

The settings are described in the table below.

Setting	Description
Comment	Comments for the checked in files.
Force check in	Select to check in files that are older than the tip revision.
Enable revision label	Select to specify a label for the checked in files.
Label	The label for the checked in files.
Components to check in	Lists all components you can check in to the VCS. You must check all the components you want to check in.

Check out dialog box

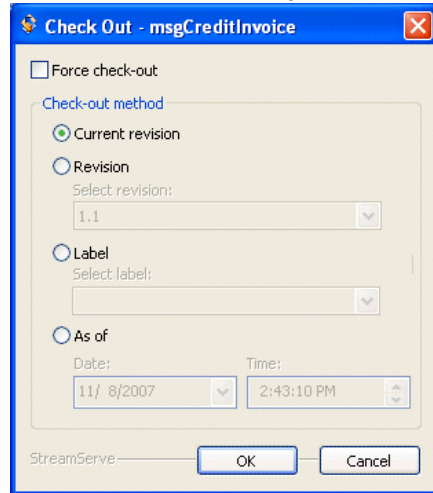In the Check out dialog box, you check out the Design Center file of the Project node selected in the Project browser.

Figure 158 The Check out dialog box.

The settings are described in the table below.

Setting	Description
Force check out	Select to overwrite any files with the same name in your working folder, even if they are more recent.
Current revision	Check out the most current revision (the tip revision).
Revision	Specify which revision to check out.
Label	Specify a label, and check out the file with that label.
As of	Check out the revision that was the tip revision at the specified date and time.

Check out multiple files or folders dialog box

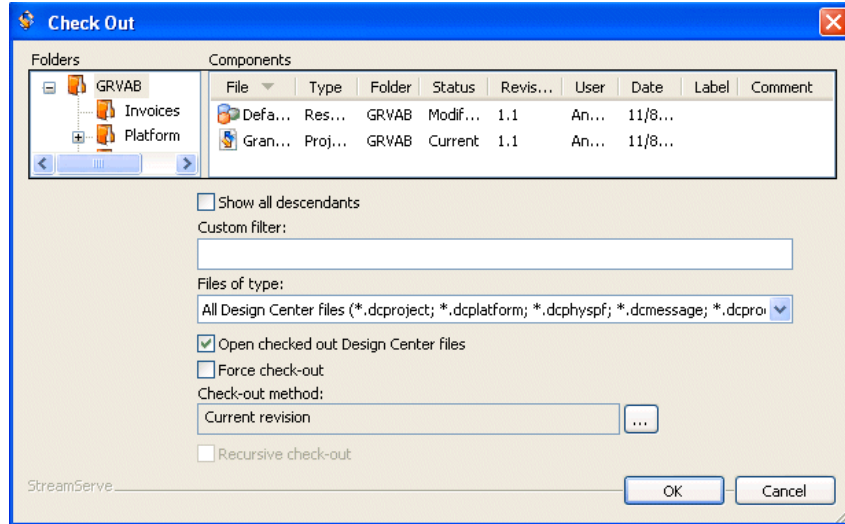In this dialog box, you can check out multiple Design Center files.

Figure 159 The Check out multiple files or folders dialog box.

The settings are described in the table below.

Setting	Description
Folders	Displays all CVS folders that contain the files. You must select the folder that contains the files you want to check out.
Components	Displays all files in the selected folder. You can use **Custom filter**, **Show all descendants**, and **Files of type** below to determine which files to display.
Show all descendants	Select to display files in sub folders below the selected folder.
Custom filter	Custom filter that enables you to specify which files to display in the **Components** list. For example, to display only files with names beginning with Invoice, you can enter `Invoice*` and press ENTER.
Files of type	Select which file types to display.
Open checked out Design Center files	Select to open the Design Center files when they are checked out.
Force check out	Select to overwrite any files with the same name in your working folder, even if they are more recent.

Setting	Description
Check out method	Opens the Check out method dialog box, where you specify which revision of the selected files to check out.
	• **Current revision** – Check out the most current revision (the tip revision).
	• **Revision** – Specify which revision to check out.
	• **Label** – Specify a label, and check out the file with that label.
	• **As of** – Check out the revision that was the tip revision at the specified date and time.
Recursive check out	Select to check out all files in all sub folders below the selected folder.

Release Locked Components in VCS dialog box

In the Released Locked Components in VCS dialog box, you can release locked Design Center files when you exit Design Center.
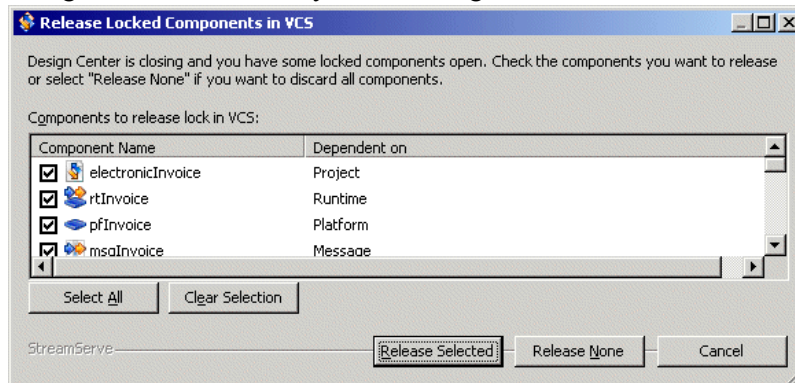

Figure 160 The Released Locked Components in VCS dialog box.

The settings are described in the table below.

Setting	Description
Release Selected	Click to release the locks from the selected files and then exit Design Center.
Release None	Click to exit Design Center without releasing any locks.