

Automation Engine 24

Jobs

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Contents

1. Job Basics.....	4
1.1. The Job Concept.....	4
1.2. Types of Jobs.....	5
1.3. The Jobs Views.....	6
1.3.1. General Job Views.....	6
1.3.2. Job View Filters.....	8
1.3.3. Job Specific View.....	10
1.4. The Job Menu.....	11
2. Creating a Job.....	13
3. Job Setup Parameters.....	15
3.1. Job tab.....	15
3.2. Customer tab.....	18
3.3. Inks tab.....	18
3.4. Parameters tab.....	20
3.4.1. Creating and Modifying a Custom Job Parameter.....	20
3.4.2. Loading Job Parameters from an XML File.....	21
3.4.3. FlexRip/Proof Job Parameters.....	22
3.5. Barcodes tab.....	24
3.6. Step & Repeat tab.....	27
3.7. Categorization tab.....	28
3.8. Advanced tab.....	29
3.9. Sharing tab.....	29
3.10. Automation tab (Page workflow).....	30
3.11. Page Assignment tab (Page workflow).....	30
3.12. Imposition tab (Page workflow).....	31
4. About Job Folder Location.....	32
4.1. General Note on Data Structure.....	32
4.2. FAQs on Job Folder Location.....	33
4.3. Good Practices regarding Job Folder Location.....	34
5. Uploading Files to Jobs.....	36
6. Milestones: Tracking Job Status.....	37
6.1. Concept.....	37
6.2. The Milestones View.....	38
6.2.1. In Job Overview Mode.....	38
6.2.2. In Job Mode.....	40
6.3. Adding Milestones to a Job.....	41


- 6.4. Manage (Custom) Milestones..... 42
- 6.5. Working with Milestone Actions..... 44
- 6.6. Using Milestone Statuses to Filter Jobs..... 46
- 6.7. Using Milestones in Workflows: the Manage Milestone Task..... 46
- 6.8. Informing Other Systems of the Milestones Statuses..... 49
- 7. About Removing Jobs..... 50**
- 8. Tasks you can Launch on Jobs..... 53**
 - 8.1. Task 'Relocate Job'..... 53
 - 8.2. Task 'Archive Job'..... 55
 - 8.3. Task 'Restore Job'..... 57
 - 8.4. Task 'Check Job and Product Parameters'..... 59
 - 8.5. Task 'Check Job Parameters (Classic)'..... 60
 - 8.6. Task 'Remove Job'..... 62
 - 8.7. Task 'Change Location of Jobs'..... 63
- 9. Automated Creation of Jobs..... 64**

1. Job Basics

1.1. The Job Concept

What is an Automation Engine Job?

An Automation Engine Job represents an amount of work to be done for a certain order in your business system. This can be a classic order management system but it could also come from a web application that needs Automation Engine to execute some prepress tasks.

A Job is an entry in the Automation Engine Jobs database and has a unique name. In the Pilot, Jobs are represented by this blue folder icon .

In Automation Engine, a Job consists of 2 things:

- **Data:** Files and folders, stored under the Job's **Job Folder**, in a Container.
- **Metadata:** The parameters of that job order, usually how the order management system describes this job. They can be general parameters like the job's name, order ID, customer and due date but can also be parameters describing what to do with the input files to get to the targeted result.

Jobs can be created manually by an Automation Engine user or automatically via some integration with an external system.

A Job represents Work In Progress (WIP). This means that you should remove Jobs that are 'done'. Removing a Job from the Automation Engine Jobs database does not mean that you have to delete the related data files.



Note: AE SaaS users can inactivate old Jobs by moving them to Esko Cloud. Learn more in the chapter on [AE SaaS](#).

Most Automation is based on Jobs

A lot of the automation that Automation Engine brings comes from the fact that tasks can automatically use parameters from their Job context. Job parameters automatically become SmartNames and the (workflow) task tickets can use those SmartNames to pick up their values.



Note: Customers that do not use Jobs at all find a similar level of automation by using **Workflow Parameters**. Learn more in [Using Workflow Parameters](#).

Launching tasks on Jobs

Jobs can be managed manually in the Pilot, but several actions are also possible by launching tasks.

- The [Create Job task](#) task allows to create and modify Jobs.
- The [Check Job Parameters \(Classic\)](#) task allows to check and correct barcode and ink parameters used in designs.

- The [Archive Job](#) task and the [Restore Job](#) task allow to remove Jobs, store their data on a different network place and, if needed later, restore them back, including their metadata.
- The [Relocate Job](#) task allows to move a Job's Job Folder to a different place. For example to another Container that has more disk space.

Learn more about these tasks in [Tasks you can Launch on Jobs](#) on page 53.

Like all tasks, these tasks can also be triggered by an external system. Learn more in [Integrating with External Systems](#).

1.2. Types of Jobs

Conceptually, we can distinguish several types of Automation Engine Jobs. This categorisation usually depends on these factors:

- What type of site are you? Does your company only do prepress or do you also produce? And if you produce, do you also re-produce items that you produced before?
- Is your Automation Engine closely integrated with your order management system? If it is, then Automation Engine best follows a similar process logic as in that system. Terms like jobs, orders, products, items, milestones etc. will need to have the same meaning.

We distinguish 3 types of Jobs:



Attention: The categorization of these job types does not appear in the user interface of Automation Engine. Their names are only used here to illustrate different ways of working with the tools Jobs and Products. Learn more about Products in the chapter [Products](#).

Type 1: A Prepress Job

The goal of a Prepress Job is to make a single one-up design print-ready. Typical steps are preflight, making print-ready and approval. The result is a file that is ready to be produced.

Some variations:

- The production can then be done in-house (in another Job, under another order number) or the print-ready file can be sent out to a company that produces.
- The resulting file can be registered as an Automation Engine Product.
- A Prepress Job can result in multiple files, but only when they belong to the same product item, for example front and back graphics. They probably also share the same approval cycle.
- At (flexo) prepress houses ('trade-shops'), the result could also be a set of plates.

The Job can be removed when the work is done.

Type 2: A Production Job

A Production Job is a job that uses one or multiple product items for a specific production run. The product items were already approved and print-ready. The goal of this type of job is output.

A Production Job does not contain the one-up's data in its job folder, but links to one or multiple **Products**. The job folder of a Production Job typically only stores the layout files or other data that are unique to this specific production order. The product data stay in their **Product Data Zone**.

The Job can be removed when the work is done. The Products are not removed, they stay 'live' until a next Job links them in for another production run.

Type 3: An All-In-One Job

Some customers have Jobs in which they handle both the prepress work and the output production. The one-up data is stored inside the job folder, not registered as a Product and the workflow continues within this Job with the productions steps (layout, plates, send to press...). Production related data is also kept inside this job folder.

In some cases, when the output is combined with other (already existing) items, this can mean that the one-up data is copied from other (older) jobs into in this job folder.

The Job can be removed when the complete work is done.



Attention: In this chapter, we will describe the use of Jobs *without* the use of the Products tool.

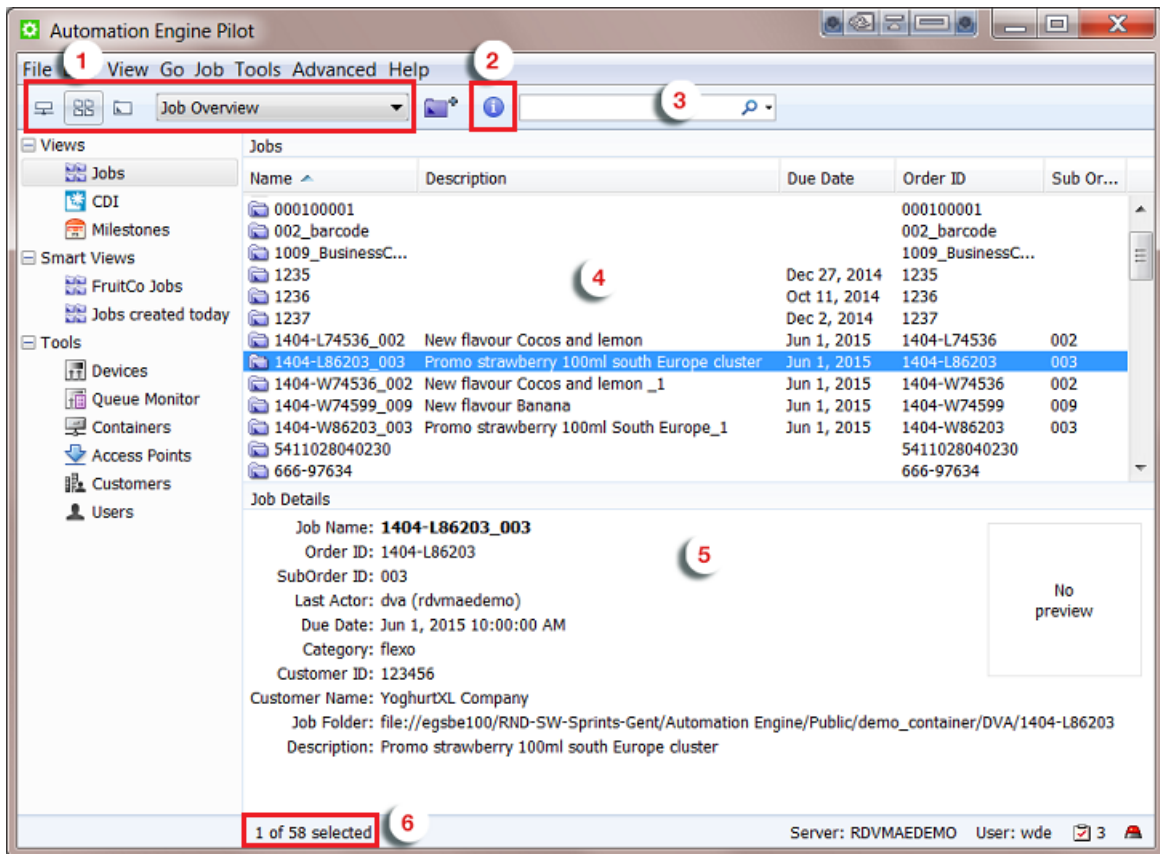
1.3. The Jobs Views



Note: The view '**Inactive Jobs**' is only available for AE SaaS setups. Learn more in [AE SaaS: When your AE is in a Data Center](#).

1.3.1. General Job Views

The Pilot and its Views were introduced in [The Pilot's Main Window](#). We here illustrate some job-related specifics:



1. Type of View.

- The **Containers** view shows the folder structure of your Containers but will show a folder in blue when it is an active Job Folder. Double click any blue folder to select and view that job.
- The **Job Overview** shows all jobs (or a filtered list). You can combine this with *Smart Views*.
- The **Last used Job** view opens the last used job in the *job specific view*.

2. Info. This button opens the **Job Setup** of the selected job. Learn more in *Job Setup Parameters* on page 15.

3. Search input field. Learn more in *Job View Filters* on page 8.

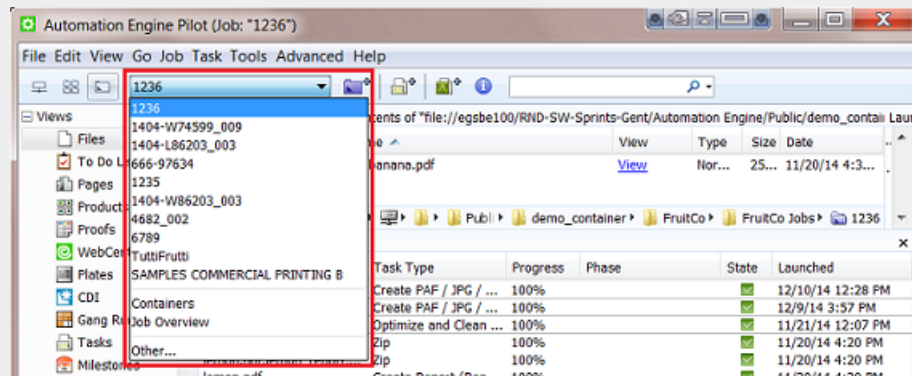
4. Job Overview. Define the columns and their order in **View > Select Columns in 'Jobs'...**

5. Job Details. See some of the job's details. Learn more in *Job Setup Parameters* on page 15.

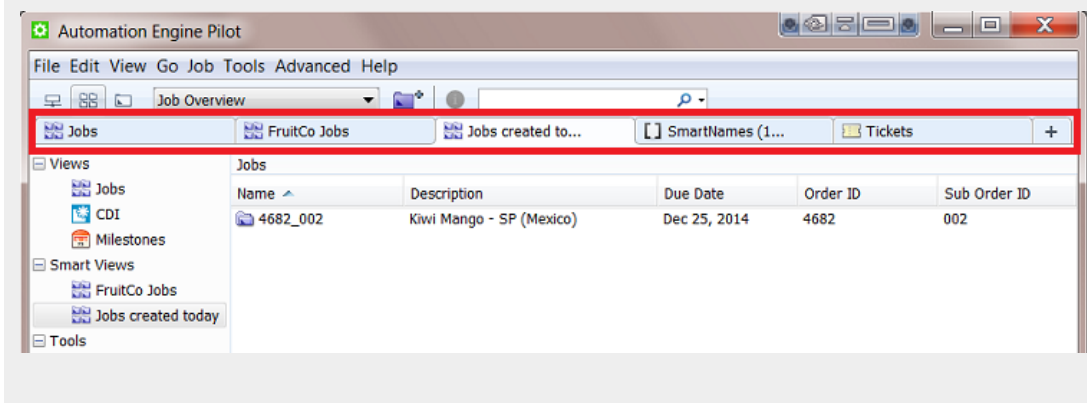
6. Amount of Jobs (selected).



Note: When you open the drop-down list, you can select another job that you recently used. You can set the amount of remembered jobs in **Edit > Preferences > Pilot**.



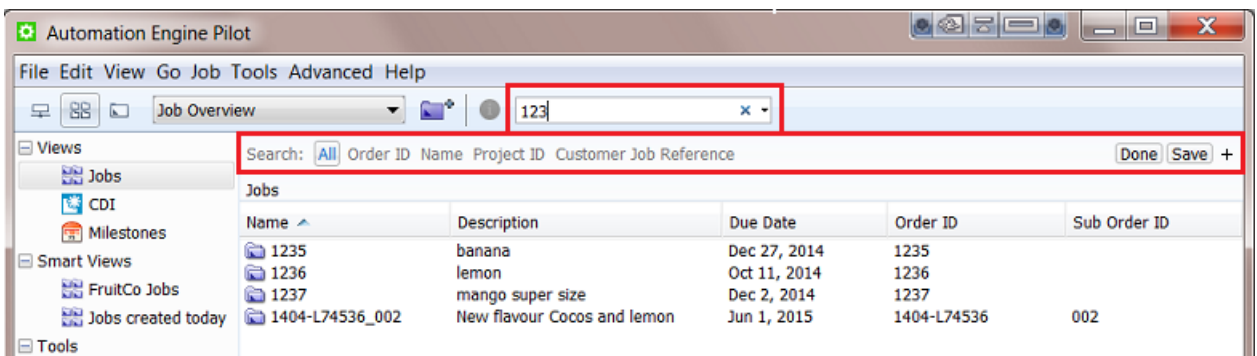
Tip: If you regularly switch between same views, consider using multiple view tabs (**File > New Tab**). For example:



1.3.2. Job View Filters

Basic Searching

When you type in a filter in the **Search** input field, the filter will be looked for in **All** of the default attributes Order ID, Name, Project ID, Customer Job Reference.

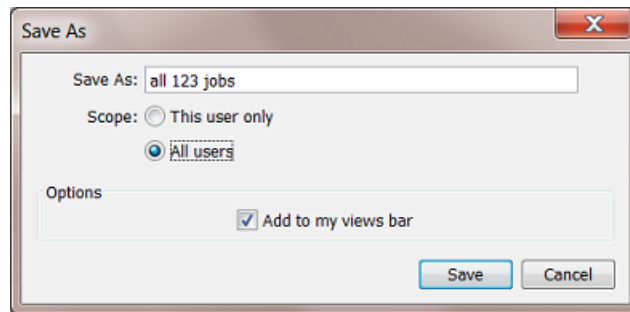




Tip: You can use double quotes to restrict the search. For example:

- FL 123 will list jobs that have both FL and 123 in at least one attribute.
- "FL 123" will only list jobs that have this exact string in at least one attribute.

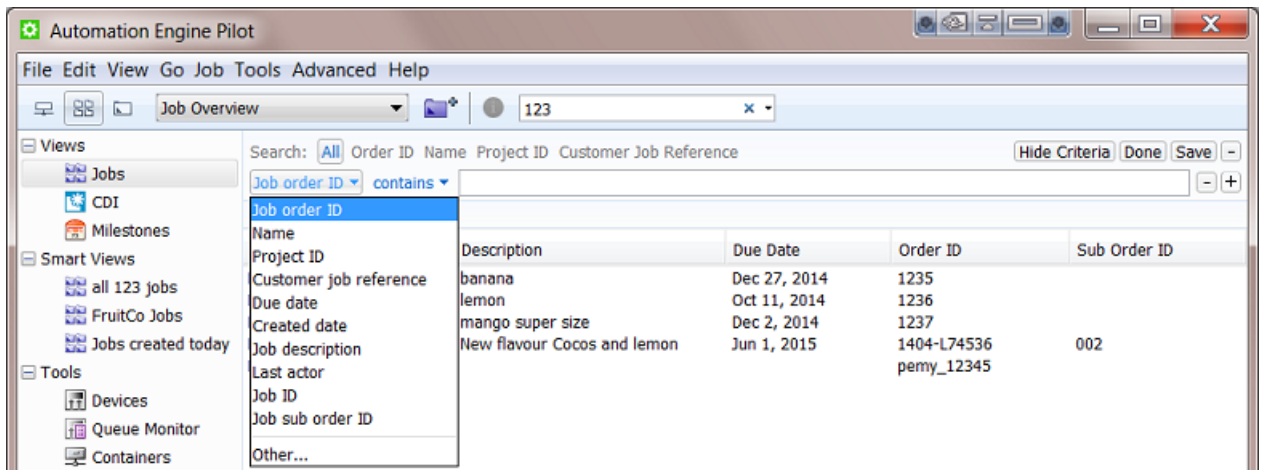
Click **Save** to save this search. Decide if it is for all users or only yourself and if you want to add it to your views bar.



Advanced Searching

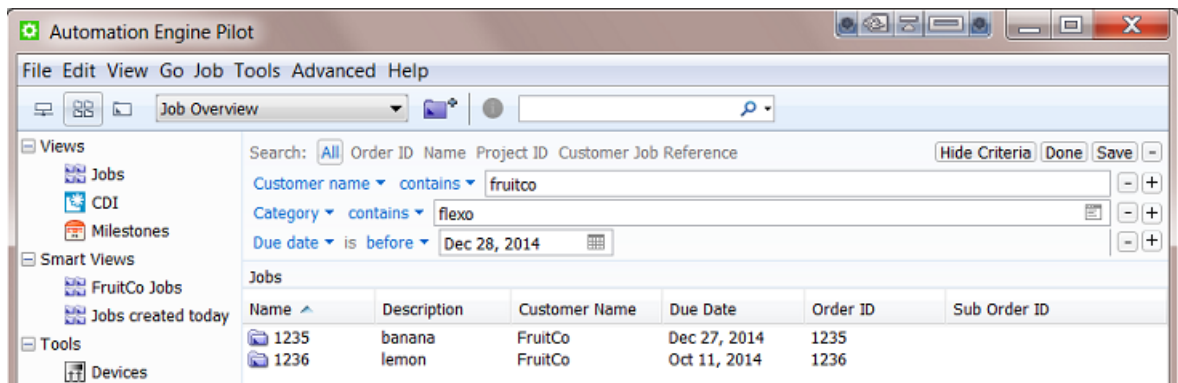
If you want to search in other attributes, or if you want to create advanced search criteria, click on the + button. A new search criterion appears.

See how the attributes drop-down list offers many more attributes:

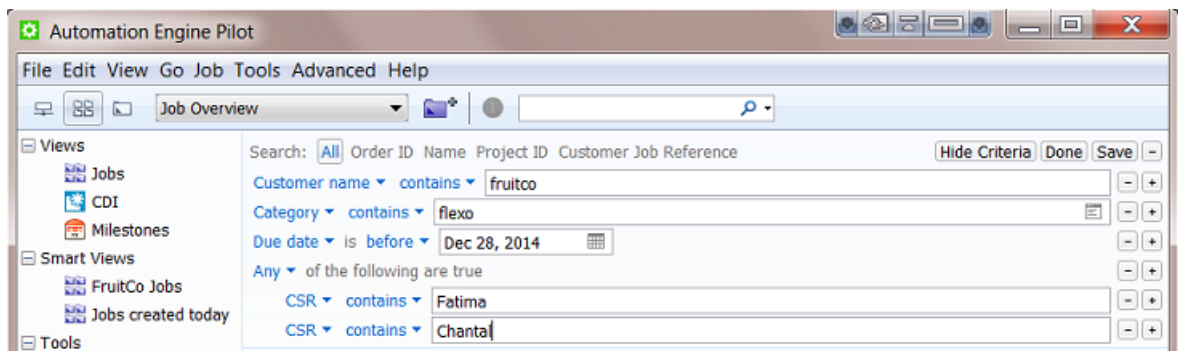


In the drop-down list, select **Other...** to add even more attributes to this list. For example **Customer name** or **Location**.

Use the + button to continue adding search criteria. For example:

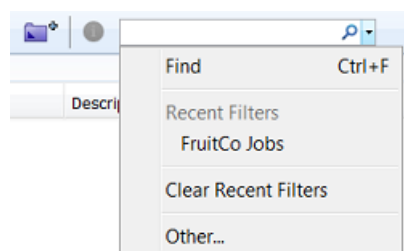


You can even add 'logical operators' to your criterion. Hold **Alt** when clicking on the **+** to start your criterion with **All**, **Any** or **None**. See this example where you are not sure which CSR handles this job order:



Click **Hide Criteria** to hide the lines with the criteria but still have them active.

As shown above, you can save the (set of) search criteria. You can re-use it later as a Smart View or pick it from the drop-down list in the search field:

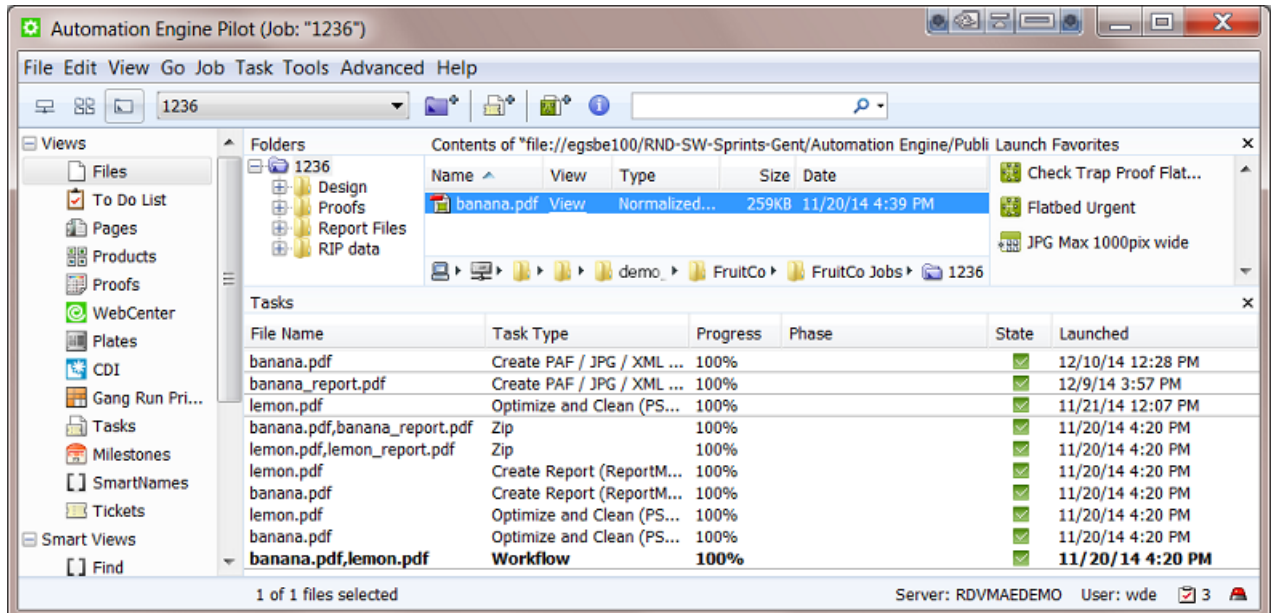


1.3.3. Job Specific View

When you select a job from the drop-down list of last used jobs, or when you double click a blue job folder, the view adapts and focuses on that job.

- The Pilot top bar mentions the name of the selected job.
- The **Last Used Job** drop-down list mentions the name of the job folder.

- The Folders pane shows the (blue) job folder, its subfolders and their files.
- The Tasks pane shows the tasks that were launched in this job context.
- The list of favorite tickets also shows (blue) job tickets (saved for this job only).



All tasks that are launched in this view will run "in this job". Job based SmartNames will now get their values from this job.

1.4. The Job Menu



Note: When no job is selected, some of the menu options are unavailable.

- **New Job....** Learn more in [Creating a Job](#) on page 13.
- **Go to Job.** When a job is selected in a list, use this to go to that job ('open' the job).
- **Job Setup....** This opens the Job Setup dialog of the selected job.
- **Find Job....** This opens a separate dialog to search for jobs. Learn more in [Job View Filters](#) on page 8.
- **Relocate Job.** This moves the job folder of a (live) job. Select the ticket of the **Relocate Job** task. Learn more in [Tasks you can Launch on Jobs](#) on page 53.
- **Remove Job....** This removes the open or selected job(s) from the jobs database. You will be asked to confirm and you can choose to keep the files and folders. Learn more about removing multiple jobs and re-creating them in [About Removing Jobs](#) on page 50.
- **Sharing.... Synchronize Job , Synchronize All Jobs:** These relate to functionality described in the chapter [Sharing to Collaborate with other AE servers](#).


- **Delete View Data....** This deletes all View Data present in the job folder. View data are stored in hidden subfolders of files that were prepared for viewing in [the Automation Engine Viewer](#). You will be asked to confirm. You can choose to **Also unmark subfolders that are marked for Speed for Viewing**. Learn more about this feature and View Data in [Prepare for Viewer Task](#).
- **Manage Job Filters....** This opens a dedicated dialog to manage job filters. Learn more in [Job View Filters](#) on page 8.

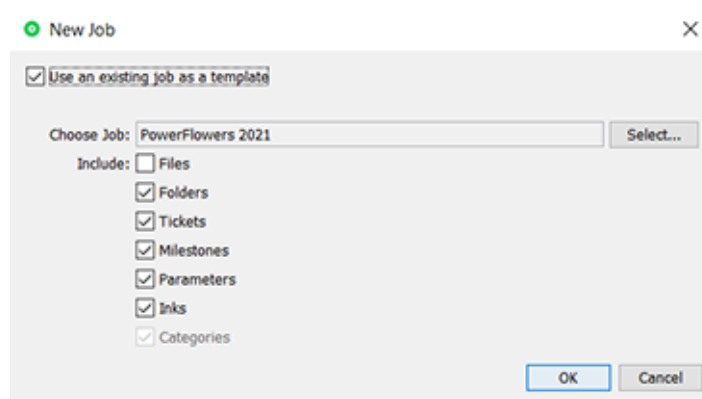
2. Creating a Job

You can create jobs manually or they can be created automatically.

Creating a Job Manually

To create a job, you can first select an existing folder that will become the job folder, or you can have a new job folder created while you create the job. Follow these steps:

1. In the Pilot, choose one of these methods to create a new job:
 - Go to **Job > New Job...**
 - Right-click (on an existing folder) and select **New Job...**
 - click the **Create Job** icon 
 - (Select a folder and) use **Ctrl + Alt + N** (Windows) or **Cmd + Alt + N** (Mac).
2. In the **New Job** dialog, decide if you want to **use an existing job as a template**.
 - If you don't use a template, click **OK** and fill in all the parameters in the next dialog.
 - If you want to use an existing job as a template, select it and decide which type of parameters you want to include from that job in your new job. Then click **OK**.

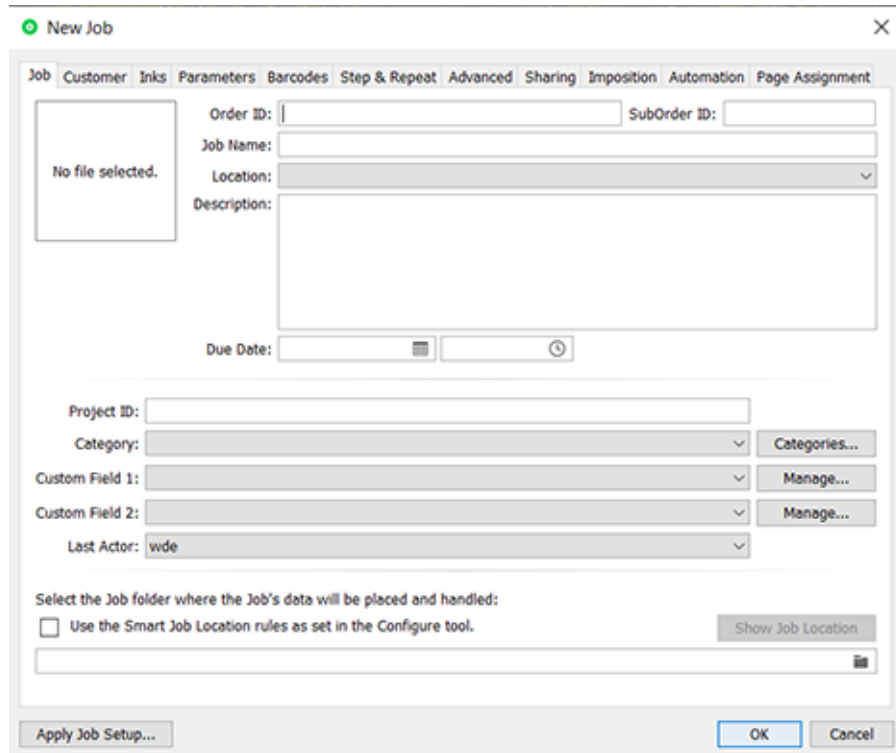


The job you use as a template could be a job that is similar to the new one (for example the 123-1emon job has many same attributes as the 234-banana job). It could also be a job that you specifically created to be used as a template (the typical 'flexibles' job for example).

The status, actions and confirmation dates of the milestones in the template job will not be added to the new job. Their due dates will be relative to the creation date of the new job. For example: you want the new job to also get the milestone 'proof ready' 2 days after it was created.

3. A dialog opens with the job setup. Now you can fill in all the parameters for the job.

If you started from an existing folder or used a template, several parameters will already be filled in.



Learn more in [Job Setup Parameters](#) on page 15.

Creating Jobs Automatically

In most cases, the Automation Engine Job originates in another system. Recreating that job manually in the Pilot is not an efficient way of working. It is strongly advised to integrate Automation Engine with that other system and so have the jobs come in automatically. This will both win you time and reduce errors.

This integration can be based on an incoming file that describes the job or could be a bi-directional link with that external system. In both cases, the [Task 'Create Job'](#) will create the Job in background (probably as part of a workflow task). Such an automated workflow can also update Jobs with new or changed parameters.

Learn more in [Integrating with External Systems](#).

3. Job Setup Parameters

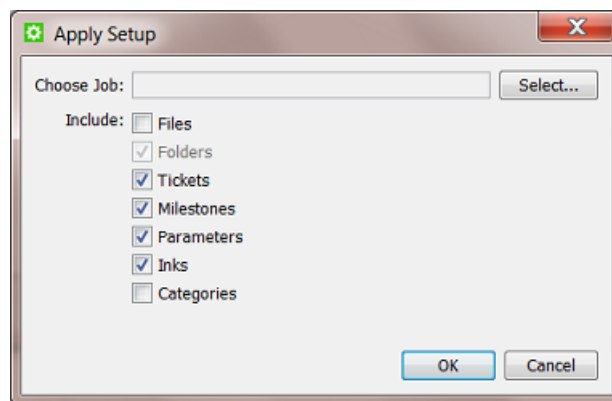
You can fill in the job setup parameters while [creating a job](#), or, when you are in a job context, by going to **Job > Job Setup...**

In an existing job, you can add or modify parameters at any time, except the **Order ID** and **SubOrder ID**. Learn more in [Job tab](#) on page 15.

The parameters are spread over multiple tab sheets. The tab sheets **Automation**, **Page Assignment** and **Imposition** only appear when you are using the module for page workflows.

Most job parameters are automatically offered as Job SmartNames. Learn more in [SmartNames](#).

The button **Apply Job Setup...** allows to copy parameters from other jobs. Select the job and define which type of parameters you want to include from that job.



This is similar to how you can use a template job at the moment of job creation. Learn more in [Creating a Job](#) on page 13.

3.1. Job tab

The **Job** tab contains the main job order information:

- **Thumbnail:** When there is no thumbnail yet, it will automatically be set when one of these tasks finishes successfully in this job context: [Normalize PDF File \(Classic\)](#), [Normalize PostScript / PDF / Illustrator 8.0 File \(Classic\)](#), or [Export ArtPro to Normalized PDF File \(Classic\)](#).

To set the thumbnail manually, right-click the field and select a file (that has a thumbnail embedded).

- **Order ID:** Order management systems typically define a job order by an identification number. This is a mandatory field.



Important: You can not change it once the job is created.

- **SubOrder ID:** A job order often also has a sub number (or text). You can leave this field blank.



Important: You can not change it once the job is created.



Important: An Automation Engine Job needs to be unique. More specifically, **the combination of Order ID and Suborder ID needs to be unique.**

- **Job Name:** This is the name that you see in the job overview mode. This is a mandatory field. If you do not enter a name here, the name will be "OrderID_SubOrderID".



Important: Also the name of the job needs to be unique.



Note: You can change the name of a job after the job was created.



Note: The job name will also be proposed as name for the job folder. Learn more below.

- **Location:** A job's 'location' serves as a data filter for users in My Workspace. Learn more in [Locations](#).
- **Description:** A short text describing the job order. By using its SmartName version, this text can for example also be picked up in a report PDF.
- **Due Date:** The due date and time for this job order. This date is used in job filtering and also in several tasks that allow choosing the **Job Due Date** as one of the choices for the task due date. For example the [Submit to Gang Run \(Classic\)](#) task and the [Publish on WebCenter](#) task.
- **Project ID:** The identification number of the project that this job order belongs to. Project numbers are typically defined by the order management system or any other external system. This parameter can be useful to find jobs that belong to a same project. This parameter can match to a project on WebCenter.
- **Category:** Choose a category from the list. Categories are often used to help you find jobs or to define the route of a workflow. Click the button **Categories...** to add new categories manually or by loading a list from an XML file.

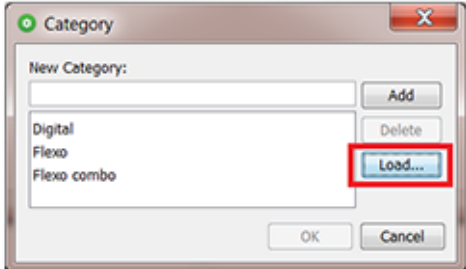


Note: The format of the XML is for this use not specific. Most important to know is that only the values will be loaded to become category names, not the element names. An example:

```

<?xml version="1.0"?>
<List>
  <name1>Flexo</name1>
  <name2>Flexo combo</name2>
  <name3>Digital</name3>
</List>


```



You can add more custom categories. Two are offered in this tab sheet: **Custom Field 1** and **Custom Field 2**. You can set four more in the tab [Categorization](#). You can configure their custom names in **Configure > Jobs > Job Setup**. See an example in the above screenshot.



Tip: In the page about the tab [Categorization](#), you can find a table with matching names of categories, custom fields and their SmartName versions.

- **Last Actor:** The last Automation Engine user that worked with this Job (launched a task, opened a file). This is filled in automatically but you can set it manually too.
- **Job Folder:** Define the path of the job folder for this job. You can choose one of these methods:
 - Browse to an existing folder (somewhere in one of your containers).
 - Browse to the root of where you want to create the new job folder and click . By default, the **Job Name** will proposed as name for the job folder. You can change that if you want to.
 - **Use the Smart Job Location** defined in the Configure tool: When selected, the location and name of the job folder will be calculated based on a job parameter or on the default location for that customer. A preview of the folder's location and name can be asked by clicking the **Show Job Location** button. Learn more in [Smart Job Location](#).



Tip: The **Browse** button can also be used to relocate an existing job folder. When you here change the path of an existing job folder, you will be asked if you want to move or copy the data to the new job folder.

3.2. Customer tab

Customer ID: Click **Select...** to open the **Select Customers** dialog. Choose one or add a new customer. Learn more about creating customers in [Customers](#).

Customer Name and **Customer Description:** These fields will be filled out automatically after selecting a customer.

Customer's Job Reference: This is the term that your customer uses to refer to that job, how they named it (initially). When communicating with your customer, he will appreciate if you mention this name (as well). You can for example add this name as a SmartName to a report PDF or add it to a name of a file that you send him.

Customer Service Representative (CSR): Select or type the name of the person in your sales or service department who manages this customer account.

The **E-mail** address of the CSR that you selected is automatically displayed if it was used before. You can also enter the E-mail address manually.

You can click the **Contact...** button to open an E-mail message with that E-mail address in the **To** field (if an E-mail client is configured).



Tip: All these parameters

- can be used to filter or search for a job.
- can be entered via XML/JDF/JMF. It is strongly advised not to re-enter these admin data manually. Learn more on how this can be done in [Integrating with External Systems](#).
- exist as **System SmartNames**.

3.3. Inks tab

This tab allows to store ink specifications for this job.

Job Setup

Job Customer **Inks** Parameters Bar Codes Step&Repeat Categorization Advanced Automation Page Assignment Imposition

Inks in the following order: Preferred Ink Book: **PANTONE+ Solid Coated**

Ink Name	Ink Book	Ruling	Angle	Dot Shape	Ink Type	Printing Method
Cyan	process	95 lpi	7 °		Normal	Flexo
Magenta	process	95 lpi	37 °		Normal	Flexo
Yellow	process	95 lpi	82 °		Normal	Flexo
Black	process	95 lpi	67 °		Normal	Flexo
PANTONE 123 C	PANTONE+ Solid Coated	95 lpi	7 °		Normal	Flexo
die	designer	95 lpi			Technical	Other
gold	designer	95 lpi			Opaque	Screen

Move Up Move Down

Default values, used when a ruling, angle or dotshape is not specified:
 Ruling: lpi Angle: ° Dotshape:

If there are inks specified in the list, but no default values are set, factory settings will be used for ruling (120 lpi) and angle (45°).

Apply Job Setup... OK Cancel

What you enter here serves as a *minimal* requirement for this job. This means that you can for example only enter the angles for a specific set of ink names and leave all other fields or columns blank.

As with most tab sheets, you can enter this data manually, copy these parameters from another job (see the button **Apply Job Setup...**) or, when using the [Task 'Create Job'](#), get them from an XML file.

Use cases

Job ink parameters can be used in these cases:

- When you import design files, the task [Normalize PostScript / PDF / Illustrator 8.0 File \(Classic\)](#) offers to enforce these job ink parameters in the output file.
- In PackEdge or ArtPro, when you open a file that is located in a job folder, the editor will check if the file's inks match the job ink parameters and show a warning when they don't. You can also use the **Load Job Parameters** feature in the editor's **Inks** dialog to enforce the job ink parameters.
- When you use the task [Check Job Parameters \(Classic\)](#), you can check and or modify the attributes of the inks in the file.
- In page workflows, when you use the **Variant Setup** in the [Imposition tab](#), the job's inks will be used.



Important: When working with ArtPro+ and PDF+ (PDF native) files (where no normalization is done), there is no equivalent for these features.



Note: A job can only have one set of ink parameters.

Preferred Ink Book: When you then type an ink name in the table, Automation Engine first searches this ink in your preferred ink book. For example, if you type 154 as ink name, and your preferred ink book is `Pantone Colors Uncoated`, Automation Engine will automatically suggest the ink `PANTONE 154 Uncoated`.

Printing Method: You can set a printing method per ink. The list shows those defined in the [Configure tool](#).

These are typical examples of how to make use of a **Printing Method**:

- In your **Imaging Engine** (RIP) task for a flexo device, you select only the inks of printing method 'flexo'.
- You make a special ReportMaker PDF that focusses on the 'ink' used for embossing. In your workflow, you use the [Extract Inks \(Classic\)](#) task to select the wanted ink type before you start the ReportMaker (Classic) task.

Some tips on editing the ink list

- To start, click in the empty canvas under the column **Ink Name** and type in an ink name. For example 'C'.
- **Ruling** uses the unit as defined in **Edit > Preferences... > Units**.
- To change all fields in a column with a same value, double click the column header (valid for **Ruling**, **Angle** or **Dot Shape**).
- You can define specify ruling, angle and dot shape per ink name or you can set **Default values** by using the fields at the bottom of the tab sheet to specify them for *all* such fields (when still empty).

3.4. Parameters tab

This tab allows to store two types of job parameters:

- **General** custom job parameters, with a name and value that you decide. They will also appear as a SmartName.
- **FlexRip/Proof tasks** parameters. This is an older technology that allows enforcing job parameters into the FlexRip or FlexProof task tickets. Learn more in [FlexRip/Proof Job Parameters](#) on page 22.



Note: With Imaging Engine, this concept is replaced by the use of SmartNames.

These job parameters can be created in 3 ways:

- Manually. Learn more in [Creating and Modifying a Custom Job Parameter](#) on page 20.
- By loading values from an XML file. Learn more in [Loading Job Parameters from an XML File](#) on page 21.
- By using the **Create Job** task, where you use the (XML) input from an external system. Learn more in [Task 'Create Job'](#).

3.4.1. Creating and Modifying a Custom Job Parameter

Use the buttons **Add...**, **Modify...** and **Remove** to manage your custom parameters manually.

Follow these steps to add a custom job parameter:

1. Click **Add...** to open the **Add Job Parameter** dialog.
2. Choose the **Scope** 'General'. Learn more about the other Scopes in [FlexRip/Proof Job Parameters](#) on page 22.
3. Type in the **Name** and **Value** and click **OK**.

The SmartName version will be created automatically. To easily recognize which SmartNames are job specific, their name starts with [j.p.].

3.4.2. Loading Job Parameters from an XML File

If you have an XML file that contains the custom job parameters, you can create them automatically by loading them into your job setup:

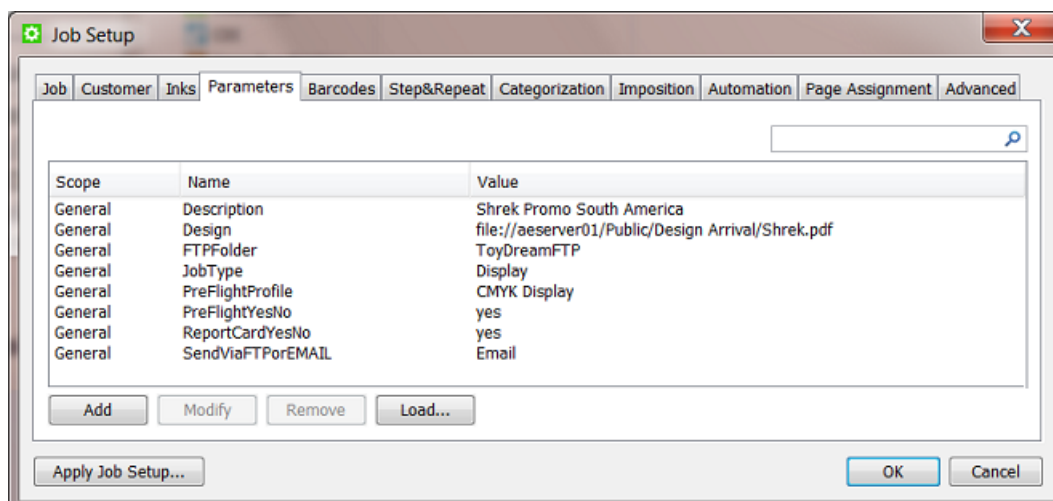
This XML requires this basic structure ; within a root node, a simple list of pairs of elements and their value:

```
<root>
<parameter1>xxx</parameter1>
<parameter2>yyy</parameter2>
</root>
```

An example:

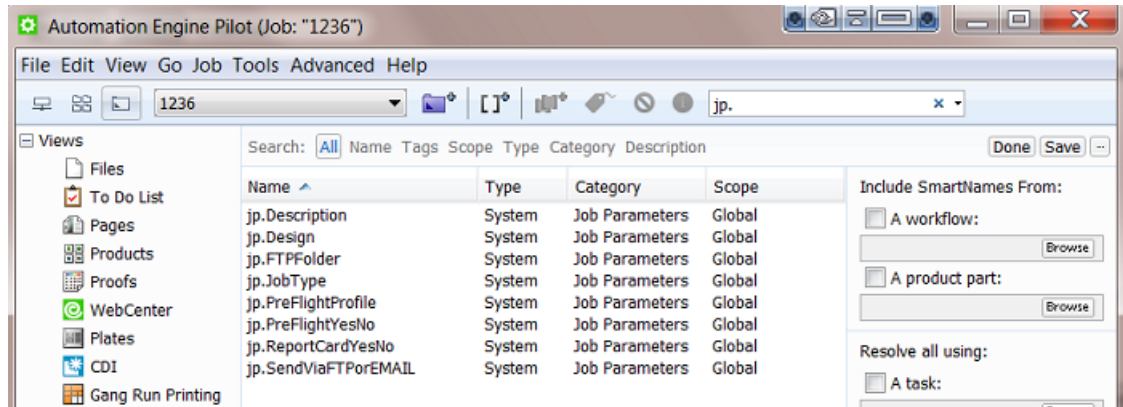
```
<jobparams>
<profile>CMYK</profile>
<proofing>e-mail</proofing>
<reportcard>yes</reportcard>
</jobparams>
```

1. In the Job Setup tab **Parameters**, click **Load...**
 2. In the **Load Job Parameters from XML** dialog, click **Browse** and browse to your XML file.
 3. Click **OK**. You now have a custom parameter for all value pairs the XML contains from the root node. All elements and their values will be imported.
- An example result after loading such an XML file:



Tip: If you have long parameter lists, you can use the search field to help you filter them. The value is checked in Scope, Name and Value.

Job parameters also become SmartNames. See the automatically created SmartNames of these custom job parameters (for this job '1236'):



Learn more about using SmartNames in [SmartNames](#).

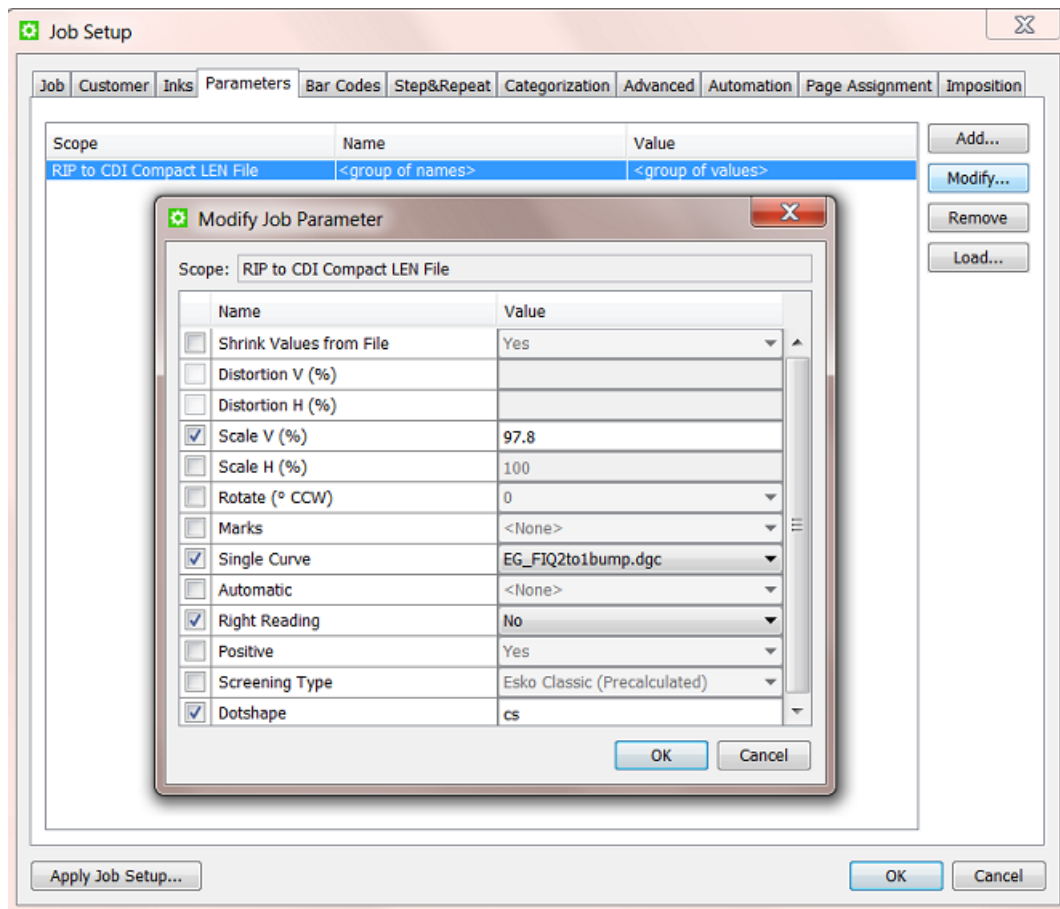
3.4.3. FlexRip/Proof Job Parameters



Note: With Imaging Engine, this concept is replaced by the use of SmartNames.


Creating Job Parameters for FlexRip or FlexProof

1. Click **Add...** to open the **Add Job Parameter** dialog.
2. Choose the **Scope** of a specific task type of FlexRip or FlexProof.
3. Check the parameters that you want to enforce during RIP'ing and define their value. For example:

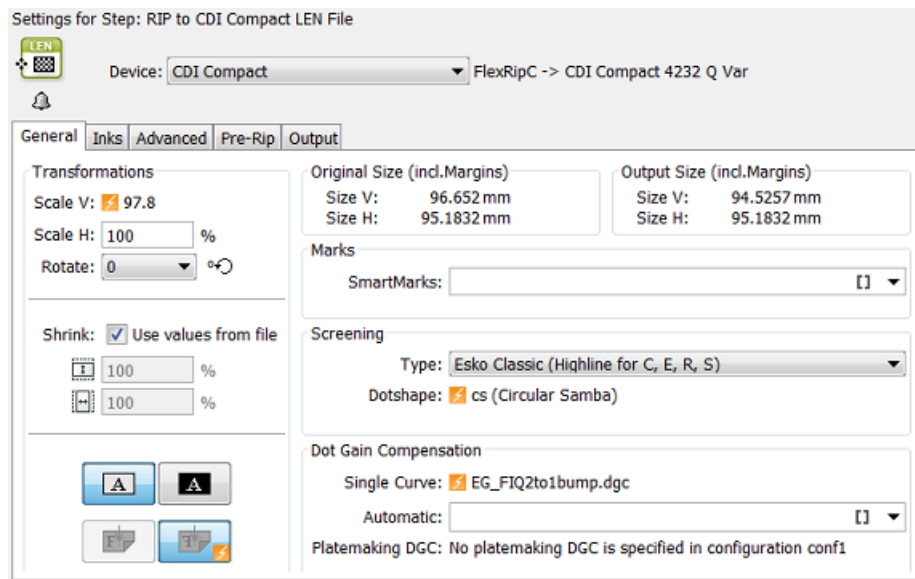


Click **OK**. The job parameters for this type of FlexRip/Proof will be added as one line.

Using Job Parameters for FlexRip or FlexProof

When you now select a file in that job and open a task ticket for that particular FlexRip/Proof, you will see fields that are marked by an orange icon . These are fields that are overruled by the job parameters.

For example:



3.5. Barcodes tab

Concept

In the **Barcodes** tab you can create parameters for multiple barcodes of different types.



Tip: One file can for example have a retail barcode and also a general purpose barcode that will be used for a filling station.


As with most tab sheets, you can enter this data manually or get them from an XML file when using the [Task 'Create Job'](#).



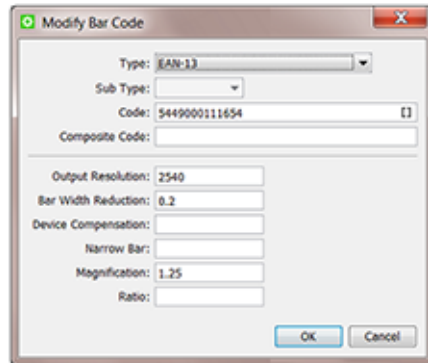
Tip: When selecting a barcode, the specified parameters are shown in the **Details** area.

Enforcing barcode parameters

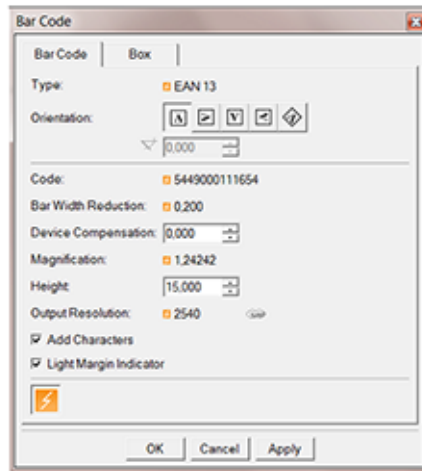
Similar to the [Inks tab](#) on page 18, these parameters can be used to enforce their parameters into the barcodes of the job files that you opened in PackEdge or ArtPro. Also here, the [Check Job Parameter task](#) can be used to check or correct the barcodes in the files versus the parameters you specify here.

See this example where the job parameters are enforced  into the barcode in PackEdge:

In AE Job Setup



In PackEdge



See this example where the job parameters are enforced into the barcode in ArtPro+:

2. ArtPro+
Open file from this AE Job
Create Barcode

1. Automation Engine
Job Setup

We now briefly describe the available parameters.

Learn more details in the [documentation of your Esko editor](#) (DeskPack, ArtPro+ or classic editor PackEdge).

Type

Selecting a type of barcode is mandatory. It also defines the other fields and disables those that are not relevant for this type.



Note: When you define more than one barcode, the checking mechanism with the editors and the [Check Job Parameter \(Classic\)](#) task will recognize the type of barcode and check accordingly.

Sub Type

Some barcode types offer sub types. For example a **Data matrix** code.

Symbol Size

Some barcode types allow to define a symbol size. For example **QR** and **Data matrix** codes.

This size defines the amount of cells in a barcode. The symbol size will automatically increase when entering too much data for the current symbol size.

Code

The validity of the code is not checked here in this dialog. This is done in the editors.

Composite Code

A composite code is a 2D symbol placed on top of a GS1 barcode, that encodes extra information (batch number, expiration date, ...).

Output Resolution

Enter the resolution (in ppi) that you will use to RIP this barcode. This parameter helps preventing unwanted levels of rounding in the bar width.

Bar Width Reduction (BWR)

Use this parameter to adjust the width of the barcode bars, in order to compensate for ink bleeding when printing on your substrate.

Your printer or customer will usually provide you with the value to use. For example if your printer tells you that the line width will increase by 0.01 mm, you should use a **Bar Width Reduction** value of 0.01 mm.



Important: This field expects a value in millimeters (mm).



Important: If you use a comma as a decimal symbol, it will be replaced by a dot.



Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Device Compensation

Use this if your printer gave you a separate device bleed value. This parameter adjusts the bar's width to compensate for bleed caused by the plate or film making process.



Important: This field expects a value in millimeters (mm).



Note: If you use both a **Bar Width Reduction** and a **Device Compensation** value, the software will add them together to adjust the bar's width.



Tip: You can enter a negative value if you want to print thicker and not thinner bars.

Narrow Bar

This parameter determines the width of the narrowest bar of your barcode (and affects the width of your barcode proportionally). For GS1 barcodes, this affects the size (height and width) of your barcode proportionally.

Cell Size

Some barcode types allow to define the size of a single black or white square. size. For example the types **Aztec** and various **QR** and **Data matrix** codes.

Magnification

Use this parameter to increase or decrease the barcode size proportionally. For example: enter 1.25 for a magnification of 125%.



Important: The value needs to be between 80% and 200%.

Ratio

The **Ratio** is the factor between the width of the narrowest bar and the width of the widest bar in your barcode. For example, enter 3 if you want your widest bar to be three times as wide as your narrowest bar.

3.6. Step & Repeat tab

Specific JDF

This tab with Step & Repeat parameters is only useful in a workflow where you receive a JDF from an external system that describes the Step & Repeat via "JDF for Stripping for Packaging". Such a JDF will not only create the job but also store those specific Step & Repeat parameters in this tab.

These parameters also become job parameter SmartNames and can so be picked up by Step & Repeat tasks. They will appear as `[jp.steprepeat.]`.



Note: The task [Import JDF Step & Repeat \(Classic\)](#) uses the JDF itself as input. In that case the values shown here are just informational and the task does not use SmartNames.

Also via XML?

Step & Repeat specifications can also come from external systems via an XML file or database queries or HTTP calls. In such cases, these parameters do **not** end up in this tab sheet and they also become other types of SmartNames. Learn more about this in [Integrating with External Systems](#).

Manual entry

You can also enter values manually here but that usage is not different than when you would add them in the custom **Parameters** tab sheet.

3.7. Categorization tab



Attention: This tab only appears if you created custom categories in the Configure tool (learn more below).

The **Categorization** tab allows you to manage up to **four extra** custom Job Categories (you already have three category fields in the **Job** tab).

You can use these custom categories as extra ways to search jobs. And you can also use their SmartNames in task tickets.

Creating and Modifying a Custom Category

Go to **Tools > Configure > Jobs > Job Setup** and type the name of custom category.

Managing their Values

To manage the list of values you can choose for each category, click the corresponding **Manage...** button, and add or remove items to the list. In this dialog, you can also load lists of items from an XML file by clicking **Load...**

Overview of Custom Categories and their SmartNames

Because there is already 1 *standard Job Category*, the number of your custom categories will be 1 higher. See this overview:

Table: Names of custom Categories

Name of Job setup tab	Name of category in Job setup	Custom field number	Name of SmartName
Job	"Category"	/	Job Category
Job	name you gave	custom field 1	Job Category 2
Job	name you gave	custom field 2	Job Category 3
Categorization	name you gave	custom field 3	Job Category 4
Categorization	name you gave	custom field 4	Job Category 5
Categorization	name you gave	custom field 5	Job Category 6
Categorization	name you gave	custom field 6	Job Category 7

3.8. Advanced tab

This tab sheet offers a feature to automatically start a task or workflow when you create or update a job that uses this job as a template.



Important: This is an old feature. Learn below about alternative ways to reach the same goal.

If you wish to use this, check the toggle and select the **Task Type** and **Ticket Name**.

When is a Job updated?

A job is updated in these cases:

- When the JDF that created the job is sent again to Automation Engine. Learn more about JDF in [Integrating with External Systems](#).
- When a **Create Job** task is launched again on the same job.

When is this feature useful?

This feature can be useful when you have jobs that are created automatically via JDF without the automatic launching of tasks at that moment. Your JDF can then specify that a job needs to be used as a template. And that template job can have this parameter active to launch a task.

Alternative methods

There are other ways to launch a workflow in a job that was just created or updated.

The task [Task 'Create Job'](#)

- can be part of a workflow, so right after this step where the job is created your workflow continues with more steps.
- can be started automatically by an Access Point. Learn more in [Access Points](#).
- also has a tab sheet with this same feature. Learn more in [Task 'Create Job'](#).

3.9. Sharing tab

This tab shows information about the sharing of files in this job with other Automation Engine servers within your company.

Learn more in the chapter [Sharing to Collaborate with other AE servers](#).

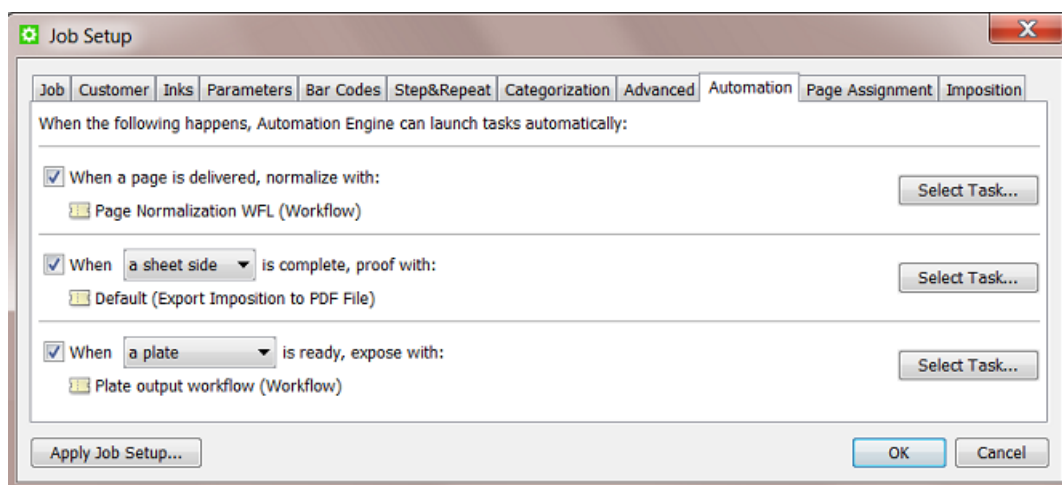
3.10. Automation tab (Page workflow)



Note: This tab is only offered in page workflows. Learn about these classic tools in the dedicated AE Commercial Print manual available for [Automation Engine version 18.1](#) or older.

The **Automation** tab offers tools to automate your page workflow. When a certain job related event happens, a specific task can be launched automatically, which then can lead to a next status in the workflow.

You can do this for **Normalization**, **Proofing** and **Exposing**.



- Choose how you want to normalize the file **when a page is delivered**. Select a single task ticket or a workflow ticket.
- Choose when you want to launch a **proofing** output task: when **a sheet side**, **a variant** or **an imposition** is complete. Select a task ticket.
- Choose when to **expose** your job: when **a plate**, **a separation set** or **an imposition** is ready (complete and approved if required). Select a single task ticket or a workflow ticket.

3.11. Page Assignment tab (Page workflow)



Note: This tab is only offered in page workflows. Learn about these classic tools in the dedicated AE Commercial Print manual available for [Automation Engine version 18.1](#) or older.

This tab offers settings to automate the assigning of incoming PDF files to Page slots.

3.12. Imposition tab (Page workflow)



Note: This tab is only offered in page workflows. Learn about these classic tools in the dedicated AE Commercial Print manual available for [Automation Engine version 18.1](#) or older.

- **Variant Setup**

When working with variants, this allows you to select the correct use case and variant separation from the list. Learn more in the AE Commercial Print manual, in 'Working with Plates' # 'Variant Setup'.

- **Output prerequisites**

These settings allow you to decide when a separation can be considered as being ready.

- **When no page is rejected:** This is called "implicit approval". The plate status in the **Plates View** will indicate 'ready for ripping' if all the pages of the plate are assigned and if no page is rejected. When a page for that plate is unassigned or rejected, the output task on a plate will fail.
- **When all pages are approved:** This is called "explicit approval", it is more strict than "implicit approval". The plate status in the **Plates View** will only indicate 'ready for ripping' if all the pages of the plate are approved. When not all the pages on that plate are approved, the output task on a plate will fail.

Learn more in the page on 'Task status information'.

Learn more about the Plates tool in the section 'Working with Plates' of the above mentioned user manual.

4. About Job Folder Location

4.1. General Note on Data Structure

Automation Engine allows you to choose your own data structure

As mentioned in the page [Containers \(an Introduction\)](#), Automation Engine will work with the data structure you have.



Note: In an AE SaaS setup, the AE Containers are not inside your LAN network. Learn more in the chapter [AE SaaS: When your AE is in a Data Center](#).

This freedom also brings requests for advice on what data structure would best serve your specific needs. The more you learn about the available tools (Jobs, Products, SmartNames, Workflow Parameters, etc.) the more you will learn what is (no longer) important in that data structure.

Historical View on Data Structure

Before there were workflow automation servers like Automation Engine, prepress managers built up their own logic in the prepress data structure. Prepress operators browsed many folders in the network to open a file in their workstation editor and then saved it again, often with a changed name.

Very typical was the habit to write information about the files into both their name and their location. For example: a final version was named "name_final.pdf" or written in a folder "Final". Or a file was named "lemon_c_m_y_k_pms123.pdf". Or when the job was ready to be archived they moved the whole job folder to a share "For Archive".

Then came workflow automation servers like Automation Engine where the information is (automatically) stored in database fields. And the user can see information via a dedicated interface in an AE client. You can for example list all jobs of the category "NON-FOOD" or you can use the "i" button to see the PDF's inks (XMP metadata).

Does this mean that the data structure and the file naming is less important than before? No, actually the opposite is true.

Why is it still Advised to have a Logical Data Structure?

There are two main reasons why a logical data structure is more important than ever:

- **For the people that do not use the Pilot or a browser workspace.**

Are there non-prepress users looking directly at your prepress data structure? If those people are not using an AE client, they will still want to get information from the location or from the name (like in the 'old days').



Note: We advise to check if those colleagues will not prefer to use an AE client and benefit from that information-rich view. Remember you can use User Access Rights to limit their access. And they could even benefit from using the **Viewer**.

- **For external systems** that look at, use or deliver the data.

What other systems are looking at your data structure or at files that come from there? What systems send you data into that data structure?

The integration of Automation Engine with many other systems is the main reason that your data more than ever needs to be well structured and named. Learn more in [Integrating with External Systems](#).

For these reasons we advise to:

- Investigate thoroughly what data structure will serve your needs and those of the system(s) you (will) integrate with. This includes avoiding copied data.
- Use all the tools that can automate the creation of those folders and file names (templates, SmartNames, Smart Job Location etc.).

4.2. FAQs on Job Folder Location

Can I Move a Job Folder?

As explained in [The Job Concept](#) on page 4, a job is a temporary object. But even during its short life time, it can happen that you want to move the physical data to another place in the network.

In this case, it is very important that you use one of the tools in Automation Engine to do this. If you use the OS tools (Windows Explorer, Mac Finder etc.), Automation Engine will not be aware of this move and its database field for the job folder will still refer to the old path.

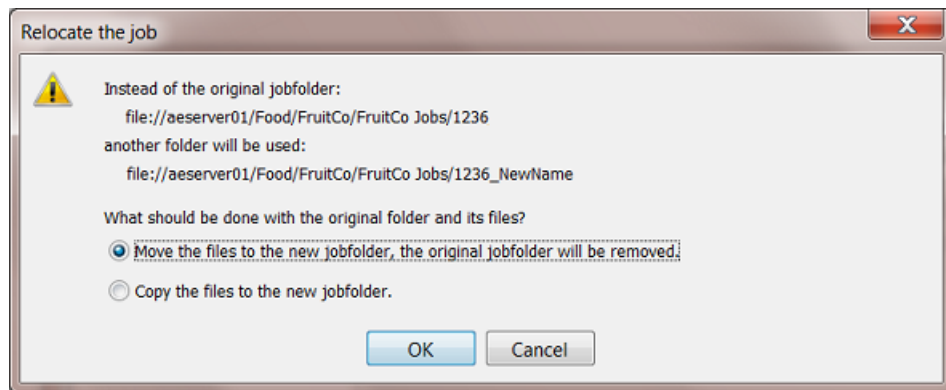
You can relocate a job folder

- manually, one by one. By using the **browse** button in the [Job tab](#) on page 15 of the job setup. You will have the choice to move or copy the folder.
- by using the [Relocate Job](#) task. You can launch this task on multiple jobs (for example on a smart filtered selection).

Can I Rename a Job Folder?

To rename a job folder you can use the same manual relocation tool as mentioned above.

1. In the **Job** tab of the job setup, in the field with the job folder path, change the name of the folder.
2. Click **OK**. The resulting dialog offers a choice on what to do with the original folder and files.



3. Make your choice and click **OK**.

What happens when I Remove a Job Folder from a live Job ?

When Automation Engine can not access the job folder of a job that you are trying to open or use, a warning dialog will mention "**Could not retrieve the list of files**". The Pilot will show the job folder in yellow.

This is the same warning that you will get when there is network problem and Automation Engine can for example not access a complete **Container**.

When Automation Engine can again access that folder again, with the place and name it was expecting, the job folder will again be shown in blue and ready for use.

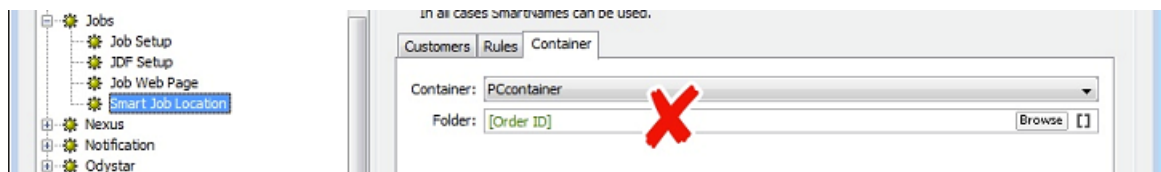


Note: In the Configure tool, there is a feature that allows to remove all "dangling jobs" (jobs that have no more link to their job folder). Learn more [here](#).

4.3. Good Practices regarding Job Folder Location

Creating all your job folders under 1 same root folder can result in a slow Automation Engine Pilot and even slow tasks. We advise not to do this.

Here is an example setup that certainly causes too many subfolders in one same folder:



To keep your system healthy, it is good practice to use subfolders in your data structure.

Here is some advise on what logic you could use to decide that data structure:

About using Subfolders per Customer Name

We do not advise this, mainly because customers tend to change their names. It looks like a good idea at first, but Esko has seen many customers migrating away from this structure.

About using Subfolders per Customer ID

We do not advise this. It is true that using a customer ID is more stable, but it also has some disadvantages:

- That customer ID number is often meaningless to the Esko users.
- Because legal regulations may require your company to keep track of order history, it is possible that old customers may not be deleted in the business system. That is why, when your customer changes his name, some business systems then change the ID anyway.
- Another reason to not base your folders on customer ID is that customer companies also merge.

These reasons show that we again face the same issues as when we use the customer's name.

About Using Subfolders per Type of Job Order

We do advise to base a data structure on types of jobs.

If you have prepress orders (creating and getting a one-up print ready) and production orders (outputting existing approved data), then structure them in separate folders or even different **Containers**.

Or you can use the product or production type: labels, carton, digital, flexo, offset etc. A typical way to set this up is by using the SmartName of a Job (custom) Category.

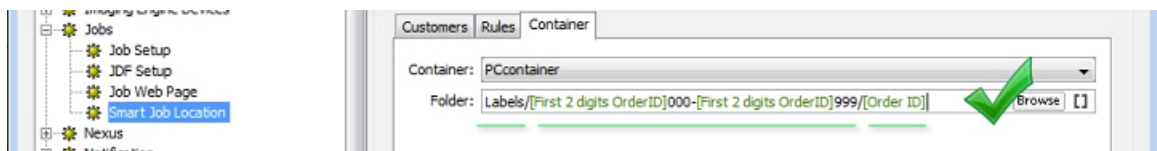
About Using Subfolders per Order Range

We do advise to create a data structure where you split folders based on the job's Order ID.

For example: all jobs in the 1000 range in one folder, all jobs in the 2000 range in the next folder, etc. This is a straight forward structure that will not allow more than 1000 subfolders in one folder. Use [String Extract SmartNames](#) to set this up.

This is considered to be the best practice.

For example:



Note: All these principles also apply to folders where you store Products (Product Data Zone). Learn more in the dedicated chapter on [Products](#).

5. Uploading Files to Jobs

There are many ways to upload files to a job folder's folder structure:

- Manually:
 - using the Pilot
 - drag and drop files or folders from outside the Pilot onto a job (sub)folder in the Pilot. Or use copy/paste shortcuts.
 - right-click a job (sub)folder and choose **Upload Files....** Learn more [here](#).
 - right-click a job (sub)folder and choose **Upload Files from FTP Site....** Learn more [here](#).
 - using My Workspace (browser client). Learn more in [Workspace 'My Workspace'](#).
 - using Shuttle, as start of a workflow in this job. Learn more in [Working with Shuttle](#).
- Automatically:
 - from [Access Points](#). Any of the 5 types of Access Points can upload data to a job (sub)folder (and launch a workflow). The Folder Access Point can also be a subfolder of the job folder. Learn more in [Integrating with External Systems](#).
 - using the [Task 'Download WebCenter Document'](#). When your Automation Engine is connected to a WebCenter, this task logs on to WebCenter and downloads documents from a specified WebCenter project. Learn more in [Integrating with WebCenter](#).
 - from WebCenter,
 - by synchronizing the WebCenter project with an Automation Engine job. When a WebCenter project has a **workflow connection** with an Automation Engine job, documents can be copied to that job when synchronizing. Set this up in the **Configure** page of the WebCenter project.
 - by using WebCenter's **Sync Workflow** task in a WebCenter workflow. Learn more in the [WebCenter documentation](#).

6. Milestones: Tracking Job Status

6.1. Concept

Milestones represent important moments in the life of an Automation Engine job. Each job has at least one Milestone: the moment it was created. You can add Milestones, predefined ones or custom ones. Each Milestone has a due date and several other attributes (see below). The goal of a Milestone is that it gets confirmed.



Note: The **Job Due Date** that you set in the job setup is not automatically created as a Milestone.

A Milestone has these attributes:

- a **Name**. For example "Approved".
- a **Due Date**. This is the time that this Milestone is expected to be confirmed. It could represent when deliverables are expected (plates, print production, shipping, invoicing). Or it could stand for the time an action is expected to be finished, for example "Approved" in 3 days.
- a status. Users can decide on the status **Confirmed** or not (still "pending").
- a set of **Actions**. You can optionally attach Actions that need to be done to get that Milestone confirmed.
- a **Responsible** user.

Milestones can be created and managed

- manually, by a user in the Pilot.
- by copying them from a template job (manually or via the [Task 'Create Job'](#)).
- by the [Manage Milestone task](#).
- by an external system, using JDF/JMF. Learn more in [Integrating with External Systems](#).

How can you Use Job Milestones?

Milestones can be used

- as the basis for **status feedback to external systems**. This is the main reason to invest in setting up and using Milestones.

Automation Engine focuses on reporting what happens with a job but not on job organization or job distribution: that is the task of the order management system. What is important is that Automation Engine reports back to such systems and that this ideally happens without manual intervention of prepress users (who have other things to focus on). Learn more in [Informing Other Systems of the Milestones Statuses](#) on page 49.

- in the Pilot,
 - when **filtering** jobs. For example you want to remove all jobs that have a milestone "Finished" confirmed more than 2 weeks ago.
 - as **visual help when tracking the status of jobs**.

6.2. The Milestones View

This view is different when you are using it in the **Job Overview** mode or in the **Last Used Job** mode.

Both these views use these icons for different milestone statuses:


- ✨ indicates the time the job was created.
- ◆ indicates the current time on the time line.
- 📅 indicates a pending milestone (not confirmed).
- 🖨️ indicates a selected milestone.
- 🕒 indicates an overdue milestone: the current time is later than the due date of the (pending) milestone.
- 📅 indicates a milestone that contains one or more **Actions** that are not all **completed**. Learn more in [Working with Milestone Actions](#) on page 44.
- 📅 indicates a pending milestone of which all **Actions** are **completed**.
- 📅 indicates a confirmed milestone. A milestone must be completed before it can be confirmed.

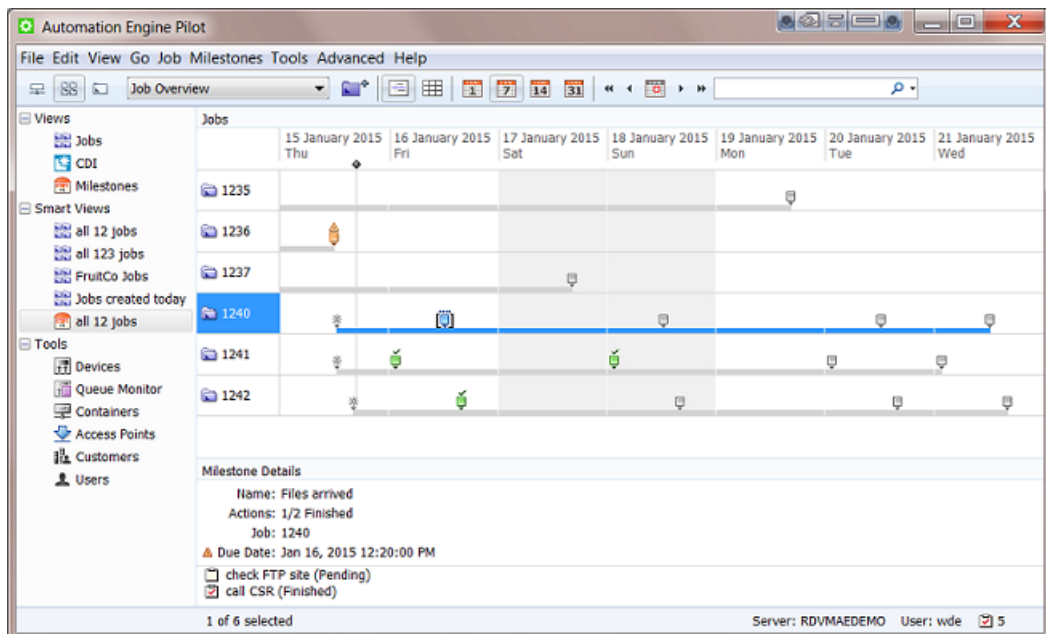
6.2.1. In Job Overview Mode

When you are in **Job Overview** mode, you can see all milestones of a (filtered) list of jobs.

The **Milestones** view offers two types of overview.

The Timeline View

The **Timeline View**  shows you the milestones for a defined period.



Use these buttons to define the time period you are viewing:

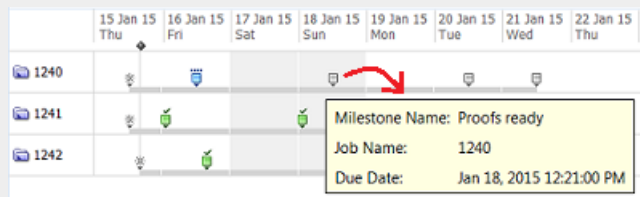
- to show 1 day, 7 days, 14 days or 31 days.
- to show the previous week, previous day, the current day, the next day or the next week.

From the menu **Milestones**, use **Go to Date...** to specify a specific date in the center of your view.

Select a milestone to see **Milestone Details** in the bottom pane.



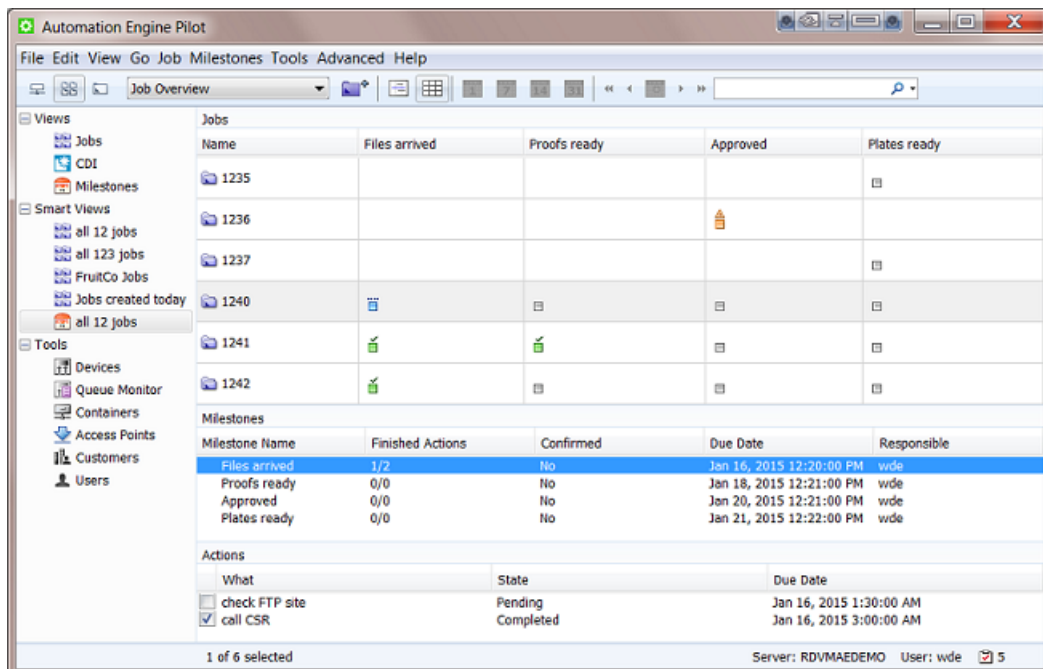
Tip: When hovering over a milestone icon, you will see its name and more details:



Tip: Double click a milestone icon to open the milestone view for that specific job.

The Status View

The **Status View** shows the milestones and their status in columns.

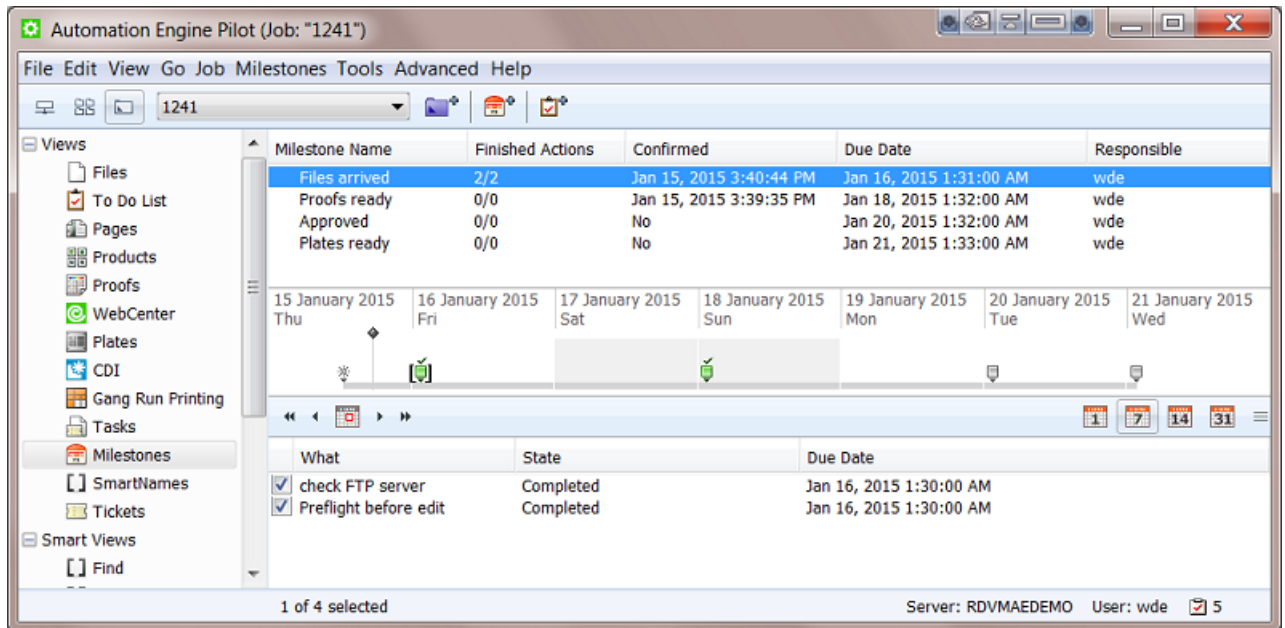


Go to **View > Select Columns...** to choose which milestones will be shown here and to define the order of these columns.

If no icon appears in a milestone column, this means that this milestone is not defined for that job.

6.2.2. In Job Mode

In **Last Used Job** mode, the **Milestones** view shows all the milestones for a specific job.



The screenshot shows the 'Automation Engine Pilot (Job: "1241")' window. The 'Milestones' view is active, displaying a table of milestones and their completion status.

Milestone Name	Finished Actions	Confirmed	Due Date	Responsible
Files arrived	2/2	Jan 15, 2015 3:40:44 PM	Jan 16, 2015 1:31:00 AM	wde
Proofs ready	0/0	Jan 15, 2015 3:39:35 PM	Jan 18, 2015 1:32:00 AM	wde
Approved	0/0	No	Jan 20, 2015 1:32:00 AM	wde
Plates ready	0/0	No	Jan 21, 2015 1:33:00 AM	wde

Below the table is a timeline view for January 2015, showing the progress of these milestones across the days of the week.

At the bottom, a details pane shows the following information:

What	State	Due Date
<input checked="" type="checkbox"/> check FTP server	Completed	Jan 16, 2015 1:30:00 AM
<input checked="" type="checkbox"/> Preflight before edit	Completed	Jan 16, 2015 1:30:00 AM

The status bar at the bottom indicates '1 of 4 selected' and 'Server: RDVMAEDEM0 User: wde'.

Select a milestone to see it selected in the time line and to see details below about any actions for this milestone.


Printing out the Job's Milestones

You can use **Milestones > Print Milestones...** to print (or save to PDF) a view of a job's milestones. You can define the printer's page format but the content of the page is fixed. The page shows some major job info and the milestones' timeline and overview.

An example:

Milestones 42100 Scope label

Job Info


 Job Name: 42100 Scope label
 Due Date: Apr 30, 2004 4:30:00 PM
 Order ID: 42100
 SubOrder ID: 00002_0000001
 Category: Scope jobs
 Customer: VisionInC
 Customer Reference: B 4062004
 Last Actor: wde@egwde
 Folder: file://egwde/wde\data/Scope_jobs/42100_Scope_Label
 Description: Scope Binoculars label (European release end 2004)

TimeLine

apr 22 23 24 25 26 27 28 29 30 apr


Milestone	Responsible	Actions	Due Date
Start			Apr 22, 2004 3:18:04 PM
Files Available	Justine (egwde)	0 of 0 - Confirmed	Apr 23, 2004 4:30:00 PM
editing in BSE or AI	wde (egwde)	1 of 1 - Confirmed	Apr 26, 2004 7:00:00 PM
		editing todo	Apr 24, 2004 8:30:00 AM
Approved digitally	admin (egwde)	0 of 0 - Confirmed	Apr 28, 2004 2:30:00 PM
Plates Ready	george (egwde)	0 of 0 - Confirmed	Apr 29, 2004 10:00:00 AM
End Job	no owner	0 of 0 - Not Confirmed	Apr 30, 2004 4:30:00 PM

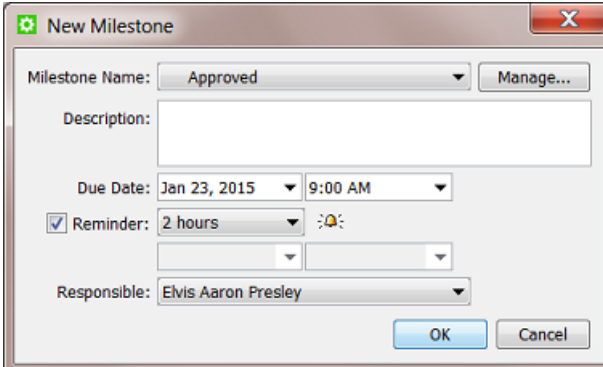


Note: The thumbnail of the job shown in this printout is the one you can (manually) add in the **Job** tab sheet of the job setup.

6.3. Adding Milestones to a Job

Adding a Milestone Manually

1. Select your job and open the **Milestones** view.
2. Click , or go to **File > New Milestone**.



New Milestone

Milestone Name:

Description:

Due Date:

Reminder:

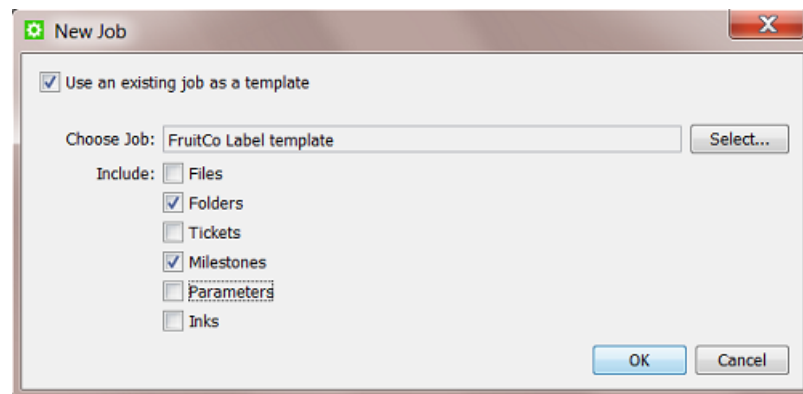
Responsible:

3. From the **Milestone Name** list, select the milestone you want to add to this job. If the one you want is not yet in the list, click **Manage...** and create it there. Learn more in [Manage \(Custom\) Milestones](#) on page 42.
4. If you want, add a **Description** for your milestone.
5. Define a **Due Date** and time. This is a mandatory field.

6. If you want, add a **Reminder**. Choose an absolute time or a time relative to the due date. At that time, a reminder will be E-mailed to the **Responsible** user.
7. Select the user that is **Responsible** for this milestone. This is a mandatory field when you set a reminder.
8. Click **OK**.

Copying the Milestones from another Job

When you create a new job (manually or via the [Create Job](#) task or via JDF), you can copy the properties of another job (template) to that new job. This can include the milestones of that other job.



The copied milestones will be set relative to the creation date and time of the new job.

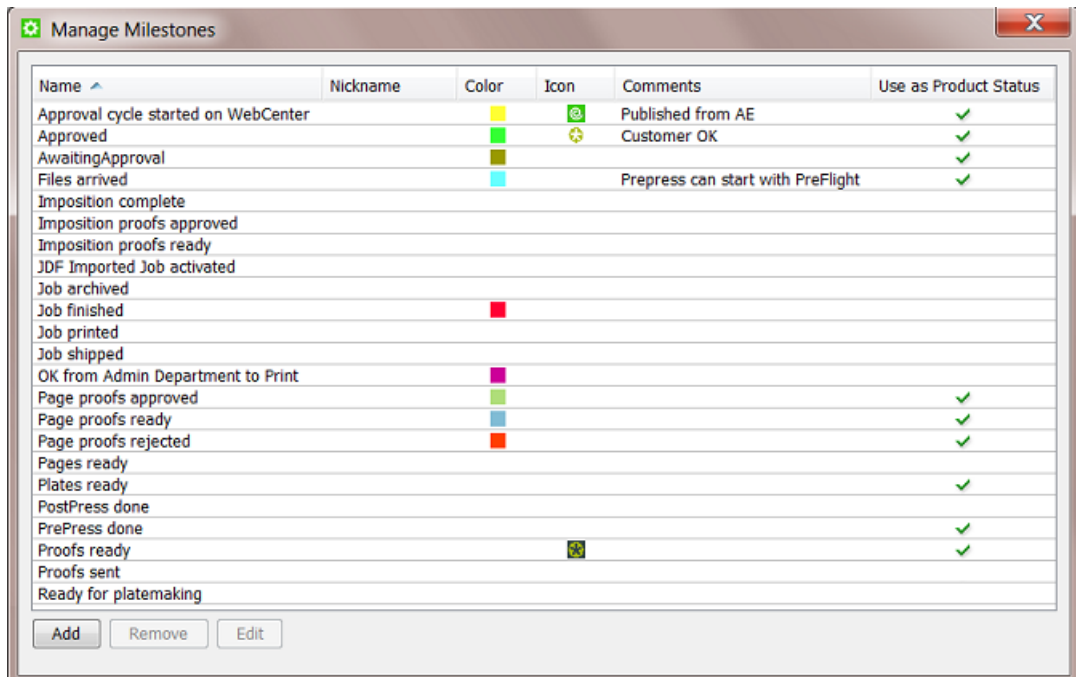
For example, a typical job for your customer 'FruitCo' has a job due date of 9 days after job creation and during that period it includes 3 custom milestones. The due date of the new job that copies those milestones will then be set to 9 days after its creation date. And its milestones will be created relative to the new creation date.

6.4. Manage (Custom) Milestones

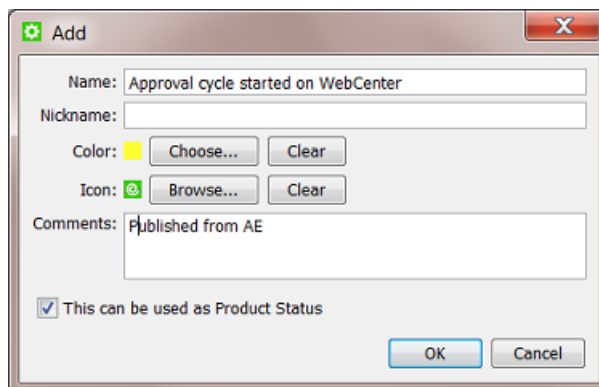
There are many predefined milestones, but you can also create custom milestones.

In the **Milestones** view (in **Last Used Job** mode):

1. Go to **Milestones > Manage Milestones**. This dialog shows you all your milestones and their attributes:



2. Click the **Add** button.



In this dialog:

- Enter a **Name** for your custom milestone.
- You can also enter a **Nickname**. It could be a simplification of the name, or a translation or **If you define one, then this is the name that will be shown in lists of milestones in the AE client's interface.** This is also useful when your milestones are managed by JDF/JMF. Learn more in [Integrating with External Systems](#).
- If you want, choose a **Color** and / or browse to an **Icon** to help recognize this milestone. Icons can be based on JPEG/PNG/GIF files and will be automatically scaled to a fitting resolution.
- You can also enter **Comments**. For example to explain all users how this milestone should be used or if an external system is using this milestone information.

- If you use the [Products](#) tool, define if this milestone can also be used as Products status. This option is (since v20) only enabled for custom milestones. Default system milestones have a fixed setting for this.
- Click **OK**. Your custom milestone now appears in the list and is ready to be added to jobs..



Note: You can safely remove milestones that you already used in jobs. Those jobs will not lose their (local copy) of the milestone.

6.5. Working with Milestone Actions


Concept

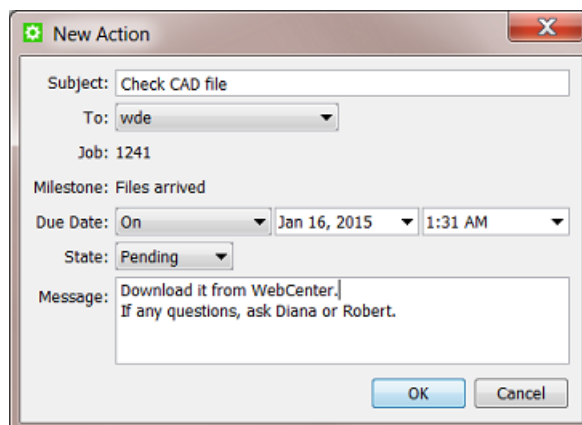
A milestone represents a status that you want to reach. A milestone can also list what **Actions** need to be done to reach that state. A milestone can only be **confirmed** when all its actions were set to **completed**.

Some customers use these tools extensively and ask their users to base their daily work on the milestone actions appearing in their [To Do List](#). These users then use custom filters when over-viewing (their) actions. They typically filter their actions based on user, state and urgency.

Creating Milestone Actions

To add an action to a milestone:

1. Select the milestone in the **Milestones** view.
2. Click  or go to **Milestones > New Action...** or right-click on the canvas in the bottom part of the Pilot.
3. In the **New Action** dialog, enter what needs to be done, who needs to do it and by when.

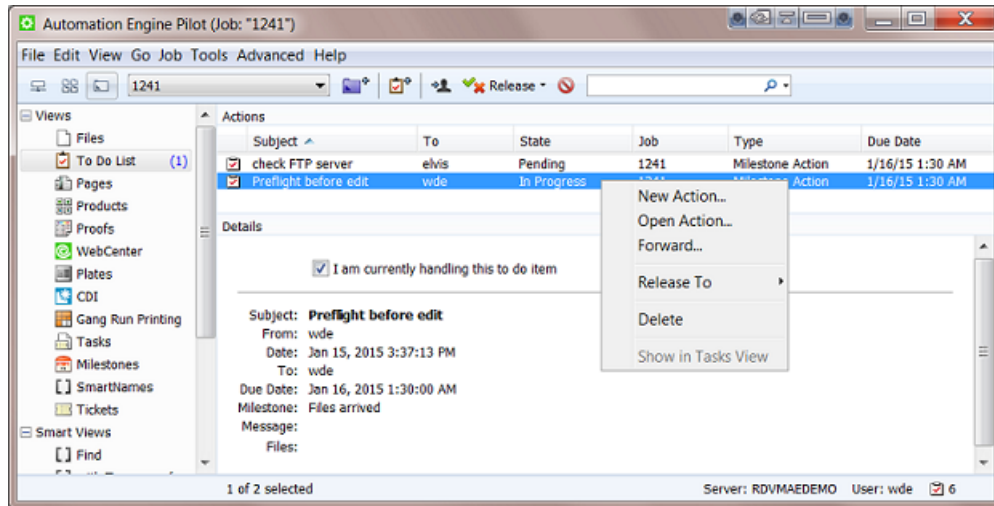


The user that needs to do the action can later change the **State** from **Pending** to **In Progress**, **Completed** or **Aborted**.

Working with Milestone Actions

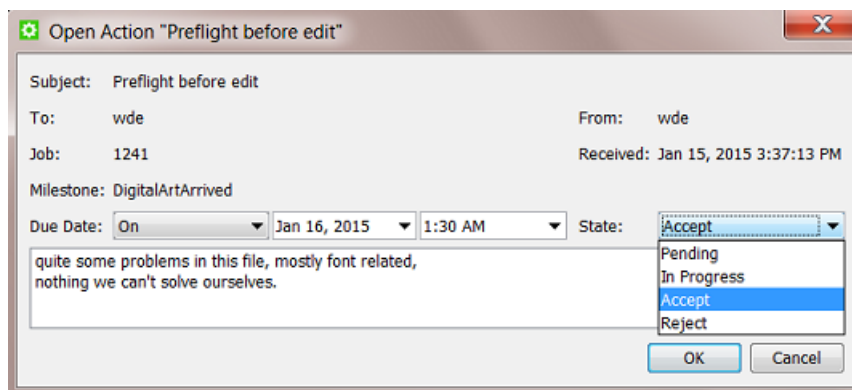
Milestone actions appear

- in the **Milestone view**, when in job mode. See a screenshot [here](#).
- in the **To Do List**, as **Milestone Actions**. The To Do list offers some more functionality on these actions:



- Right-click to open, delete or create a new action.
- Right-click or click to **Forward** the action to another user.
- Check **'I am currently handling this item'** to change the state to **In progress**.

Open (double-click) the action to use these extra tools:



- Change the **State**.



Note: Because the names of these states are shared with **CheckPoint Actions**, choosing **Accept** or **Reject** will for a milestone action result in **Done**.

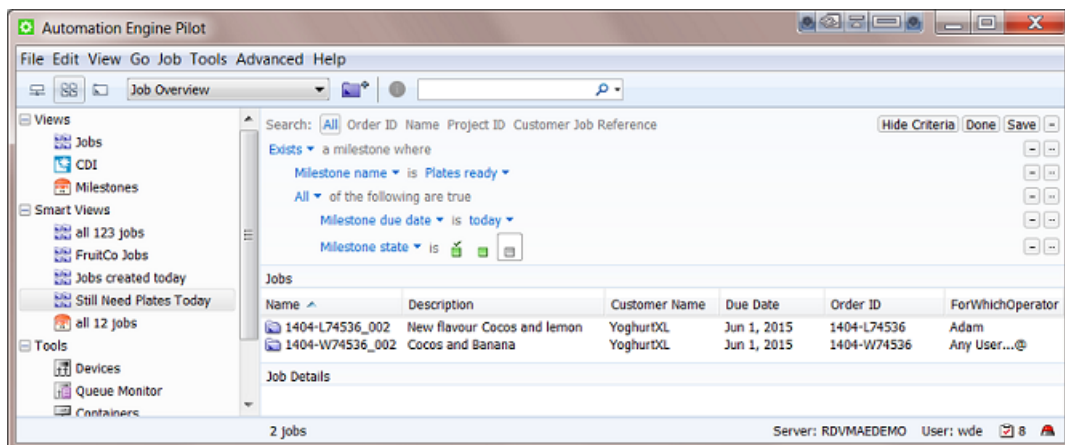
- Change the **Due Date**.
- Add a **Message**.

For example: a user opens his to do list in the morning and uses a filter showing all the actions on his name that have a due date before noon, in the state **Pending** or **In Progress**. He can also use the column **due date** to sort by urgency.

6.6. Using Milestone Statuses to Filter Jobs

The filters that you make in Job Overview mode can also be based on milestones.

See this example of a filter that was saved as a **Smart View** named "Still Need Plates Today". It only shows jobs with an unconfirmed milestone "Plates Ready" that has a due date today:



Learn more on creating such filters in [Job View Filters](#) on page 8.

6.7. Using Milestones in Workflows: the Manage Milestone Task

Concept

Using milestones in workflows enables these principles:

- Milestones can help control a workflow. A workflow can check the status of a milestone before continuing (in a specific direction). Use the workflow control **Router** to do this. See an example [here](#). Learn more in [Router](#).



Tip: When you also work with the Products tool, then check if the dedicated **Wait for Product Status** task is a better alternative.

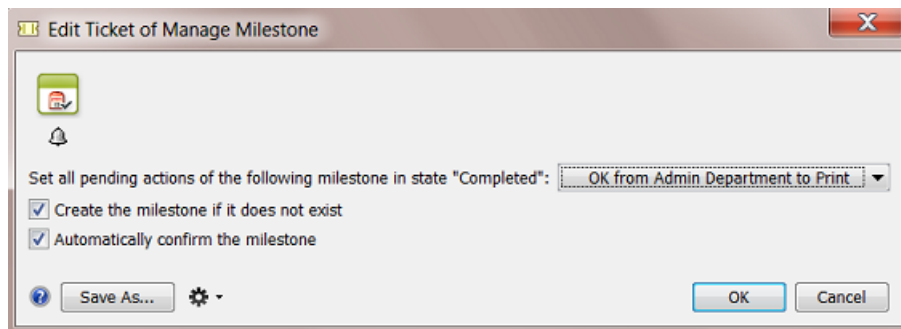
- The **Manage Milestone** task helps to automate working with milestones. This task serves to create and confirm milestones as a workflow step. This enables a lot of automation when working with milestones. And you can also use it to hold workflows. Learn more below.

See an example of a workflow that automatically confirms four milestones:



The Manage Milestone Task

You can use this task to automatically decide one or multiple of these milestone attributes:



- **Set all pending actions of the following milestone in state "Completed"**: Select the milestone you want to set as "Completed". Learn more about **Milestone Actions** in [Working with Milestone Actions](#). This setting is mandatory.
- **Create the milestone if it does not exist**: If the above selected milestone you selected was not yet added to the job, check this option to add it (otherwise the task will fail). The milestone will be created with the status "Completed".
- **Automatically confirm the milestone**:
 - Check this option to set the above selected milestone as "Confirmed" and have the workflow continue with its next step(s) or with any task that was waiting for this milestone to be confirmed.
 - Do not check this option if you are still waiting for a confirmation. The task will then serve as a hold-point: it will pause the workflow until that milestone is confirmed.
 - In the **Workflow Editor**, this step then will jump up and down, as a signal that a user intervention is needed:

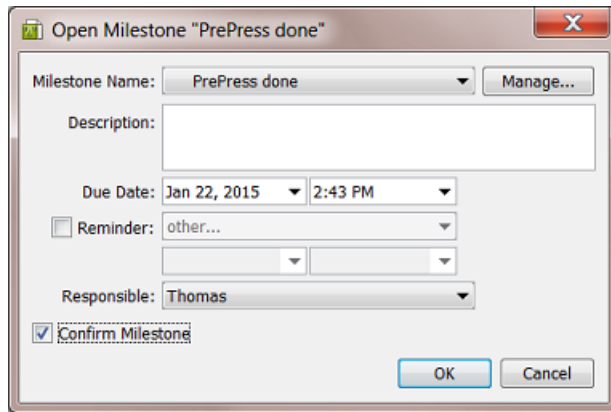


Right-click the file-icon and choose to **Open Milestone...** or to **Show in Tasks View**.

- In the **Tasks** view, you will see the phase **User intervention needed**.

File Name	Task Type	Progress	Phase	State
banana.pdf	Manage Milestone	0%	User intervention needed	⏏
banana.pdf	Workflow	100%		✓
banana.pdf	Workflow	0%	Running	⏏

Click on the red text to open the milestone dialog where you can change any setting.



The dialog box titled "Open Milestone 'PrePress done'" contains the following fields and controls:

- Milestone Name: PrePress done (dropdown menu) with a "Manage..." button.
- Description: A large empty text area.
- Due Date: Jan 22, 2015 (dropdown) and 2:43 PM (dropdown).
- Reminder: Reminder: other... (dropdown).
- Responsible: Thomas (dropdown).
- Confirm Milestone (checkbox).
- OK and Cancel buttons at the bottom right.

If you check **Confirm Milestone** (and click **OK**), the workflow will continue. If you can not confirm this milestone yourself but for example need the help of someone else, then type in a description and change the responsible user.

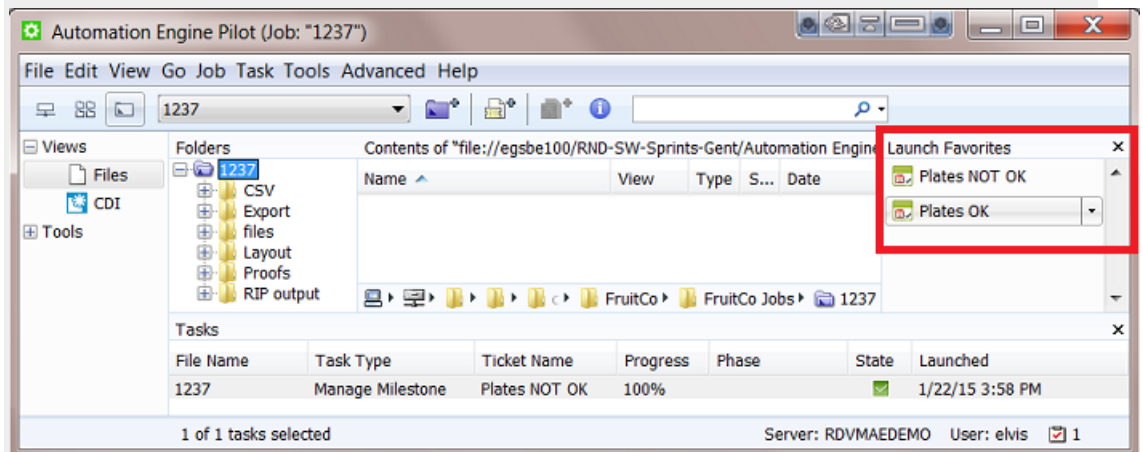
- In the **Milestones** view, right-click to open the milestone or directly click in the column **Confirmed** to change it to **Yes**.

Milestone Name	Finished Actions	Confirmed	Due Date	Responsible
PrePress done	0/0	No	Jan 22, 2015 2:43:00 PM	toto



Tip: Some customers make the manual confirmation of a milestone easy by offering the users a favorite ticket that only (creates and) confirms a milestone. This is useful when that user is aware of a status that Automation Engine has no information on.

For example: A plate room operator checks plates that come out of the developer. He reads their job number on the plate and types it in as a job filter in his simplified Pilot. He then launches the appropriate favorite ticket: **Plates OK** or **Plates NOT OK**.



This information can now automatically change a workflow and/or be sent out to the system that does the press planning. Learn more about such feedback in the next section.

6.8. Informing Other Systems of the Milestones Statuses

The milestone status of an Automation Engine job is often more important to external people than to users of the Pilot. Many parties want to be kept up to date about the latest status in prepress, both colleagues and customers.

External systems are not always interested in all prepress details. You can choose to only inform them on some specific milestones.

These are tools that help inform other systems and their users:

- Add a **notification** to your **Manage Milestone** task. This can be an E-mail notification or the same message can also be written in an XML file for an external system to read. Learn more about the type and content of such messages in [Task Notifications](#).
- Or you can use one of many tools dedicated to help integrate Automation Engine with external systems. Typical methods are
 - write out XML files
 - write directly in the database of the external system
 - when the external system is capable of subscribing to JMF signals, you can set up the automatic sending of JMF signals when a milestone is confirmed.

For more information on these feedback tools, see the dedicated chapter [Integrating with External Systems](#).

7. About Removing Jobs

Concept

An Automation Engine job represents a Work In Progress. It is expected that you remove the job when the work is done.

Removing a job means that it is removed from the Automation Engine jobs database. You have the option to keep the job folder data.

When you remove a job,

- all finished tasks in that job will be deleted. If you wish to keep those tasks, use the [Task Cleanup Rules](#) to move them (earlier) to the [Task History](#) tool.
- if that job still has unfinished tasks, you will be asked before removing the job to confirm that they can be cancelled and deleted.
- all **Actions** for that job in the **To Do List** will be deleted.
- any setup of (the old tool) Hot Folders in that job folder will be removed.
- when you choose to not delete the job folder, all the job's setup parameters will be stored in a subfolder 'config' (this is the information that was inside the database).
- the job will disappear from the Job Overview in the Pilot or workspace.
- in the Containers view, the blue colored folder icon will turn back into a standard yellow folder icon.
 - That is now a folder from where you could re-create that job later (using the data in the hidden 'config' folder).



Note: The **Archive Job** task allows to remove the job (from the database) and move the job folder to a different place in the network. Learn more in [Task 'Archive Job'](#) on page 55.

You also have tools to reactivate the job, to recreate it back into the jobs database. Learn more below.

Manual and Automatic ways to Remove Jobs

You can remove jobs

- manually, using the Pilot. Learn more below.
- by use of a workflow. This is usually a combination of the [Select Job](#) workflow control followed by the [Remove Job task](#). Use the links to learn more.
- fully automatic, by having an external system launch a workflow that removes jobs. Also JDF can remove jobs directly. Learn more in the chapter [Integrating with External Systems](#).

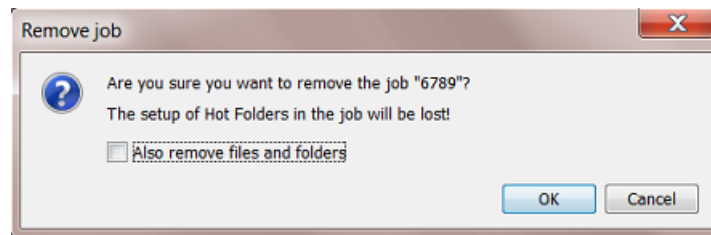


Note: In an AE SaaS setup, you can also inactivate Jobs by moving them to Esko Cloud. Learn more in [AE SaaS: When your AE is in a Data Center](#).

Removing a Single Job

To remove a single job, select the job and press **Delete**. You can also right-click (or go to the menu **Job**) and choose **Remove Job...**

You will be asked to confirm. You can choose to also remove the job folder and its contents.



Attention: There is no way to **Undo** the removal of the files and folders.

Removing Multiple Jobs

In the Job Overview mode, you can select multiple jobs and remove them in the same way as described above. You will also get the option to keep or remove (all) their job folder data.



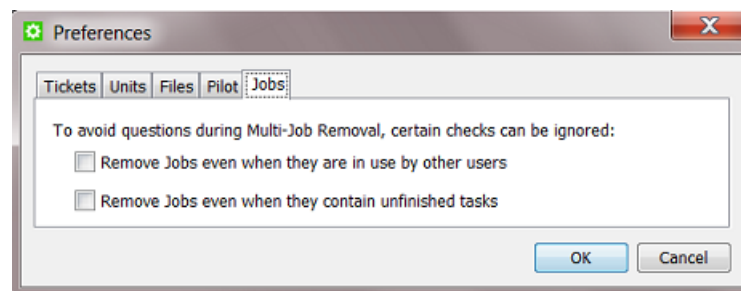
Note: It is good practice to use a smart filter when you select multiple jobs to be deleted. For example: all jobs that have their milestone 'finished' confirmed more than a month ago.



Note: There is no "Remove Job" task, so you can not remove jobs as a workflow step.

In **Edit > Preferences**, you can decide to avoid getting (many) questions when you remove multiple jobs:

- questions about jobs being in use by other users. A job is 'in use' when a user has this job open in his Pilot.
- questions about jobs containing unfinished tasks.



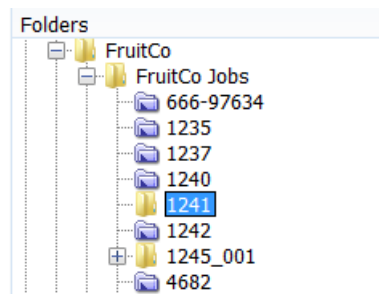
Learn more in [Pilot Preferences on Multi Job Removal](#).

Recreating a Job that was Removed

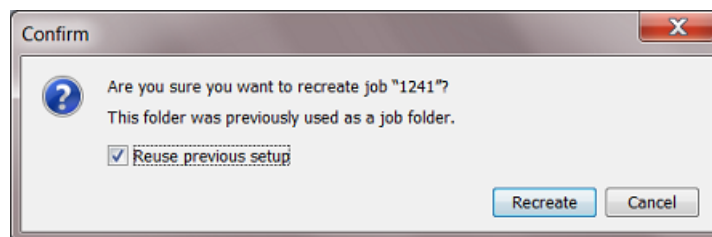
When a job was removed but the job folder data is still available, you can recreate that job back into the jobs database.

There are two ways to recreate a job:

- Recreating a job manually. Follow these steps:
 1. In Containers view, select the yellow folder that used to be the job folder of a removed job.



2. Right-click (or go to the menu **Job**) and choose **New Job...** When a previous job setup is detected in that job folder (in the subfolder 'config'), you will be able to recreate that job. Choose to **Reuse the previous setup**.



3. Click **Recreate**. The renewed job will be opened and will contain the previous job setup parameters, subfolders and local (blue) job tickets.
- Recreating one or multiple jobs with the **Restore Job** task.

Learn more in [Task 'Restore Job'](#) on page 57.

8. Tasks you can Launch on Jobs

These are the tasks that you can launch **only** on Automation Engine jobs:

- The [Relocate Job task](#) moves the job folder of a job to another place (within an AE Container).
- The [Archive Job task](#) removes a job and exports all its data and metadata into a ZIP file.
- The [Restore Job task](#) re-creates a job from a ZIP file that was created by the **Archive Job** task.
- The [Check Job Parameters \(Classic\) task](#) checks or correct the input file's barcode and inks according its job parameters.
- The [Remove Job task](#) is used to remove jobs as a step in a workflow. This task is then preceded by the [Select Job](#) workflow control.
- Only in an AE SaaS setup, [several tasks](#) enable to move Jobs to Esko Cloud, where they become inactive jobs. Learn more in the chapter [AE SaaS: When your AE is in a Data Center](#).

Like all tasks, these tasks can also be triggered by an external system. Learn more in [Integrating with External Systems](#).

The [Create Job task](#) is documented in the chapter [Integrating with External Systems](#).

8.1. Task 'Relocate Job'

Concept

This task allows to change the location (the URL) of an Automation Engine job folder. The job itself does not change, only the path of its job folder.

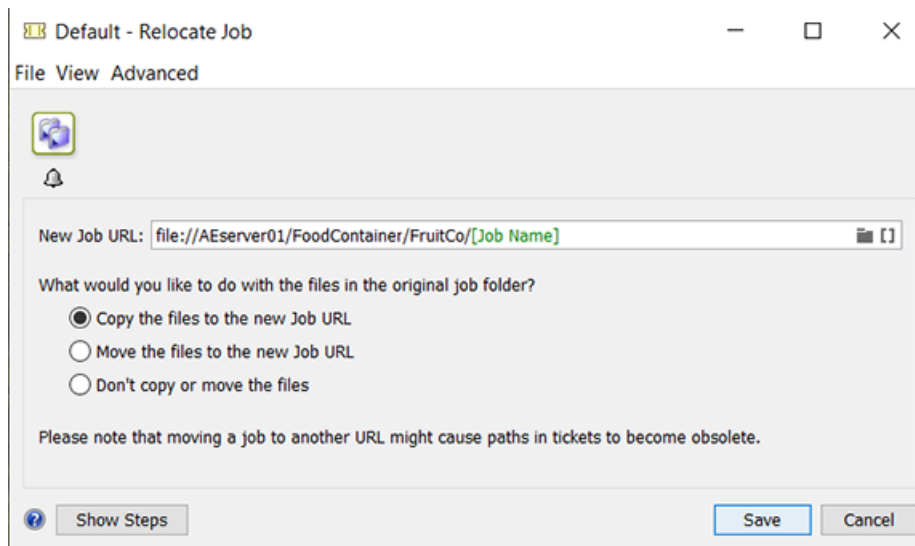


Attention: The term 'location' in this task only refers to the place (URL) the job(folder) has in one of the AE Containers. It has no relation to the Location that you can define for a Job or Product to enable filtering of data per group of users (as explained in [Locations](#)).



Restriction: You can not launch this task as part of a workflow.

Task Options



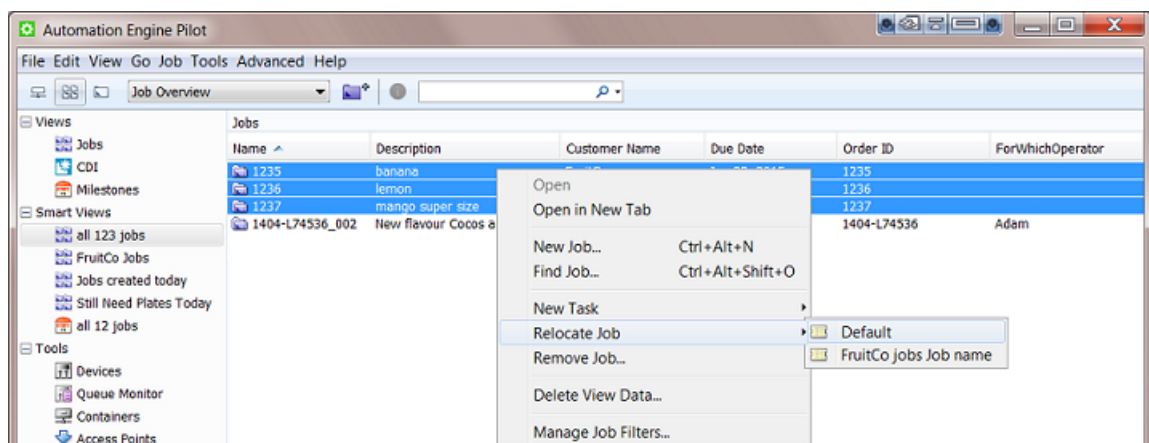
- Enter the **New Job URL**. Keep in mind to end the path with a SmartName that defines the name of the job folder.
- You can choose to:
 - Copy the files to the new Job URL.
 - Move the files from the original job folder to the new one.
 - Not copy or move the files. The relocated job will then have an empty job folder.



Warning: If you move a job folder without using a tool from Automation Engine, the job setup field for the job folder will not be updated and the Pilot will show warnings. Automation Engine will keep trying to retrieve your missing files and this can slow down your server.

Relocating Multiple Jobs

In Job Overview mode, (filter and) select the jobs you want to relocate. Right-click and choose a **Relocate Job** ticket:



8.2. Task 'Archive Job'

Concept

The **Archive Job** task removes a job from the jobs database and exports the data in a form that enables to restore the job later.

Typical for this task is that it exports the job metadata as well, these are the job setup parameters. This metadata makes it possible to restore the job (back) later.



Note: The job's metadata is exported in a subfolder named 'config'.

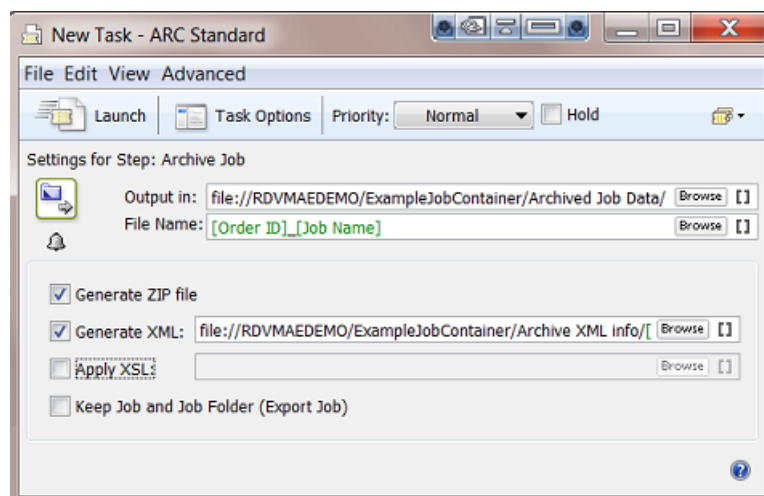


Note: When you launch the **Zip task** on a job, the task only ZIP's the data inside the job folder, not the job's metadata.



Note: When archiving (removing) a job, the tasks that were launched in that job will be deleted. If you want to keep these tasks, use the [Task History](#) tool. This tool allows setting up rules that automatically move those tasks to a separate database (before archiving the job).

Task Options



- **Output in:** define where you want to write this archive data. For example some customers use a 3rd party backup/archive solution that scans specific network folders for new incoming data. This system then archives that data online or writes it on a backup medium.
- **File Name:** define the name of the file in which all data will be stored. When you do not choose to generate a ZIP file, this will be a folder with subfolders.
- **Generate ZIP file:** deselect this option if you want to move the job folder to the above location without ZIP'ing all data.
- **Generate XML:** select this option to generate an XML file that describes this job. Such an XML file can be useful for a 3rd party archive solution that for example uses it to build up its search database.

- **Apply XSL:** select this option if you want to format the XML file using an XSL style sheet from a 3rd party archive solution.
- **Keep Job and Job Folder (Export Job):** deselect this option if you want to delete the job folder once it is successfully archived.

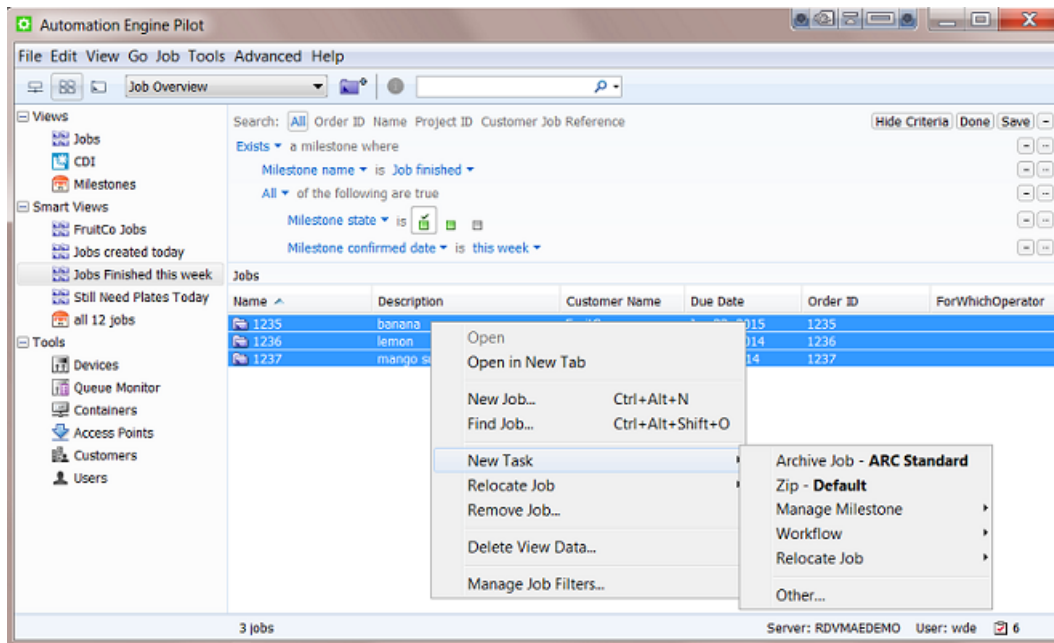
Select this option if you still want to keep the job in the job database and also keep the job folder in its original location. Here are some examples when to choose this:

- To use this task as a job backup tool.
- To exchange that job with another Automation Engine. For example to send a job to another plant of your company (that also has Automation Engine) or to share the job with Esko Customer Service.

Archiving Multiple Jobs

In **Job Overview** mode, right-click the selected jobs and choose your **Archive Job** ticket.

Here is an example of a smart way to archive multiple jobs. The filter lists all jobs that have their milestone "Job Finished" confirmed this week:



Using the Archive Job Task in a Workflow

You can end a workflow by archiving the job that the workflow was launched in.

Here is an example:



Notice these steps:

- After the plate making stage, the workflow waits for 2 weeks.
- It then sets the milestone "Ready for Archive" but without the option to confirm it. This triggers a request for a user intervention (learn more about [this option the Manage Milestone task](#)).
- When a user confirms this milestone, the workflow continues and archives the job.

8.3. Task 'Restore Job'

Concept

This task allows to restore jobs back to the Automation Engine job database that were previously archived using the [Archive Job](#) task.



Note: When the **Restore Job** task is a step in a workflow, it will only have the **error** output pin.

Possible Input Types

The input file for this task can be

- a ZIP file created by the **Archive Job** task.
- a job folder created by the **Archive Job** task.



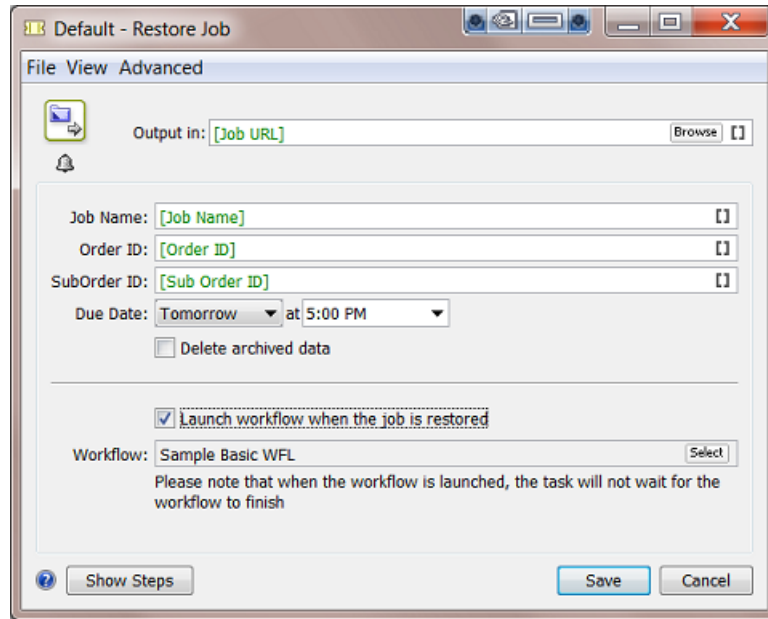
Important: The ZIP file or the folder need to be created by a version of Automation Engine that is equal or lower than yours.

- an XML file that refers to the location of a ZIP or folder created by the **Archive Job** task.

The root node of the XML needs to have an XML attribute named "Location". The value of this attribute is the URL to the ZIP or archived job folder. Here is an example XML (it looks like the XML generated by the Archive Task):

```
<?xml version="1.0" encoding="UTF-8"?>
<Archive Location="file://aeserver01/Food/Archived Job Data/1237.zip"/>
```

Task Options



- **Output in:** Define where you want to place the restored job folder. Use [Job URL] when you want to restore the job to its original location and with its original job folder name.



Note: When you restore to a server that has a different name (typically a new AE server), then avoid using SmartNames that result in a value that contains that name of the old server. For example, [Job URL] will try to restore to a path containing the name of the old server. Consider defining an output path that also uses [Server], the SmartName for the name of the current server.

- **Job Name:** Define the name of job once it is restored. Use [Job Name] when you want the job's original name.
- **Order ID** and **SubOrder ID:** Similar to the job name, define a new ID or use SmartNames to use the ID's of the original job.
- **Due Date:** Set the job's new due date.
- **Delete archived data:** Select this option if you want to delete the archive data after restoring the job.
- You can choose to **Launch a workflow when the job is restored**. The advantage of this function is that the chosen workflow will be launched *in the context of the restored job*. This means that all the used SmartNames will get their value from *that* job.



Important: If the **Restore Job** task itself is part of a workflow, the workflow that is chosen in this task will start immediately, as a separate workflow. It will not wait for the workflow that contains the **Restore Job** task to finish.



Note: This functionality is used when using 3rd party (hotfolder based) archiving solutions.

8.4. Task 'Check Job and Product Parameters'

Concept

This task checks if the barcode and inks (separations) parameters of the input PDF(+) file match those defined in its Job setup or as parameters of the Product Part it represents. The task can also apply (enforce) those parameters into the PDF file.



Note: This task does not support Normalized PDF files (because those use a *different screening model*). For those, use the classic version of this task (split over a *separate one for Job parameters* and a *separate one for Product parameters*).

General Behavior

- **Both for inks (separations) and barcodes:**
 - First the Product Part parameters are checked. If none were defined on Product Part level, then the Job parameters are used.
 - If a Job and Product parameter contradict each other, the value from the Product parameter is used.
- **For inks (separations):**
 - If the document contains placed art and the task is asked to apply screening properties, then the task will also adjust screen sets in the placed art. When the placed art was linked to the original document it will be unlinked without any extra message.
Objects with screen set 'None' will get a screen set matching the Job or Product parameters.
- **For barcodes:**
 - For barcodes the Product Part parameters are merged with Job parameters. Priority is given to the Product part parameters.
 - This task supports barcodes created in ArtPro+ and DeskPack barcodes saved as PDF+. (DeskPack barcodes with a "Stroke Weight" will become protected objects.)
- When using a SmartName, detect the required value via a right-click on the wanted option and choose '**Copy Parameter Value**'. Then paste this value in any text field or editor to see and read it.

Task Settings

- **Separations**
 - **Do not check.** Select this if you want the task to only check barcode parameters.
 - **Apply properties:** The task applies the separations parameters and printing methods as specified in the job parameters to the input file.
If any ink in the object's screen set does not have a defined Ruling or Angle or Shape, then the default values from the bottom part of Job Inks will be merged into the ink.
If the input file is a product part for which product part inks are defined, then the job parameters are ignored and the product parameters will be applied.
 - **Apply properties and order:** The task applies the separations attributes, printing method and order as specified in the job parameters to the input file.

If any ink in the object's screen set does not have a defined Ruling or Angle or Shape, then the default values from the bottom part of Job Inks will be merged into the ink.

If the input file is a product part for which product part inks are defined, then the job parameters are ignored and the product parameters will be applied.

- **Check properties and order:** The task ends in error when the separations attributes, printing method and order as specified in the job parameters do not match those in the input file.

If the input file is a product part for which product part inks are defined, then the job parameters are ignored and the product parameters will be checked if they match.

- **Barcodes**

- **Do not check:** Select this if you want the task to only check separations parameters.

- **Apply properties:** The task applies the barcode parameters in the job parameters to the same type of barcodes in the input file.

If the input file is a product part for which barcode parameters are defined, then the job parameters are ignored and the product parameters will be applied.

- **Check properties (top level only):** The task ends in warning when the barcode parameters in the job setup do not match those in the input file.

If the input file is a product part for which product part barcode parameters are defined, then the job parameters are ignored and the product parameters will be checked if they match.

- **Check properties (include placed art):** Same as above but now also including any placed art inside the input file.



Note: Only the checking of barcodes in placed art is possible ; applying barcode parameters is not possible.

8.5. Task 'Check Job Parameters (Classic)'

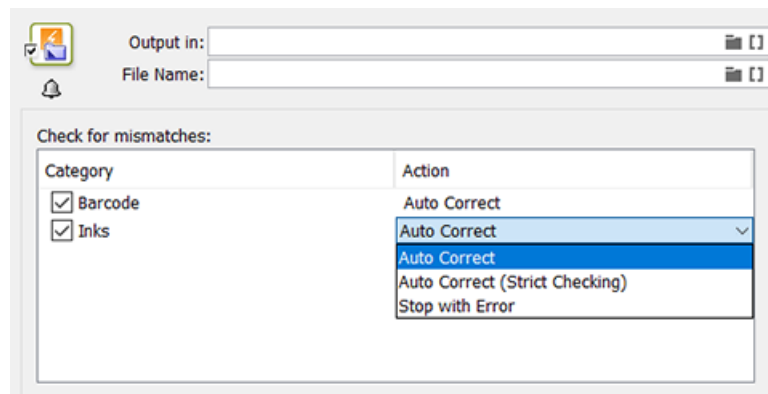
This task serves to check if your file matches specific parameters as defined in your job setup. You can also use it to automatically correct the file according those parameters.



Important: This task only supports Normalized PDF(PLA) files.



Note: For the task to function properly, the input file should be part of an Automation Engine Job.



Category Barcode

For barcode settings, you can select:

- **Auto Correct** when you want to correct the file with what is specified in the job's [Barcodes tab](#) .
For example, your Normalized PDF includes an Esko barcode of type EAN-13 and code 123456789012, and your job parameters specify an EAN-13 with code 5449000050205, then this task will automatically correct the barcode number in the PDF to 5449000050205.
- **Stop with Error** when you want the task to stop with an error if the barcode in the job's [Barcodes tab](#) does not match the barcode in the file.



Note: This task only checks barcodes created in Esko PackEdge or by using Esko's barcode plug-in for Adobe Illustrator (DeskPack). If the task does not find such a barcode, the task will end in a warning.



Note: You cannot use this task to check and auto correct barcodes in normalized PDFs generated by **ArtPro**.

Category Inks

For inks, you can select:

- **Auto Correct** when you want the task to correct attributes of the file's inks according what is specified in the job's [Inks tab](#).
- **Auto Correct (Strict Checking):** Same as 'Auto Correct' but now also the order of the inks is corrected (according the job's ink parameters).

In this strict setting, the task will finish with an error if it finds unexpected inks (inks that are in the file, but not defined in the job parameters) and with a warning if it finds missing inks (inks that are not in the file but defined in the job parameters).

- **Stop with Error** when you want the task to stop with an error if the job's ink parameters are different than those in the file.

Table: Some example situations when checking inks

Missing ink (ink specified in Job Parameters but not in file)	Always results in Warning
Wrong sequence of inks	Results in Error in case of strict checking, otherwise: no message

Unexpected ink (ink in file which is not in Job Parameters)

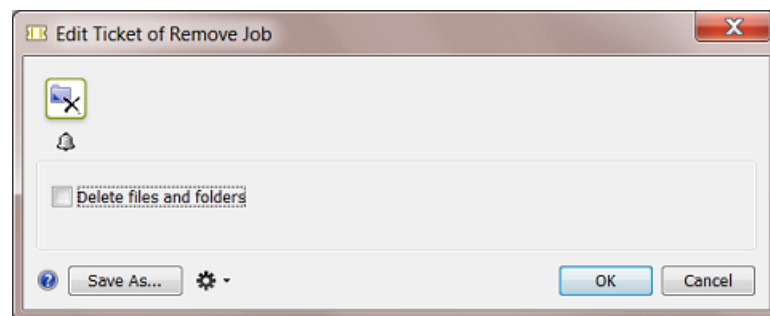
Results in Error in case of strict checking, otherwise: no message

8.6. Task 'Remove Job'

The **Remove Job** task serves to remove one or multiple jobs.



Tip: Learn more about what happens when jobs are removed in [About Removing Jobs](#) on page 50.



Using the Remove Job Task in a Workflow

This task needs a job as input. This is why, in a workflow, you typically use the workflow control [Select Job](#) in front of this task.

Having Jobs Removed by an External System

Any task can be launched by an external system. In workflows where jobs are created automatically through integration with an external system, that same system can also decide when to remove jobs. For example a business system triggers the **Remove Job** task right after it invoiced the job. Learn more in [Integrating with External Systems](#).

Only Removing the Job from the Database or also Removing the Files?

You can choose to also **Delete the files and folders**. This will delete the whole job folder.



Note: In a workflow, when this option is active, the **Remove Job** task step does not have an output pin and so represents an end point for that workflow.



Note: When the files and folders were not deleted, you can later still recreate the removed job with the same job settings as before. To do this, select the ex-job folder and choose **New Job** or launch the task **Restore Job**.

What about the Job's Tasks?

As usual, when a job is removed, the [Task Cleanup Rules](#) are applied. These rules decide which tasks move to [the Task History](#) and which ones are deleted. After applying these task cleanup rules (if any), any remaining tasks of this job are deleted.

8.7. Task 'Change Location of Jobs'

The term '**Location**' here refers to the concept of data-filtering as explained in [Filtering on Locations after consolidating all data](#).

In a setup where you decided to use this Location attribute for Jobs, you might start with many Jobs that do not have this attribute set yet.

This task enables to set (or update) this location attribute for all Jobs that match the filter defined in the task ticket.

You can not start this task by first selecting a set of Jobs ; this selection is built into the task itself.

1. Make a task ticket with the wanted filtering of jobs.
2. In the Workflow Editor, add this ticket to a workflow and save this workflow.
3. Launch this workflow (from within the editor or later for example as a favorite ticket).

9. Automated Creation of Jobs

Most of the job setup parameters originate in another system, often the order entry part of the business system. It could also be a web portal where job specifications were first entered.

When someone already entered this data manually, we advise to not re-enter that data. We therefore strongly advise to get your jobs created automatically.

The chapter [Integrating with External Systems](#) explains how this can be done. It describes the many available techniques and also offers exercises.

Here is a summary of how jobs can be created automatically:

- by the [Create Job task](#) that, as part of a workflow, picks up the job setup parameters via SmartNames or from an external (XML) file(s).
- by an [Access Point](#) that interacts with the external system and launches a workflow that uses the found information in the **Create Job** task.
- via JDF/JMF commands from an external system, sent directly to Automation Engine's JDF channel.