

Configuring

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Hints for using step templates

These hints for using step templates help you choose the steps to place in a workflow, order the steps in the correct sequence, and take advantage of conditional processing capabilities. The Workflow Editor does not validate workflows to make sure that steps are in the correct sequence or that conditional processing rules work.

Sample workflows for learning how to order steps

RICOH ProcessDirector includes several sample workflows and others are supplied with features, such as Archive or Inserter. We strongly recommend that you study the order of the steps in the sample workflows, especially the more complicated workflows, before you create your own.

First and last steps in a workflow

We strongly recommend that you make the first step in a workflow **SetJobPropsFromTextFile** and the last step **RemoveJobs**. When workflow receives a job, **SetJobPropsFromTextFile** reads all the steps in the workflow and initializes the values for the job properties with the defaults on those steps.

⬇ Note:

- The **AssignJobValues** step sets property values but does not assign property values from all the steps in a workflow. Because **SetJobPropsFromTextFile** considers all steps, it is a better choice for the first step.

The **RemoveJobs** step not only deletes data files from the system but also cleans up database entries for a job.

We recommend that you put a **RetainCompletedJobs** step before the **RemoveJobs** step. If your workflow does not have a **RetainCompletedJobs** step, jobs disappear from the system as soon as they complete the step before the **RemoveJobs** step.

Property values for multiple steps based on the same step template


You can place steps based on step templates with positional properties in a workflow multiple times, and their properties can take different values when each step is used. The **RunExternalProgram** step template is an example. Two different **RunExternalProgram** steps can run two different external programs.

You can also place steps based on step templates that do not have positional properties in a workflow multiple times. When you change the value of one step's properties, the values of the properties for the other steps change. The **PrintJobs** and **RetainCompletedJobs** step templates are examples.

- Two different **PrintJobs** steps can only have one **Requested printer** property value. If you want two different branches of a conditional workflow to print to a different printer, you must place a step based on the **AssignJobValues** step template before each **PrintJobs** step. Set the values you want for each branch of the conditional workflow on each **AssignJobValues** step. The value of the **Requested printer** property in each **AssignJobValues** step overrides the **Requested printer** property value in the two **PrintJobs** steps.
- Two **RetainCompletedJobs** steps can only have one **Retention period** property value. Use **AssignJobValues** steps to set different **Retention period** property values before the **RetainCompletedJobs** step.

⬇ Note:

- If a job moves through multiple workflows in your production print process, you can use **AssignJobValues** steps in one workflow to set property values for steps such as **PrintJobs** in another workflow. You cannot see the property value in the job's properties notebook while the job is in the first workflow because the step at which the property is set is not in the first workflow. As soon as the job transfers to the second workflow, you can see the property value in the job's properties notebook.

To see whether a property on a step template is positional, click the  icon and check the **Usage notes** in the help.

Different data streams in one conditional workflow

If you want to use different branches of a conditional workflow for jobs in different data streams, such as PDF and AFP, make sure that the **Input data stream** property is set properly before the job reaches the conditional processing by data stream. The **DetectInputDataStream** step sets the value of the **Input data stream** property.

If your workflow only processes one data stream, you can omit the **DetectInputDataStream** step and set the value of the **Input data stream** property on the **SetJobPropsFromTextFile** step at the start of the workflow.

If you do not set the value of the **Input data stream** property, RICOH ProcessDirector might set the value to **Unknown**. If a connector has a rule that checks the value of the **Input data stream** property, your workflow might give unexpected results when it processes jobs in **Unknown** data streams.

Steps for reprinting partial jobs

The **CreatePageRanges** step generates a subset AFP or PDF print file when you select the **Print again** function and specify less than the whole job. To work, **CreatePageRanges** needs information about the number of pages in the job. Steps based on the **EnableRepositioning** and **CountPages** step templates can be used for this purpose but must be placed before the **CreatePageRanges** step in the workflow. You only need one of them. If your job is indexed AFP, use **EnableRepositioning**. Otherwise, use **CountPages**. If your jobs are neither AFP nor PDF, do not use any of the three steps.

Step to keep related child jobs together

In some cases, your original job may end up as several child jobs that you want to keep together at critical points in the workflow such as printing. Place a **WaitForRelatedJobs** step before the step that needs all the child jobs together. The **WaitForRelatedJobs** step stops processing until all the child jobs reach that point in the workflow.

Step templates that cannot be copied or deleted

Some step templates, such as **PrintJobs** and **RemoveJobs**, are protected by the system. They cannot be copied or deleted. Although you might want to set the **Requested printer** property value in the **PrintJobs** step template to one type of printer and then copy the **PrintJobs** step template and set the value in the copy to another type of printer, you cannot do that. Use two steps based on the **AssignJobValues** step template to set different property values and pass them to the **PrintJobs** step in the workflow.

Step for notification of jobs that stop in a conditional workflow

If you want to write a message to the job log when a job stops in a step because the conditional processing in a workflow is not designed correctly, add a step based on the **FailWithMessage** step template as the last conditional branch of a step. When a job arrives at the **FailWithMessage** step, RICOH ProcessDirector writes the message that you specify with the **FailWithMessage** step.

If you do not have a **FailWithMessage** step and a job does not meet any of the conditions to go to another step, the job stays in the step in a **No matching connector** state.

Steps available to the Process again function

Each step in a workflow has a **Step restart type** property. The default value is **General**. If a step has any **Step restart type** property value except **None**, you can choose the step when you use the **Process again** function on a job. RICOH ProcessDirector saves the input print file to each step at which you can restart a job. If you want to reduce the number of copies of large files that you keep in the system, set the **Step restart type** property value to **None** on some steps. Operators can still process jobs again, but they might have to restart the job at an earlier step in the workflow.

Note:

- Only steps that have been run for a job can be processed again. Depending on the step and attributes, a job that is processed again might take a different path through the workflow.
- If you edit a workflow with active jobs in it, you must start over at the beginning of the workflow to restart the job.

Steps available to the Print again function

We recommend setting the **Step restart type** property value to **Print** on the **CreatePageRanges** step. When an operator uses the **Print again** function for a job, RICOH ProcessDirector starts the reprinting process at the first step in the workflow with a **Step restart type** property value of **Print**. If you do not set the **Step restart type** property value on at least one step to **Print**, you cannot use **Print again**. RICOH ProcessDirector does not set the **Step restart type** property value to **Print** by default.

Steps available to the Override error function

If you use a step that puts a job in error, you can use the **Override error** function to move the job out of the error state manually. Set the value of the **Allow error override** property to **Yes**. For example, the **VerifyPrintedSheetCount** step puts a job in error if the count does not match. When the **Allow error override** property is set to **Yes**, an operator can force a job to continue through the workflow even though the printed sheet count has not been verified.

Additional information on step templates

Several step templates have relationships to other step templates. Each step template has a reference topic in the Supplied step templates section of the information center. See the usage notes in those topics to understand the relationships before using the step templates in a workflow.

Parent topic: [Preparing to use workflows](#)