Alfresco Digital Business Platform Sandbox

Getting Started Guide

Alfresco Digital Business Platform - Contract Management

This guide show you how to set up a simple Contract Management system.

You can get going quickly and explore some of the key features and functionality of the Alfresco Digital Business Platform. You'll also learn how these different features can be easily connected to deliver solutions for specific business requirements.

In [45 mins] you'll have created a simple app that can be used to:

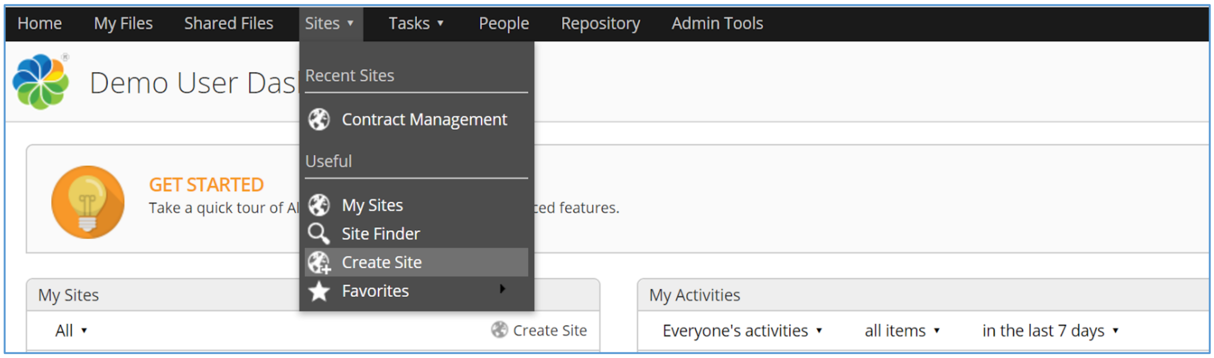
- Submit a contract for approval.
- Use information captured as part of that process to determine where the contract is stored, and ensure the required metadata is in place.
- Easily find contracts with customized search filtering.

We've included a couple of zip files that you can use to set things up quickly. If you prefer to set up manually then instructions are included in the Appendix.

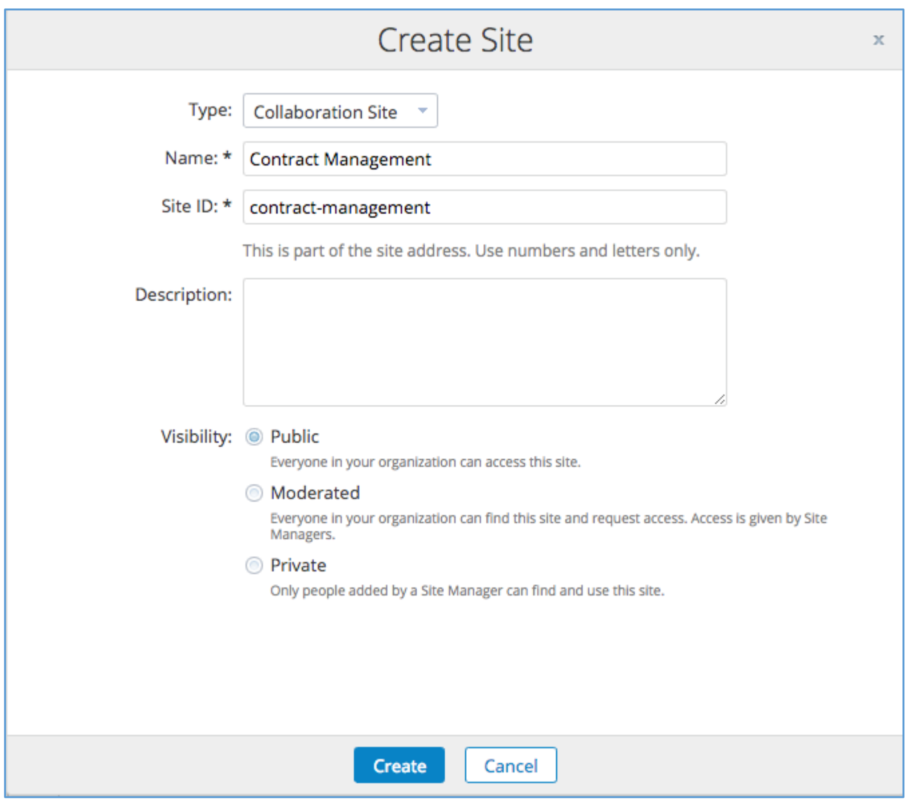
1. Creating sites and folders

To begin with we'll create a site to store contracts on, so that others can easily collaborate on them. We'll also set up two folders in a document library. Later, when we set up a process, it'll save contracts to the folders, based on what type of contract is uploaded.

1. Sign in to Alfresco Content Services at http://192.168.10.10:8080/share/page/ using **demo** as the username and **alfresco** as the password.
2. On your dashboard select **Sites** then **Create Site**.

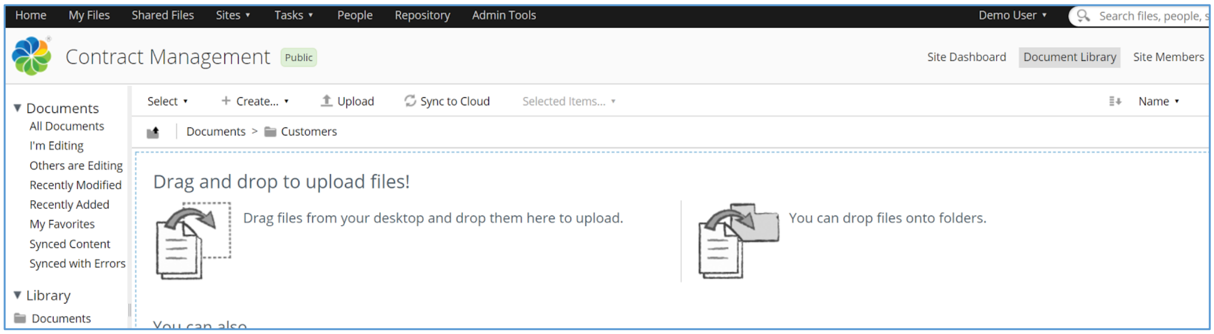


3. In the Create Site screen enter **Contract Management** as the name and leave all other settings as they are, then click **Create**.

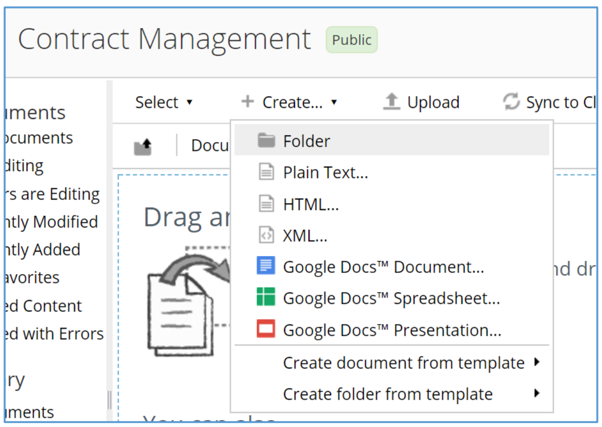


The dashboard for the new Contract Management site opens.

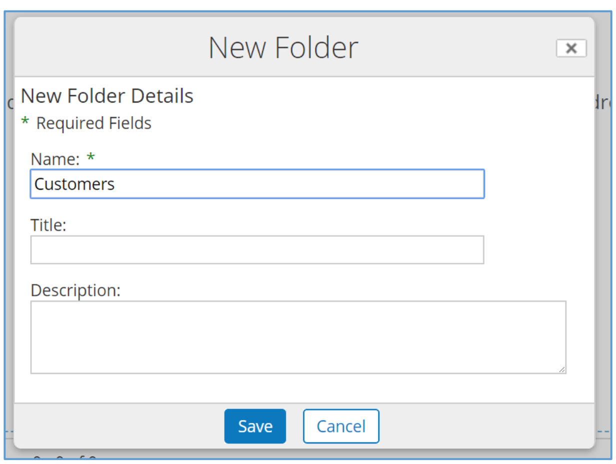
4. Click **Document Library** in the top right corner of the screen.



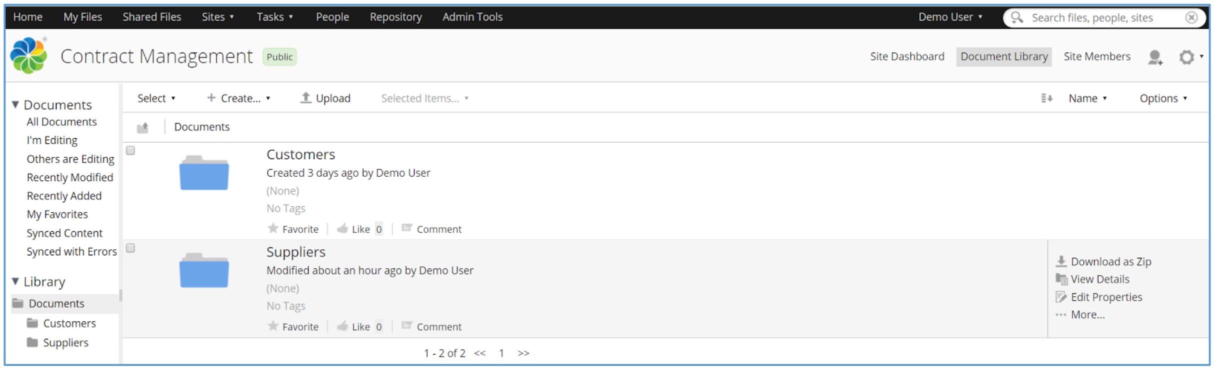
5. Click **Create** and select **Folder** from the list.



6. Type **Customers** as the name and select **Save**.



7. Now create another folder with the name **Suppliers**.
   The document library should now look like the screenshot below.

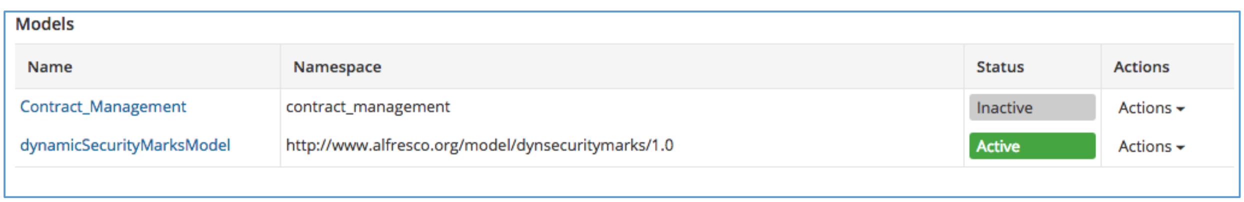


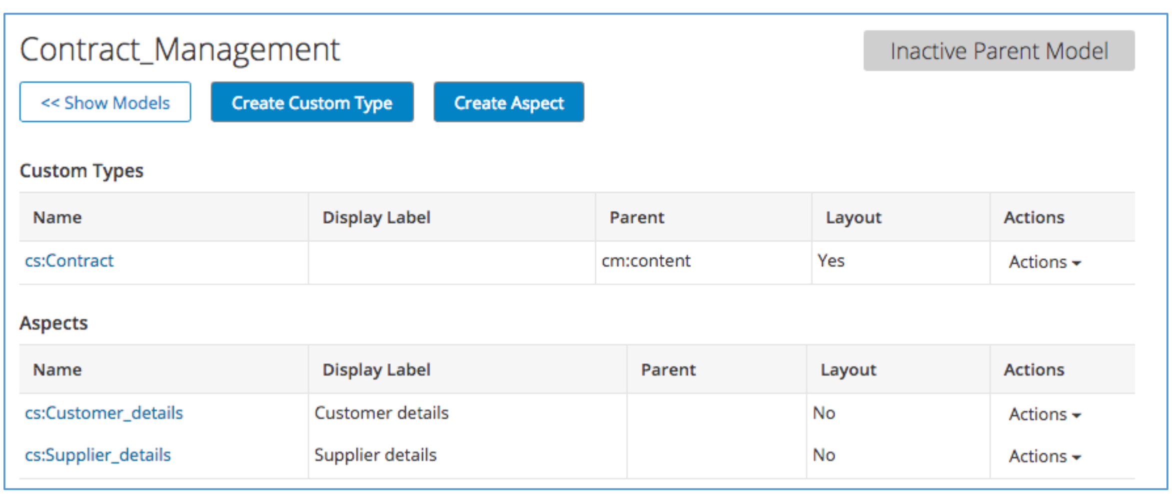
2. Creating content models

Next we're going to set up a content model. This is a metadata model that will include different types of contract, and the additional metadata to be stored depending on whether the contract is a 'supplier' or 'customer' contract.

These steps show you how to set it up using the downloaded zip file. If you prefer to set up the model manually then see Appendix 1.

1. Click **Admin tools** on the toolbar, then select **Model Manager** from the options on the left hand side.
2. Click **Import Model** and, choose the **ImportContentModel.zip** file, and click **Import**.
   The Contract_Management model is now displayed. If you click on Contract_Management you can see the Type and Aspects that it contains.



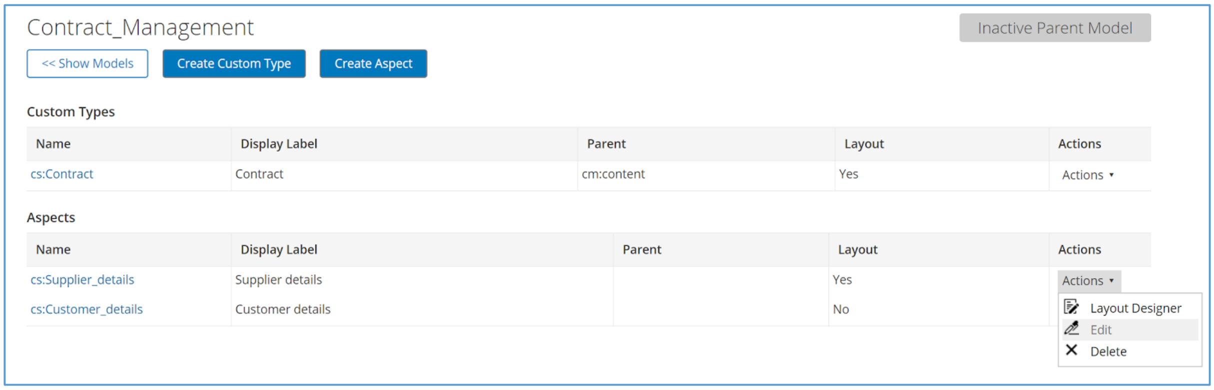


3. Displaying properties

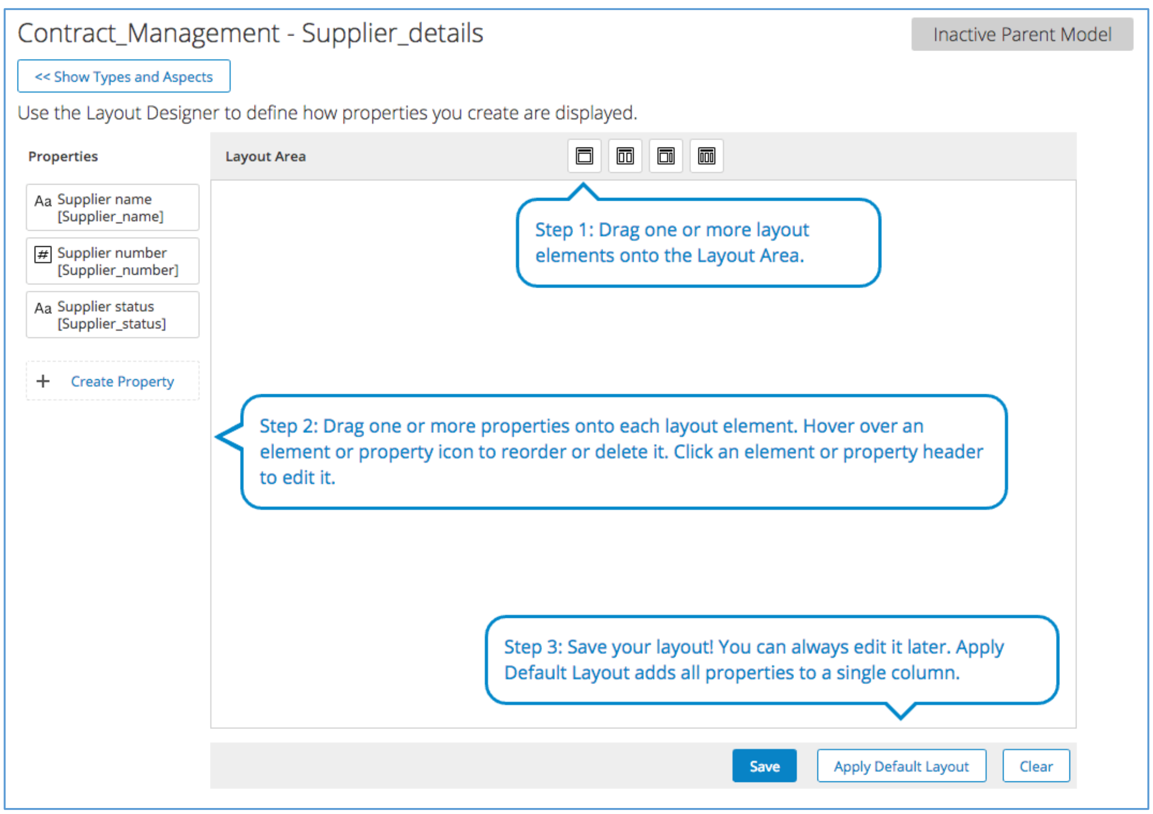
Now all the model is created, you can decide how it's properties are displayed using the Layout Designer.

1. Click on the Contract_Management model.
   You'll see the properties you defined in the Layout Designer.

2. Click **Actions** on the cs:Supplier_details line and select **Layout Designer**.

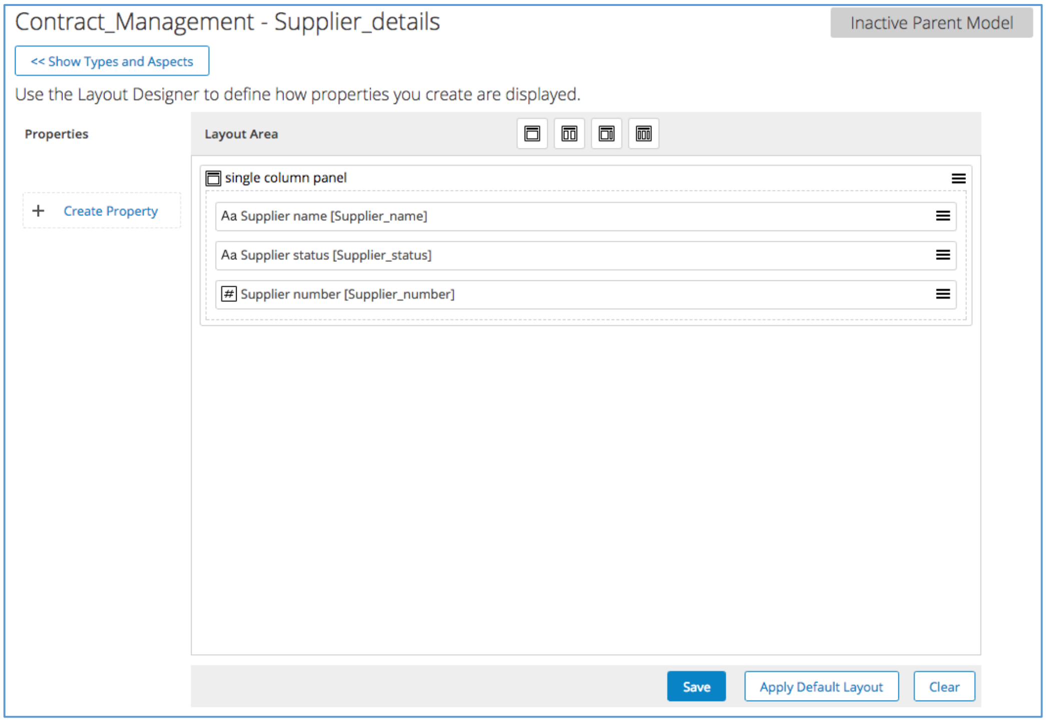


The Layout Designer opens with the aspect's properties displayed.

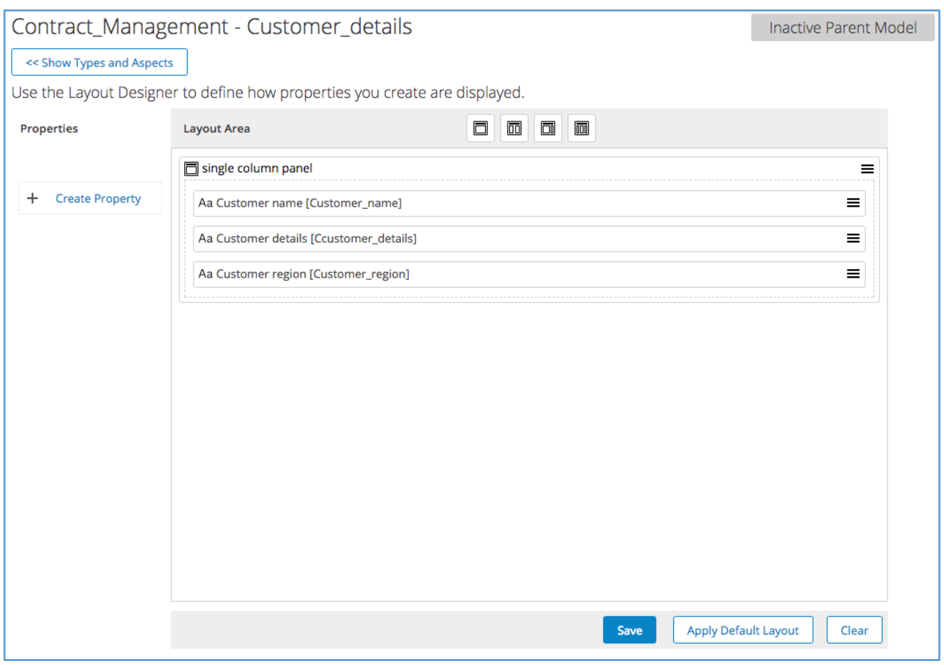


3. Drag the  first (**single column panel**) of the layout options into the area below.

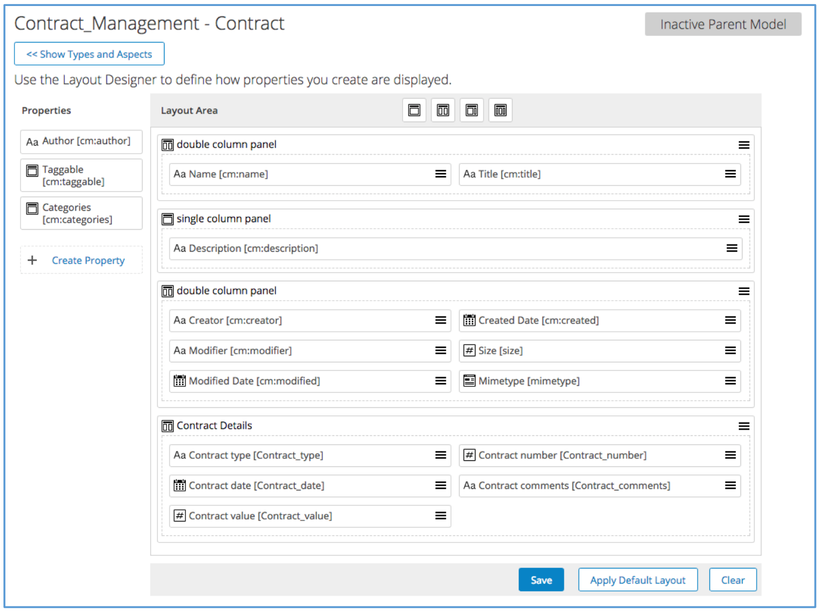
4. Drag and drop the 3 properties onto the layout area, as shown in the screenshot below.



5. Now click **Save**.
6. Now repeat these steps for the 'Customer' aspect.



7. The ‘Contract’ type includes standard attributes and the ones you have just created. We have included a layout for this with the zip file.

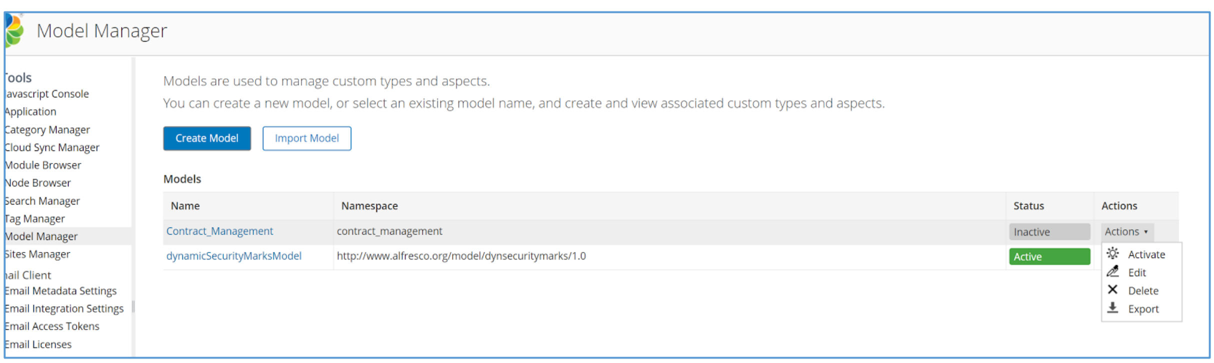


This sets how properties are displayed on forms. You can group properties and create a cleaner layout, so feel free to experiment.

4. Activating the model

The model is complete, so now you need to activate it so it can be used.

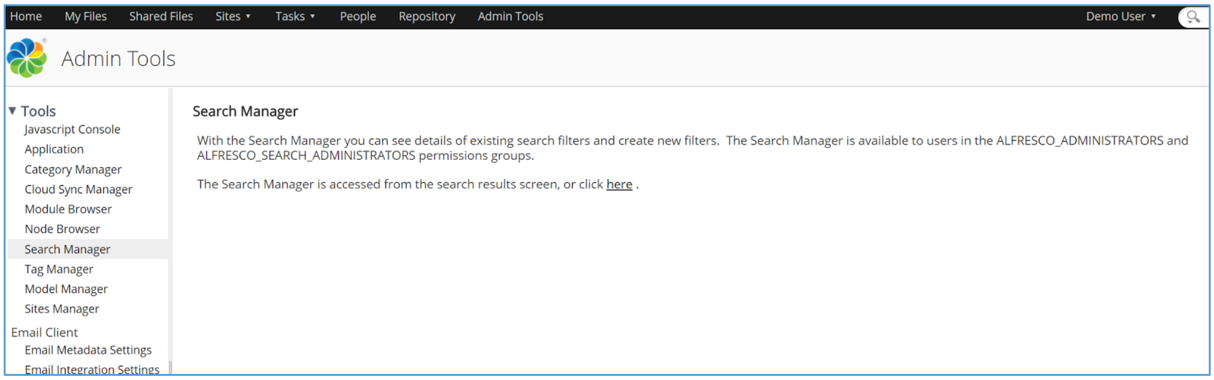
1. Go back to the Models screen.
2. Click **Actions** next to Contract_Management and select **Activate**.



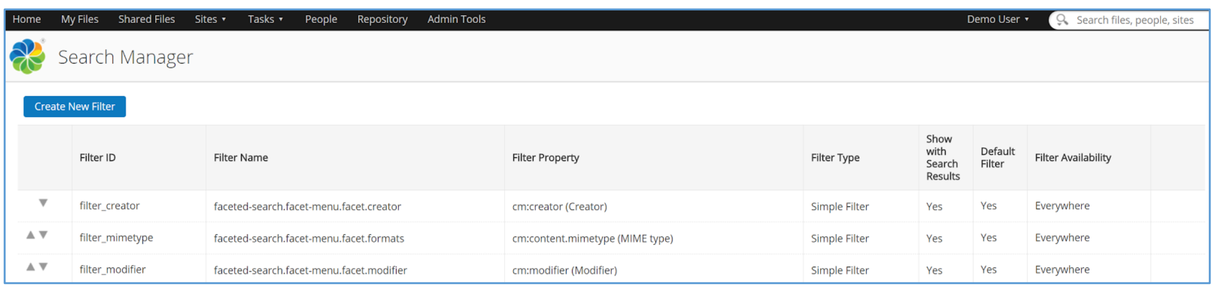
5. Creating custom search filters

Before starting to set up the process, the last thing you want to do is set up search filter options for contract type, supplier type and customer region.

1. In the **Admin tools** select **Search Manager**, then click the **click here** link.



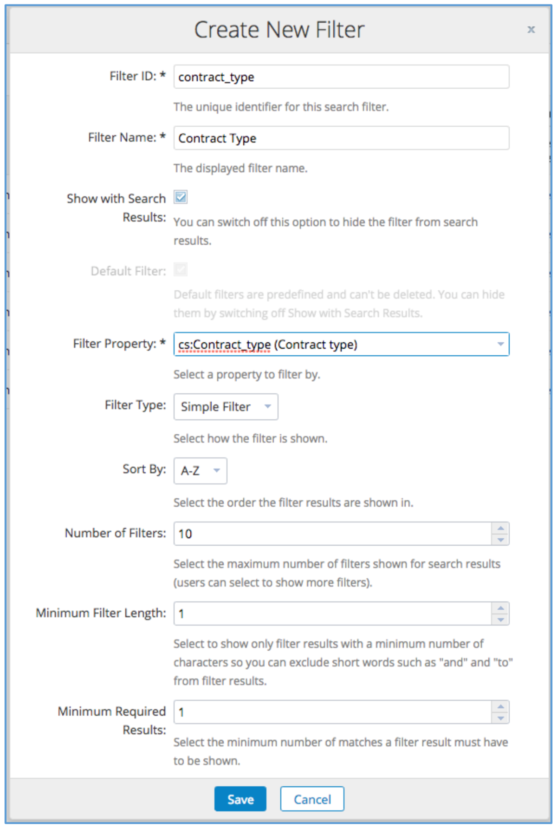
You'll see the following screen:



2. Click **Create New Filter**, and add the following information, leaving other default settings as they are.

   - Filter ID – **contract_type**
   - Filter Name – **Contract Type**
   - Filter Property – **cs:Contract_type (Contract Type)**
     (click in the Filter Property field and type ***cs*** *and your model properties should appear)*

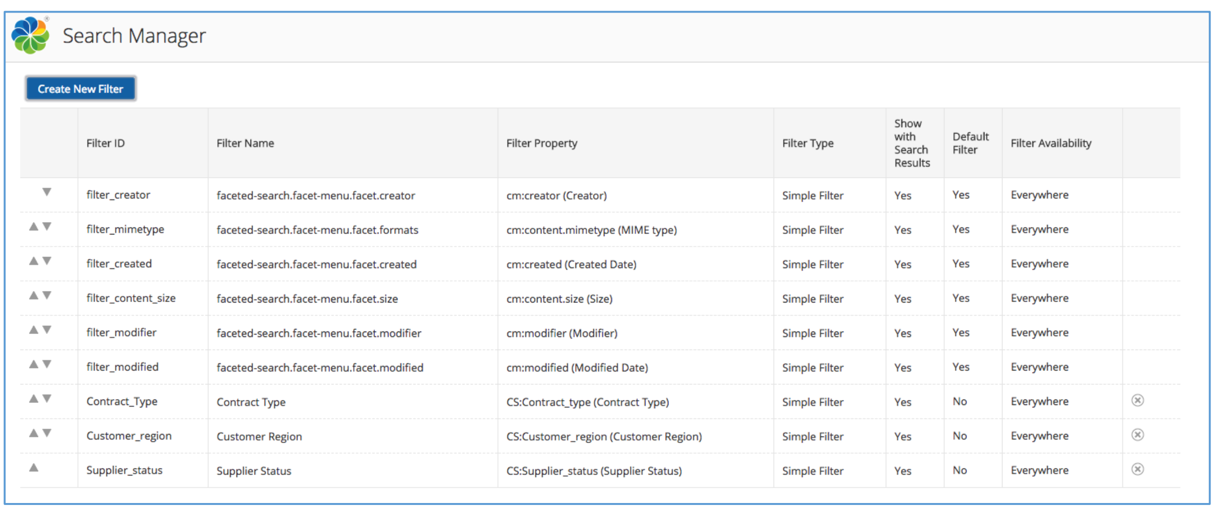
Tip: All the properties you added in the previous step start with the prefix 'cs'- so you can type 'cs' into the **Filter Property** field and the properties you added will be displayed.



3. Click **Save**.

   Now repeat this and add new search filters for 'Customer_region' and 'Supplier_status'. Make sure you change the **Filter Property** field to select the relevant property.

   The Search Manager screen should now look like this:



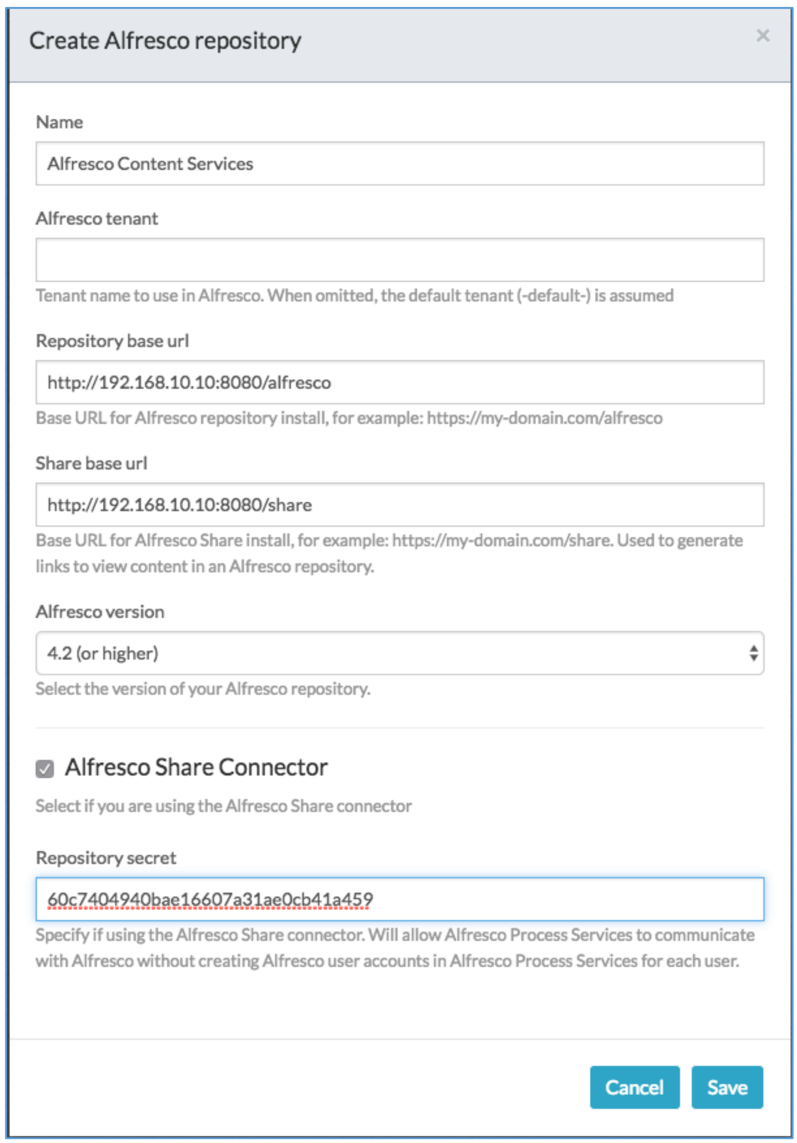
	Filter ID	Filter Name	Filter Property	Filter Type	Show with Search Results	Default Filter	Filter Availability	
▼	filter_creator	faceted-search.facet-menu.facet.creator	cm:creator (Creator)	Simple Filter	Yes	Yes	Everywhere	
▲▼	filter_mimetype	faceted-search.facet-menu.facet.formats	cm:content.mimetype (MIME type)	Simple Filter	Yes	Yes	Everywhere	
▲▼	filter_created	faceted-search.facet-menu.facet.created	cm:created (Created Date)	Simple Filter	Yes	Yes	Everywhere	
▲▼	filter_content_size	faceted-search.facet-menu.facet.size	cm:content.size (Size)	Simple Filter	Yes	Yes	Everywhere	
▲▼	filter_modifier	faceted-search.facet-menu.facet.modifier	cm:modifier (Modifier)	Simple Filter	Yes	Yes	Everywhere	
▲▼	filter_modified	faceted-search.facet-menu.facet.modified	cm:modified (Modified Date)	Simple Filter	Yes	Yes	Everywhere	
▲▼	Contract_Type	Contract Type	CS:Contract_type (Contract Type)	Simple Filter	Yes	No	Everywhere	⊗
▲▼	Customer_region	Customer Region	CS:Customer_region (Customer Region)	Simple Filter	Yes	No	Everywhere	⊗
▲	Supplier_status	Supplier Status	CS:Supplier_status (Supplier Status)	Simple Filter	Yes	No	Everywhere	⊗

You can click the arrows to move your new properties up to the top of the list (optional).

6. Configuring the Alfresco Repository

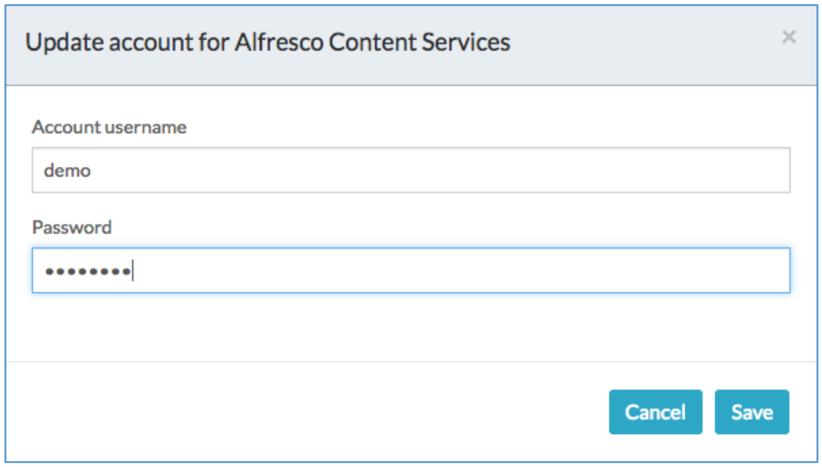
The next steps take place in Alfresco Process Services.

1. Sign in to Alfresco Process Services at http://192.168.10.10:9090/activiti-app using **demo** as the username and **alfresco** as the password.
   Note: You will see a red banner saying your license is about to expire, this is because you are within the 30 day trail period, it will not affect your trial.
2. Click **Identity Management**, then select **Tenants** then **Alfresco Repositories**.
3. Click the + Add button to create an Alfresco Repository connection with the following settings:
   - Name – **Alfresco Content Services**
   - Repository base url - http://192.168.10.10:8080/alfresco
   - Share base url - http://192.168.10.10:8080/share
   - Alfresco verions – **4.2 (or higher)**
   - Alfresco Share Connector – **selected**
   - Repository secret - **60c7404940bae16607a31ae0cb41a459**



4. Click **Save** then select **Personal**.
5. Click **Alfresco Content Services** under Alfresco Repositories.

6. Enter **demo** as the username and **alfresco** as the password then click **Save**.



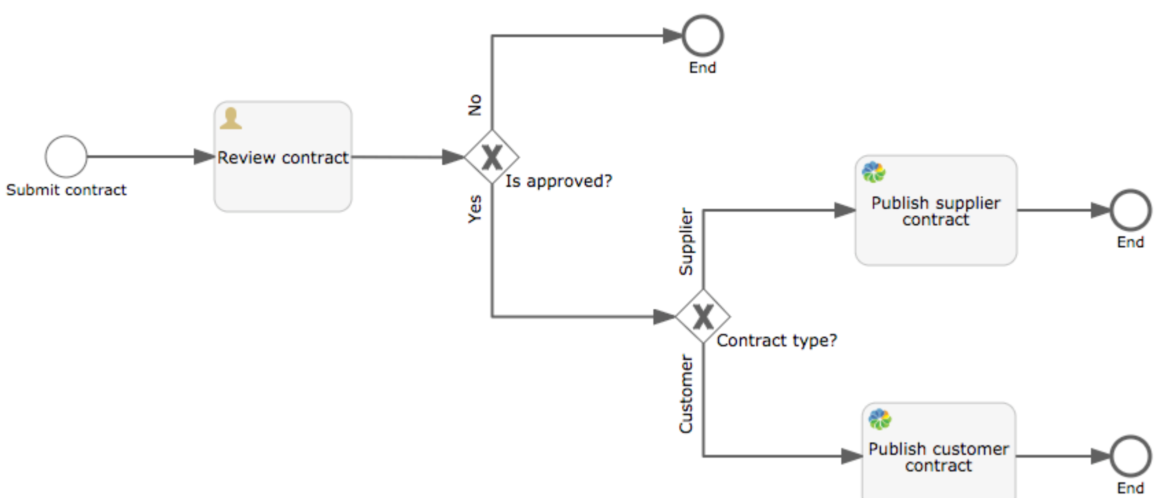
7. Designing a Contract Approval App

Now you can design a simple BPMN model and create an app to manage a contract approval process.

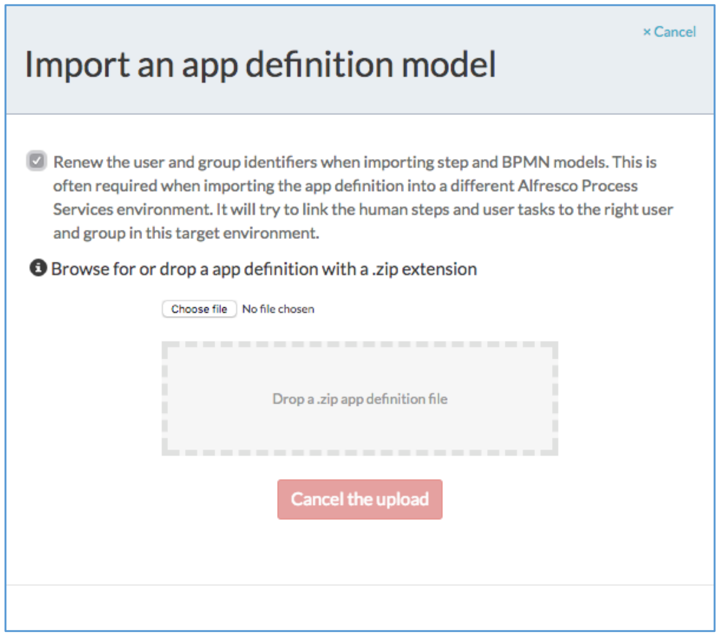
You can do this by uploading a zip, or by setting up the model yourself, see Appendix 2.

The model includes a process initiator submitting a contract for approval, a reviewer deciding if the contract is valid or not, and an automatic task to store the contract in Alfresco Content Services. The final BPMN diagram will include the following BPMN elements:

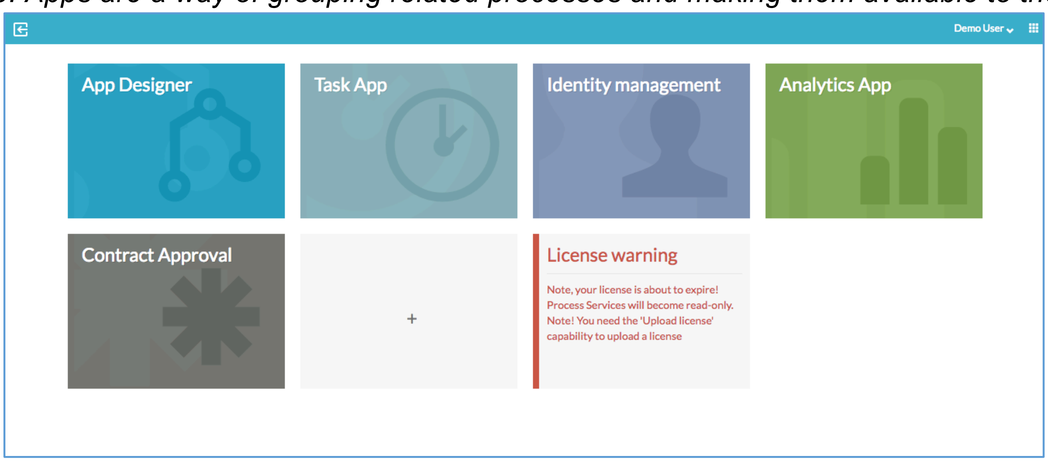
- **Start event** to trigger the process by submitting a new contract for approval
- **User task** to review the submitted contract
- **Exclusive gateway** to split the workflow depending on the reviewer approval
- **Exclusive gateway** to split the workflow depending on the contract type
- Two **Publish to Alfresco** tasks to publish the approved contract in Alfresco Content Services and update the contract custom properties as well



1. If you're not currently on the dashboard then click Back.
2. Click **App Designer** select **Apps** then **Import App**.
3. Select the **Renew the user and group identifiers** check box



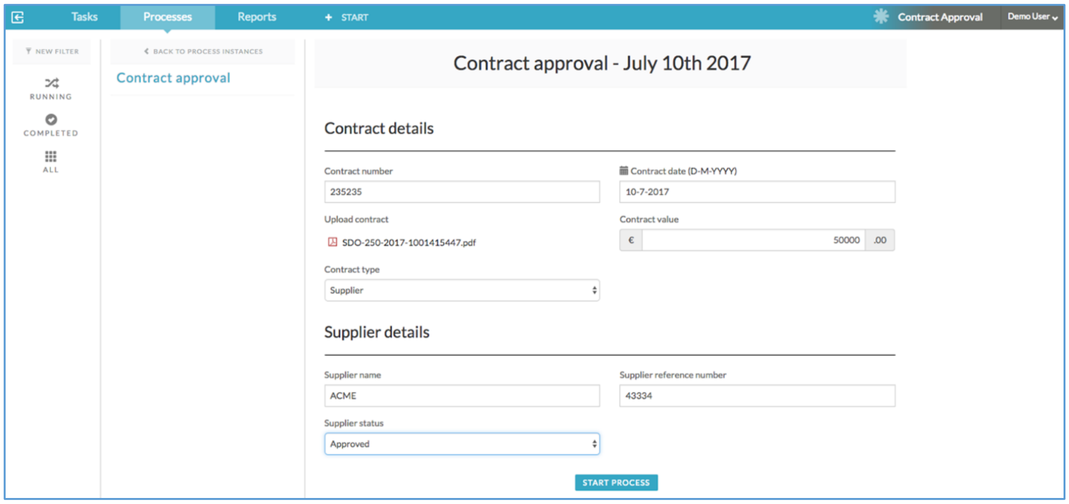
4. Choose the **ImportContractApprovalApp** zip file.
5. When it's uploaded select **Publish**. This will make the APP available on the dashboard.
6. Go back to your dashboard and click on the + tile and click **Deploy**. The app is added to your dashboard.
   Note: Apps are a way of grouping related processes and making them available to the users.



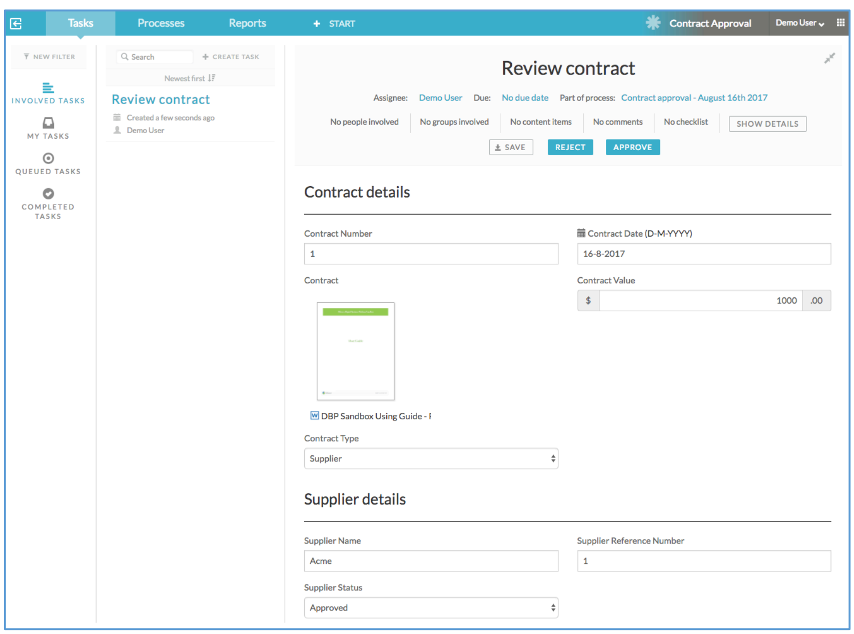
8. Using the Contract Approval App

Once you've published the Contract Approval app, it can be used to submit a new contract for approval.

1. Click the **Contract Approval** app on your dashboard then click **Start**.
2. Complete the fields with suitable selections, selecting **Supplier** as the contract type.
3. Attach a MS Word or PDF document as the contract
4. Click **Start Process** to submit a new contract for approval.

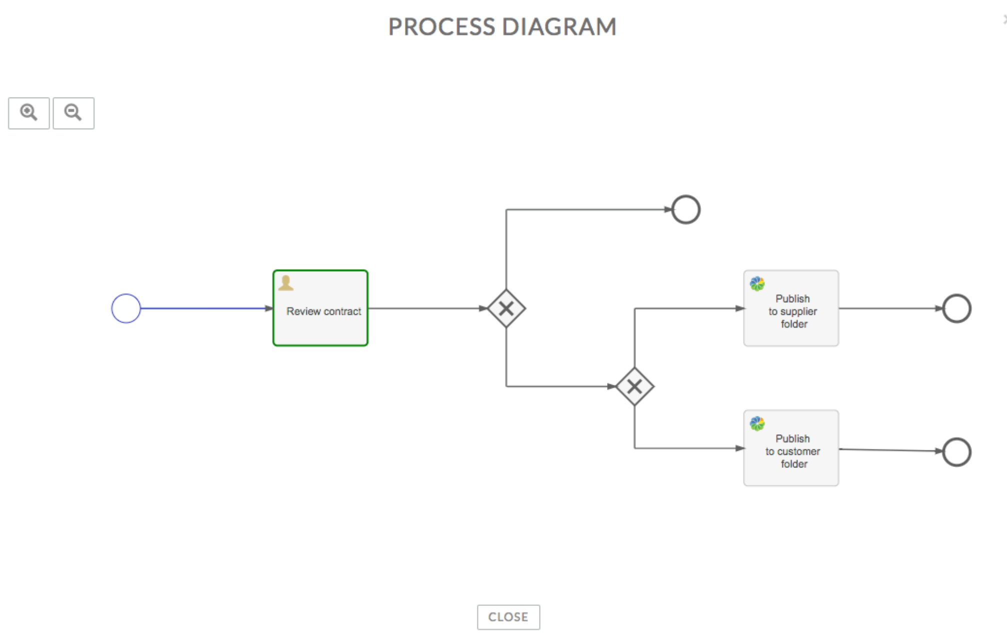


5. Click **Review Contract** task under the **TASKS** section.
   The contract is displayed for you to review.

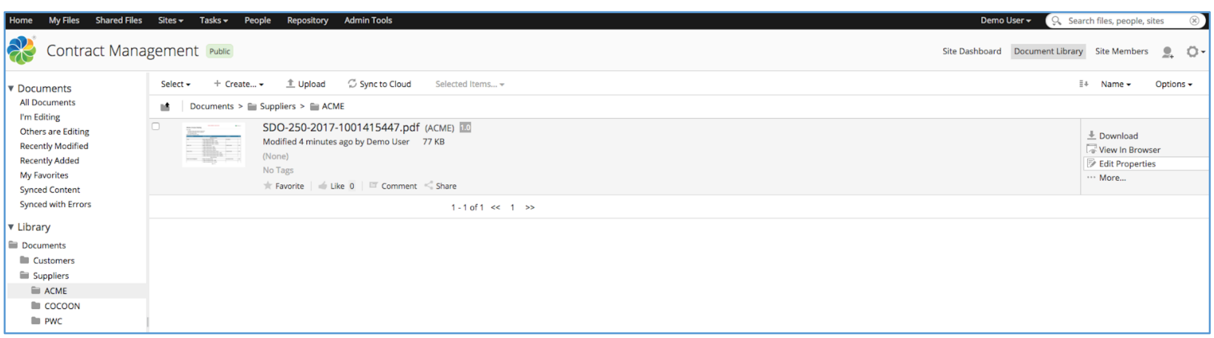


6. Click **Processes**.
   The **Contract Approval** process is shown in the Running processes section.

7. Click **Show Diagram** to see the current status of the contract approval request. The active task is highlighted in green to indicate it's at review stage.



8. Click **Close** to go back to the task.
9. Click **Review contract** the click **Approve**.
10. Now sign in to **Alfresco Content Services**.
11. Select Sites then **Contract Management**.
12. In the Document Library open the Supplier folder and you'll see that the supplier contract you just approved has been added.
13. Click on the contract to see a preview, and in the Properties section all the custom metadata from the custom model created earlier is displayed.



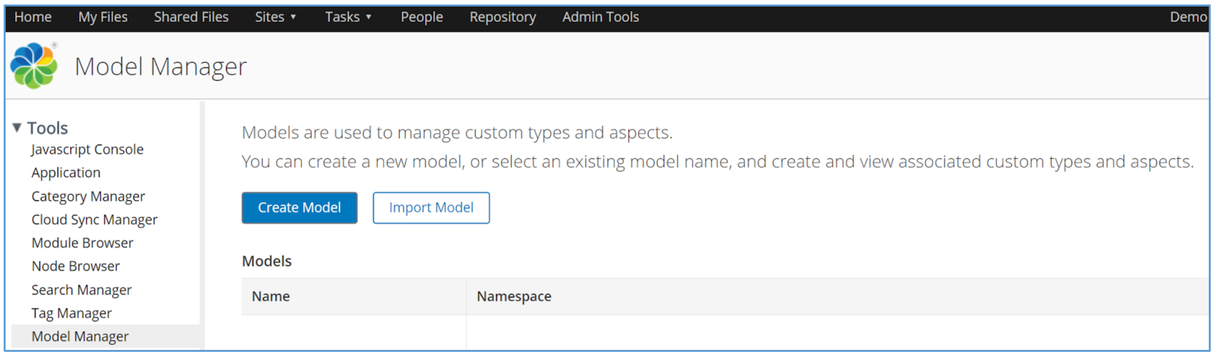
Tip: If you type the file name into the search box and press enter, you'll see that the search filters you set up earlier are available.

Appendix

If you prefer to set up your content model and process model manually, then follow the sections below.

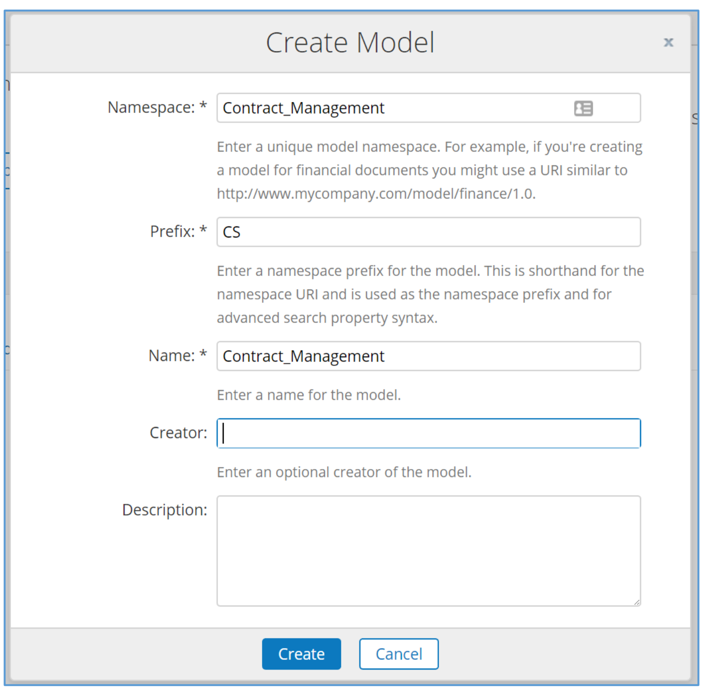
1. Manually creating content models

1. Click **Admin tools** on the toolbar, then select **Model Manager** from the options.



2. Next click **Create Model**.
3. Fill out the form as shown below and click **Create**.

- Namespace: **Contract_Management**
- Prefix: **CS**
- Name: **Contract_Management**



Having created a model you can now add *types* and *aspects* to it.

- **Types** - A custom type enumerates the properties and relationships that a file of that type can support

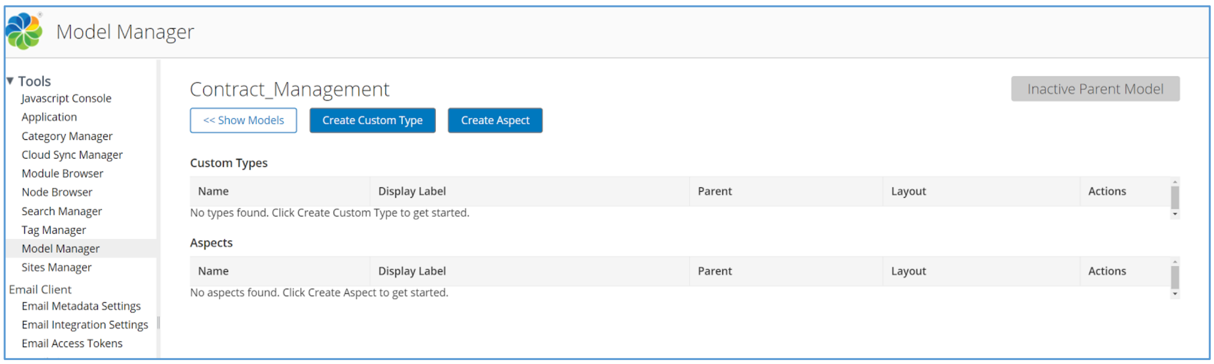
- **Aspects** - An aspect is a collection of properties that can encapsulate both data and behaviour

You can read more about this in [Content modeling with Model Manager].

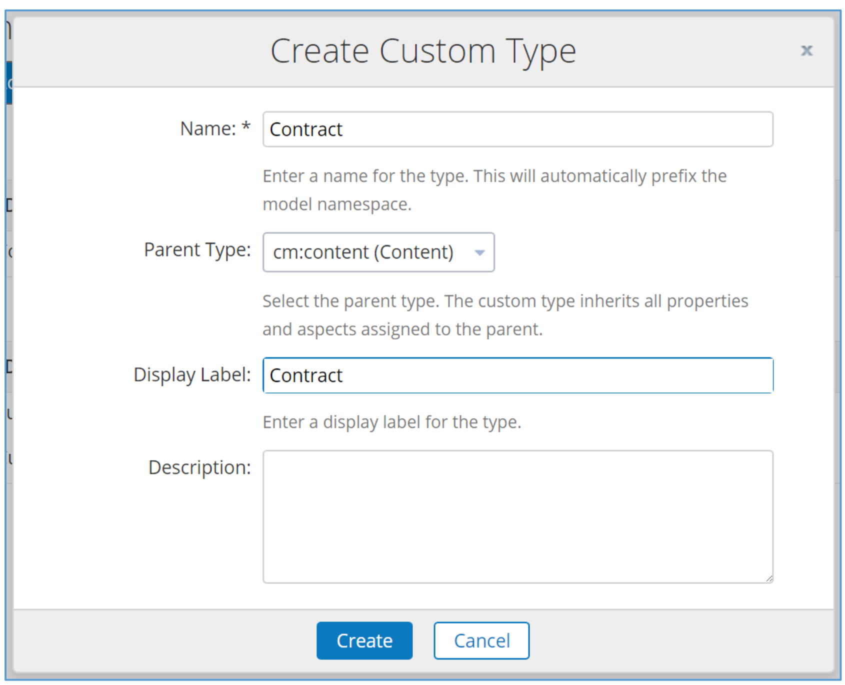
We'll create:

- One type - This will define the basic contract information to be stored as metadata with every contract document.
- Two aspects - These will define the metadata that will be added to files depending on the contract type ("supplier" or "customer" in this example

4. Click on the Contract_Management model name then click **Create Custom Type**.

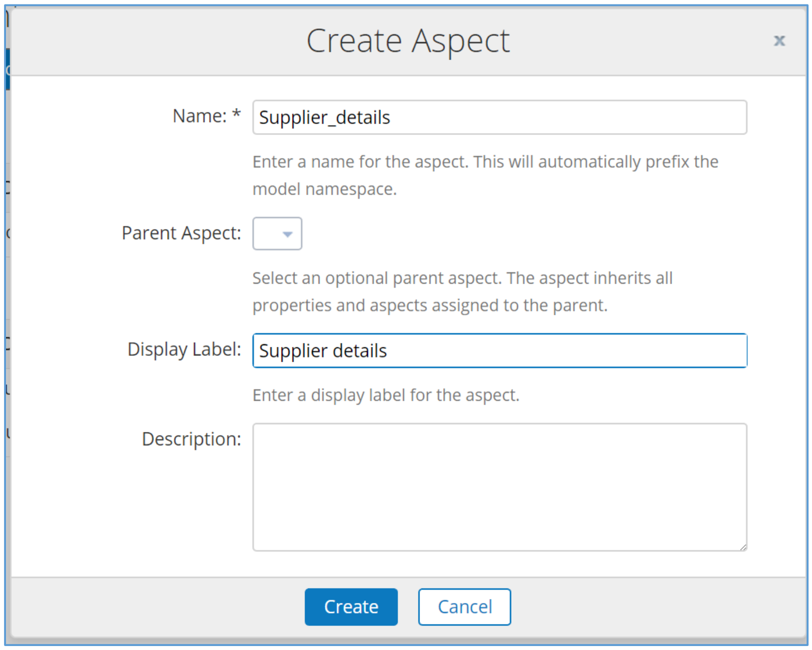


5. Enter the details as shown below and click **Create**.
   - Name: **Contract**
   - Parent Type: **CM:content (Content)**
   - Display Label: **Contract**

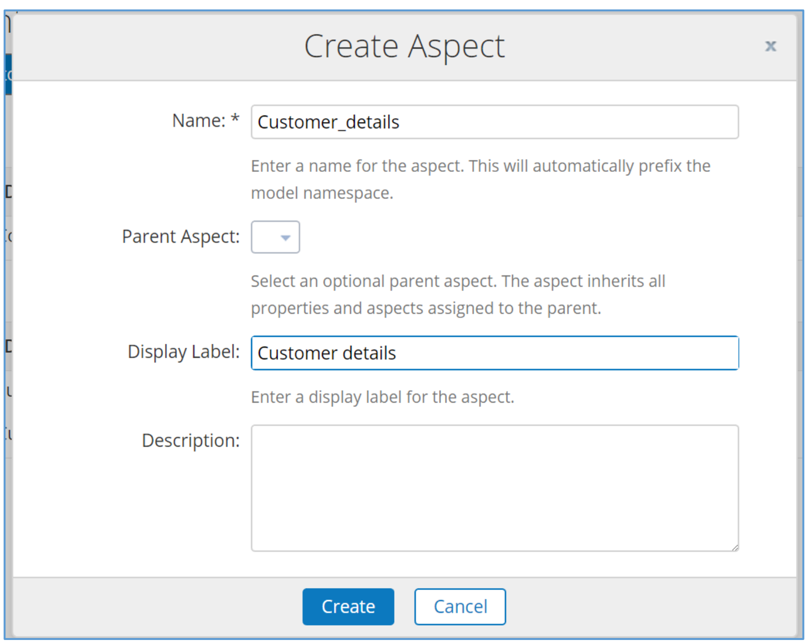


The next step is to create two aspects.

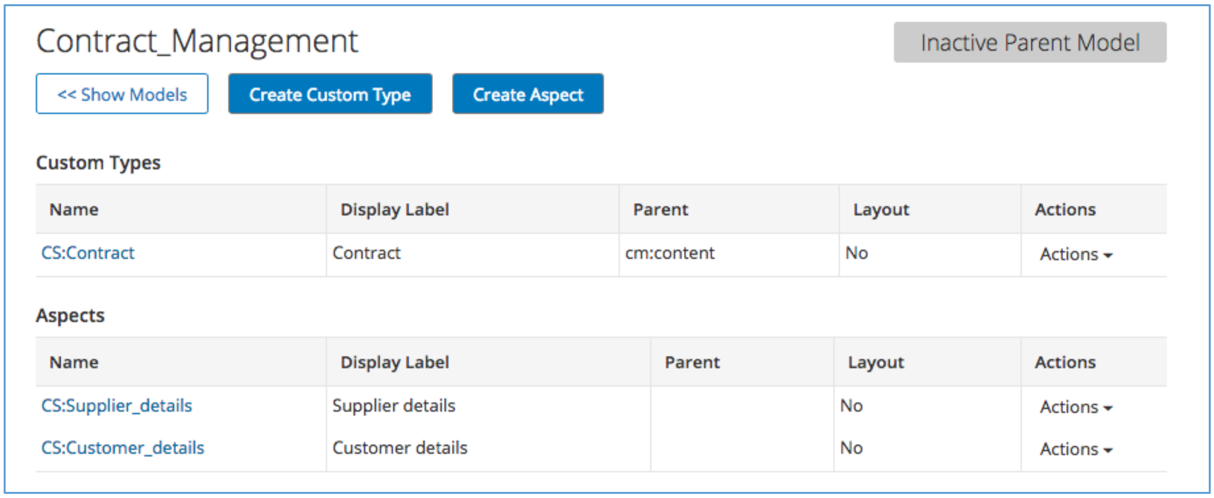
6. Click **Create Aspect**, enter the details shown below then click **Create**:
    - Name: **Supplier_details**
    - Display Label: **Supplier details**



7. Now create another aspect, using the following details:
    - Name: **Customer_details**
    - Display Label: **Customer details**



When you've created these two aspects the contracts model will look like this:



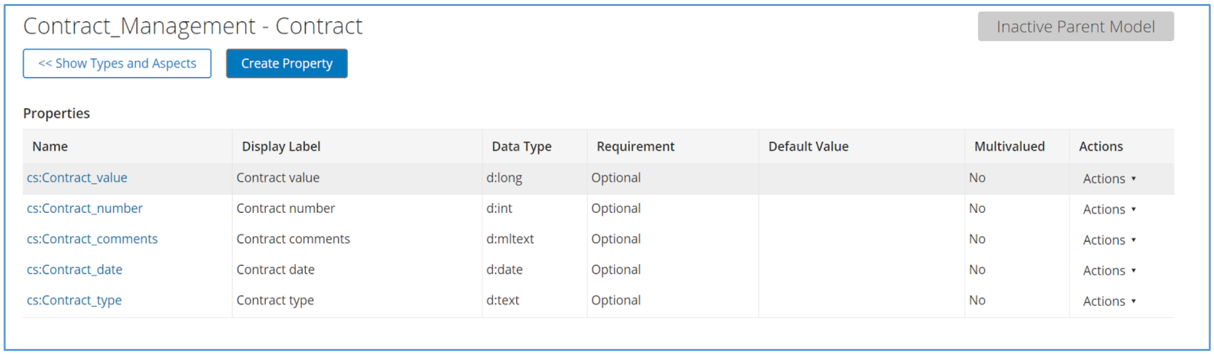
Now it's time to add some properties, starting with properties within the type CS:Contract.

8. Click **cs:Contract**.
   Now you can add multiple properties to the Type.

9. Click **Create Property** and create a property using the details in the first row of the table below, leaving other fields at the default setting.
   When you're done, click **Create and Start Another**, and repeat until you've created properties for each table row. When you've entered details of the final row, click **Create**.

Name	Display Label	Data type	Constraint	Indexing
Contract_value	Contract Value	d:long	None	Basic
Contract_number	Contract Number	d:int	None	Basic
Contract_comments	Contract Comments	d:mltext	None	Free Text
Contract_date	Contract Date	d:date	None	Basic
Contract_type	Contract Type	d:text	List of Values -Supplier -Customer	List of Values – Partial Match

When you're done, the properties table should look as shown below (the property order might be different).



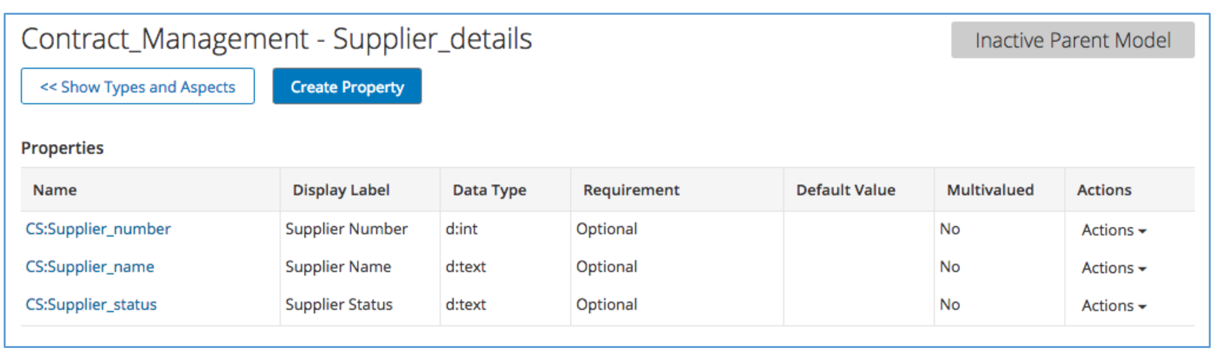
Name	Display Label	Data Type	Requirement	Default Value	Multivalued	Actions
cs:Contract_value	Contract value	d:long	Optional		No	Actions
cs:Contract_number	Contract number	d:int	Optional		No	Actions
cs:Contract_comments	Contract comments	d:mltext	Optional		No	Actions
cs:Contract_date	Contract date	d:date	Optional		No	Actions
cs:Contract_type	Contract type	d:text	Optional		No	Actions

Now that the type's properties are set up, you can do the same for the aspects.

10. Click **Show Types and Aspects** then click on **CS:Supplier_detail**.
11. Click **Create Property** and create a property using the details in the first row of the table below, leaving other fields at the default setting.
    When you're done, click **Create and Start Another**, and repeat until you've created properties for each table row. When you've entered details of the final row, click **Create**.

Name	Display Label	Data type	Constraint	Indexing
Supplier_name	Supplier Name	d:text	None	Free Text
Supplier_number	Supplier Number	d:int	None	Basic
Supplier_status	Supplier Status	d:text	List of Values -Approved -New	List of Values – Partial Match

When you're done, the properties table should look as shown below (the property order might be different).



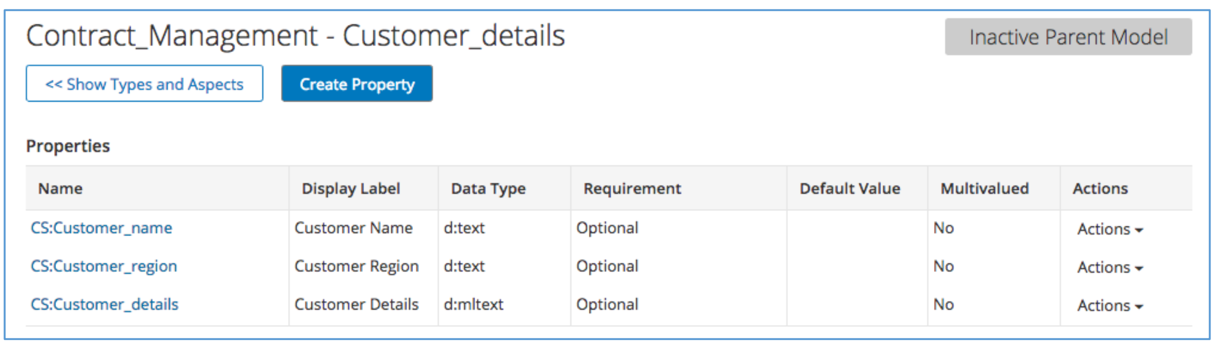
Name	Display Label	Data Type	Requirement	Default Value	Multivalued	Actions
CS:Supplier_number	Supplier Number	d:int	Optional		No	Actions
CS:Supplier_name	Supplier Name	d:text	Optional		No	Actions
CS:Supplier_status	Supplier Status	d:text	Optional		No	Actions

12. When you're done click **Show Types and Aspects** then click the **CS:Customer_detail** aspect.

13. Click **Create Property** and create a property using the details in the first row of the table below, leaving other fields at the default setting.
When you're done, click **Create and Start Another**, and repeat until you've created properties for each table row. When you've entered details of the final row, click **Create**.

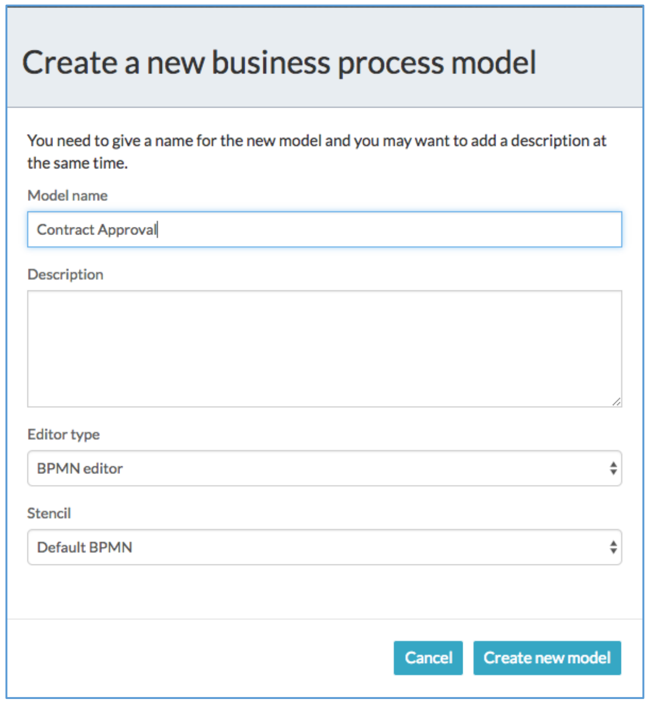
Name	Display Label	Data type	Constraint	Indexing
Customer_name	Customer Name	d:text	None	Free Text
Customer_details	Customer Details	d:mltext	None	Free Text
Customer_region	Customer Region	d:text	List of Values - Europe - South America - North America - Africa - Asia	List of Values – Partial Match

When you're done, the properties table should look as shown below (the property order might be different).



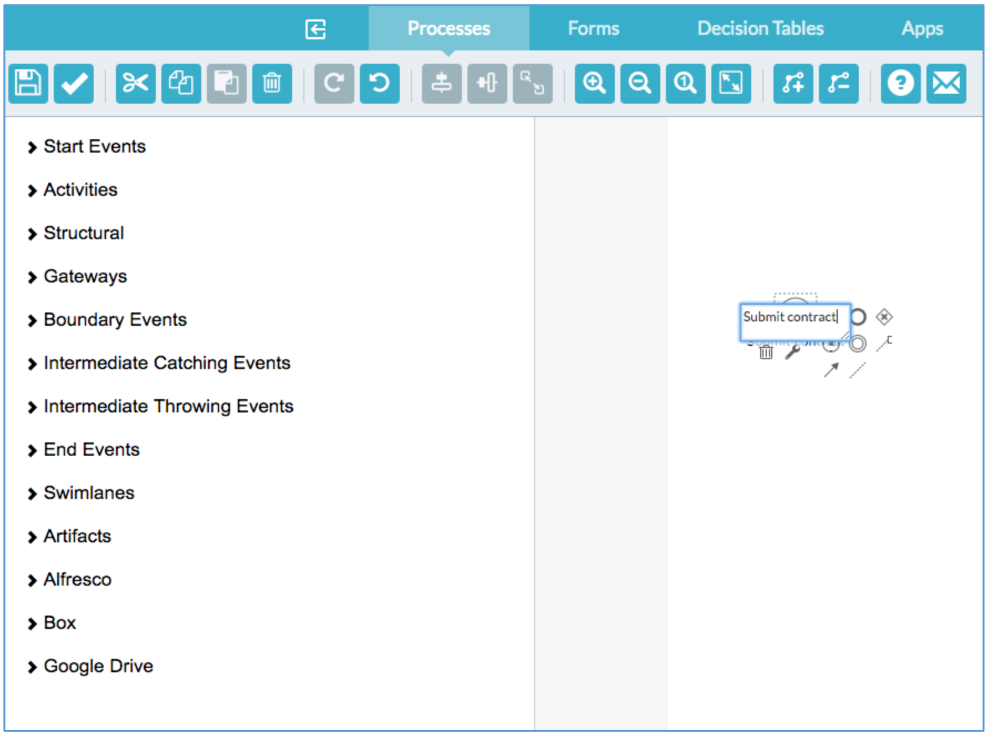
2. Manually designing a process model

1. Select **App Designer** on the Alfresco Process Services dashboard and click **Create Process**.
2. Enter the following details then click **Create new model**:
   - Model Name – **Contract Approval**
   - Editor Type – **BPMN editor**
   - Stencil – **Default BPMN**



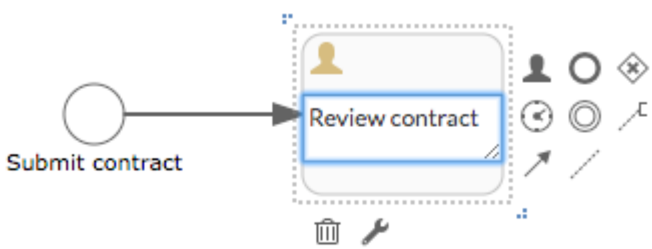
Tip: If this is the first time you have used the BPMN modeler, a tutorial will be displayed. You can watch this or close it.

3. Double-click on the **Start event** (displayed as a circle) and type **Submit contract**.



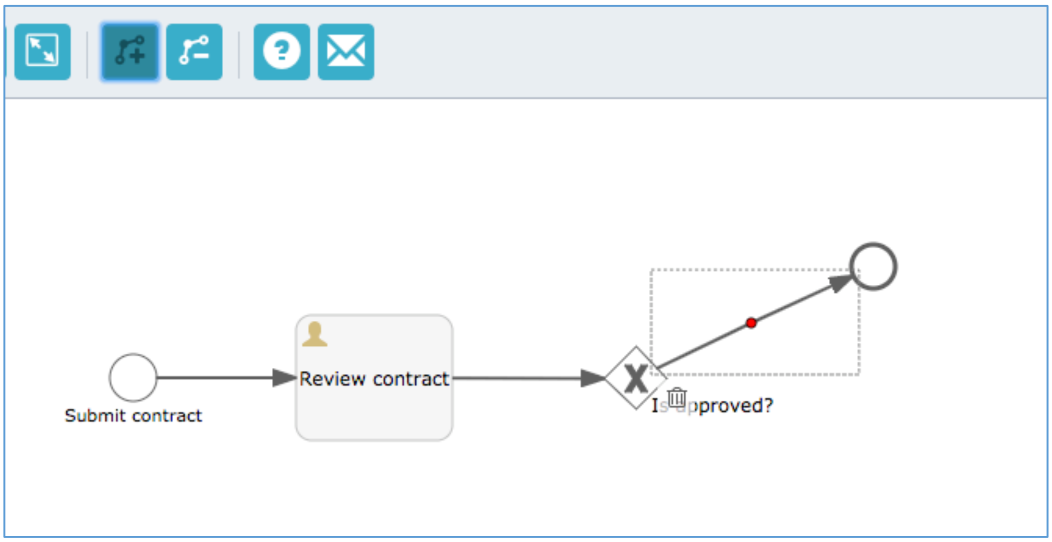
7. Click the **Start event** element and select the User task icon and drag and drop it to the right. It will automatically add a sequence flow with the user task connected to it.

8. Double-click the task element and type **Review contract**.

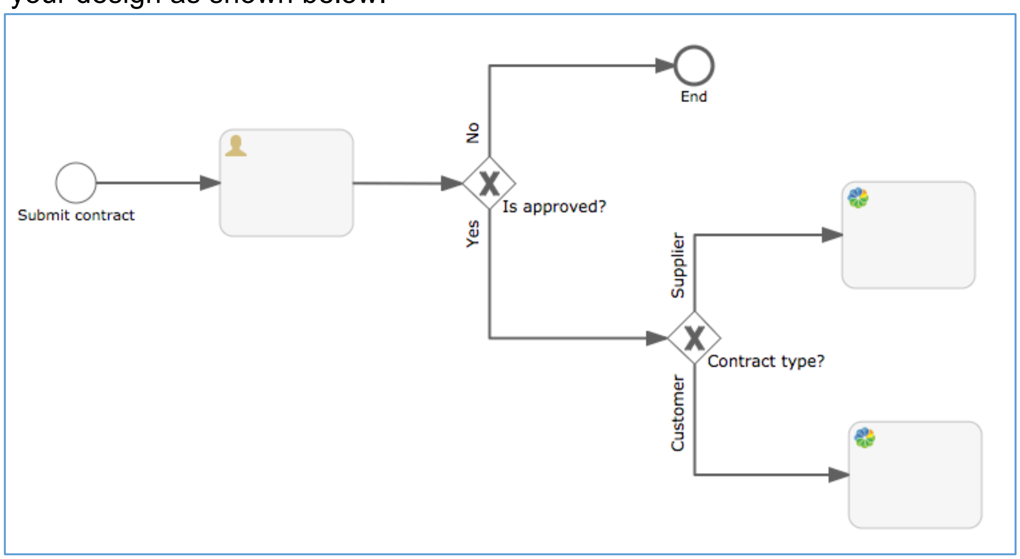


9. Click the task element and select the **Gateway** icon and drag and drop it to the right.
10. Double-click it and type **Is approved?**.
11. Click on the element and drag and drop an End event diagonally up and right.

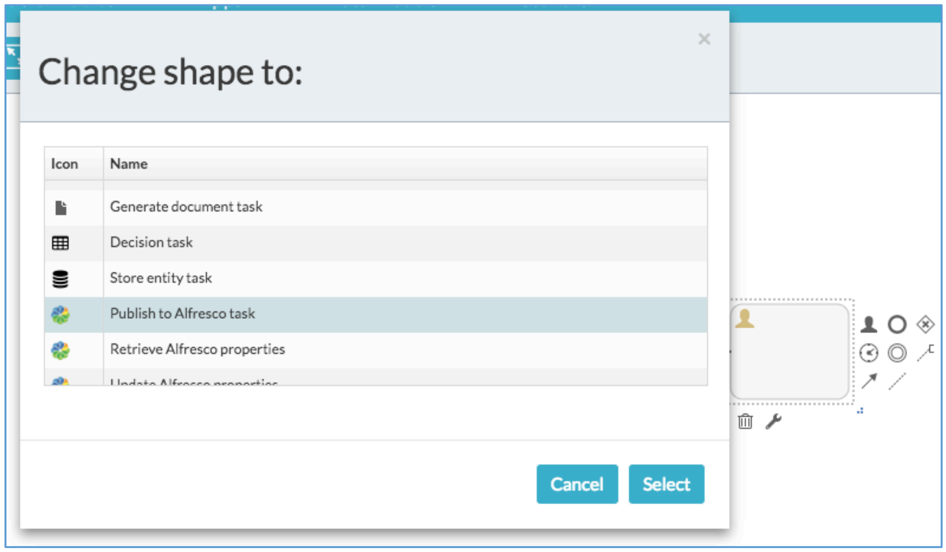
Tip: To bend a sequence flow, just select it and click on the appropriate bending function as shown here.



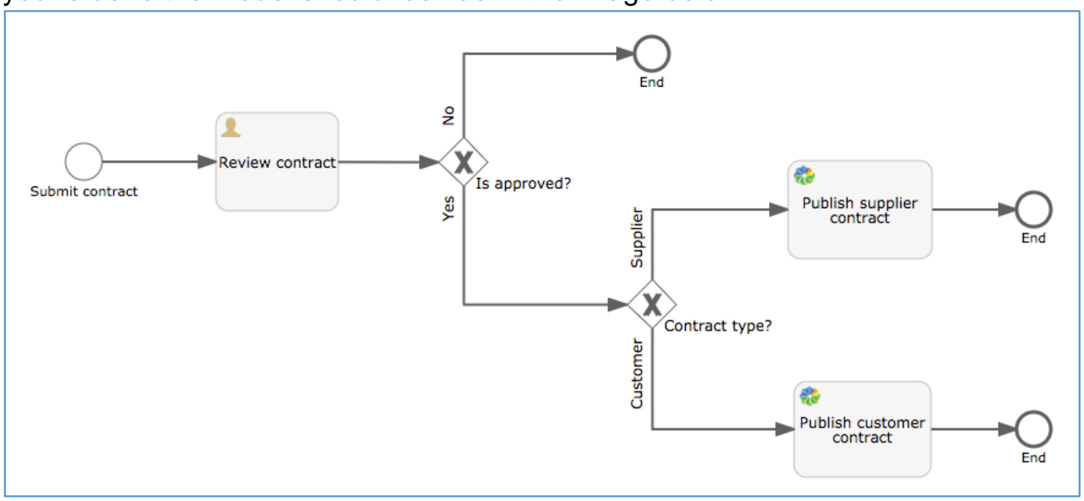
12. Continue your design as shown below.



Tip: To add a **Publish to Alfresco** task, just drag and drop a User task and click on the tool icon to change its type.



When you're done the model should look as in the image below.

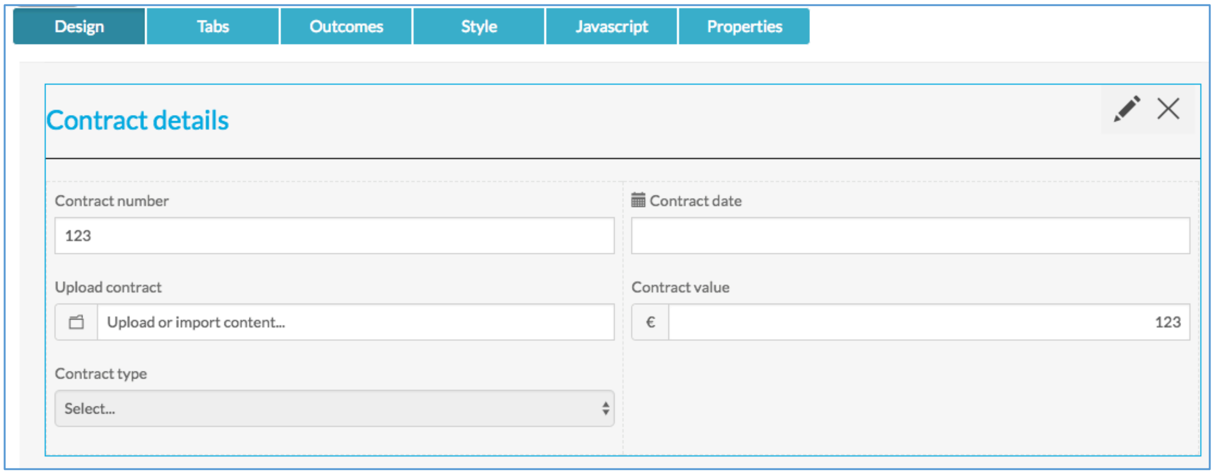


2.1 Designing a form to submit a contract

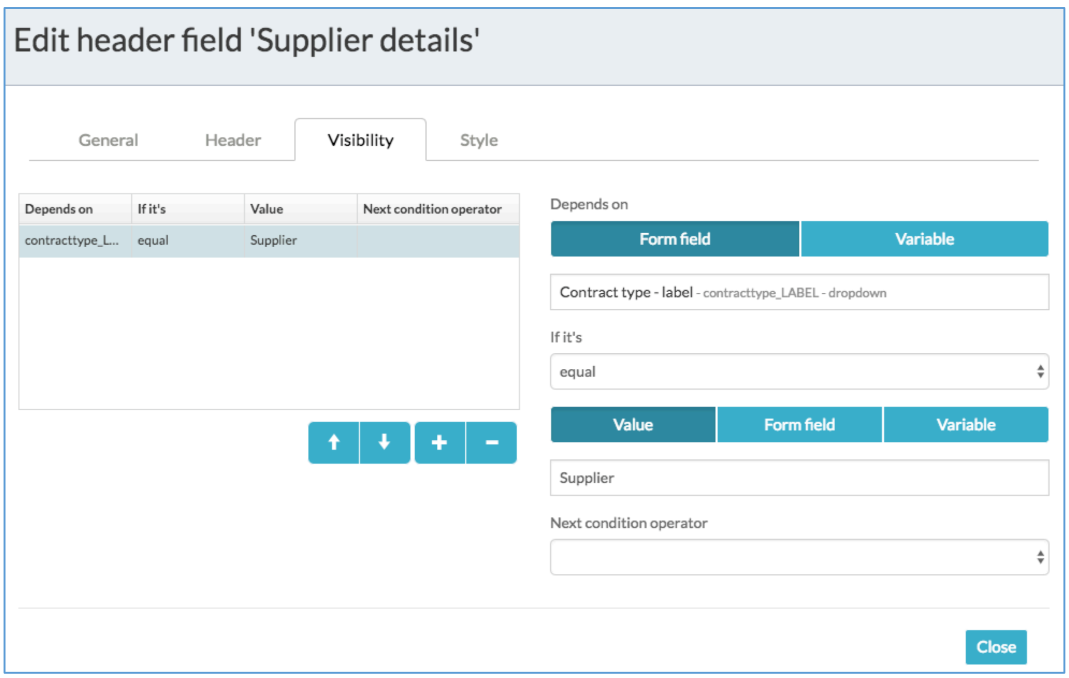
Next you need to design the form for the process initiator to submit a contract for approval.

1. Click the **Start event** of your process model (the one called Submit Contract).
2. On the properties panel at the bottom, click on the **Referenced form** property.
3. Click **New form** and name it **Contract submission**, then click **Create form**.
4. From the form controls on the left side drag and drop a **Header** onto the design area.
5. Hover over the **Label** and click the Edit icon.
6. Type **Contract details** as the Label and click **Close**.
7. Complete the form by adding more fields by dragging and dropping the following stencils onto the form:

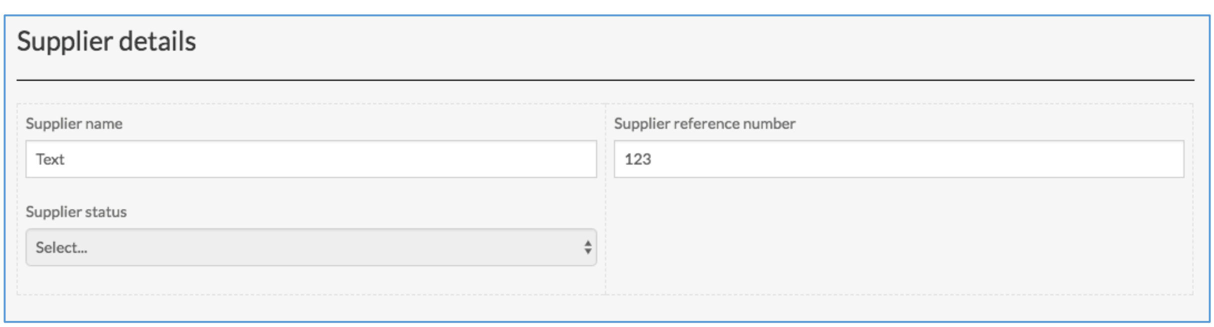
- **Number** named **Contract number**
- **Date** named **Contract date**
- **Amount** named **Contract value** (you also need to click the **Amount** tab after you've entered the name and enter your preferred currency, for example $ or £)
- **Attach File** named **Upload contract** (you also need to click the **Options** tab after you've entered the name and add two options, Supplier and Customer)
- **Dropdown** named **Contract type**



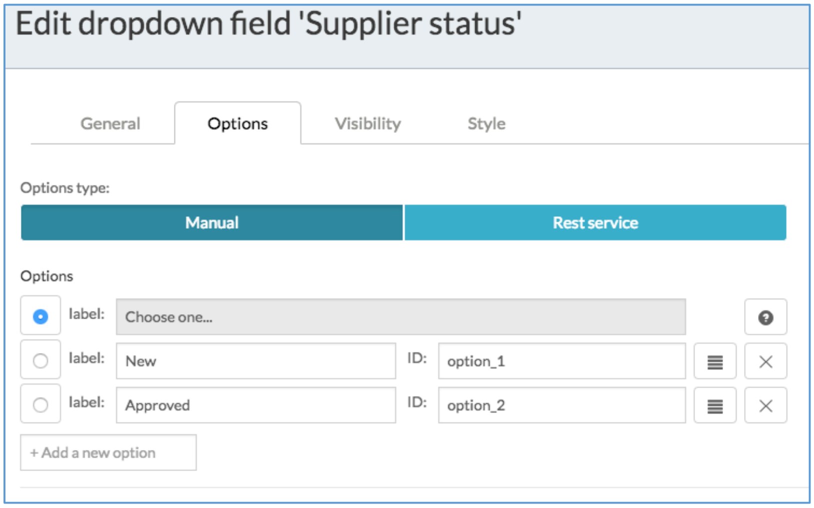
8. Add another **Header** and click the Edit icon.
9. Type **Supplier details** as the Label.
10. Click the **Visibility** tab then click Add.
11. Select **Contract type – label**, in the first field, **equal** in the second, and type **Supplier** in the third, then click **Close**.



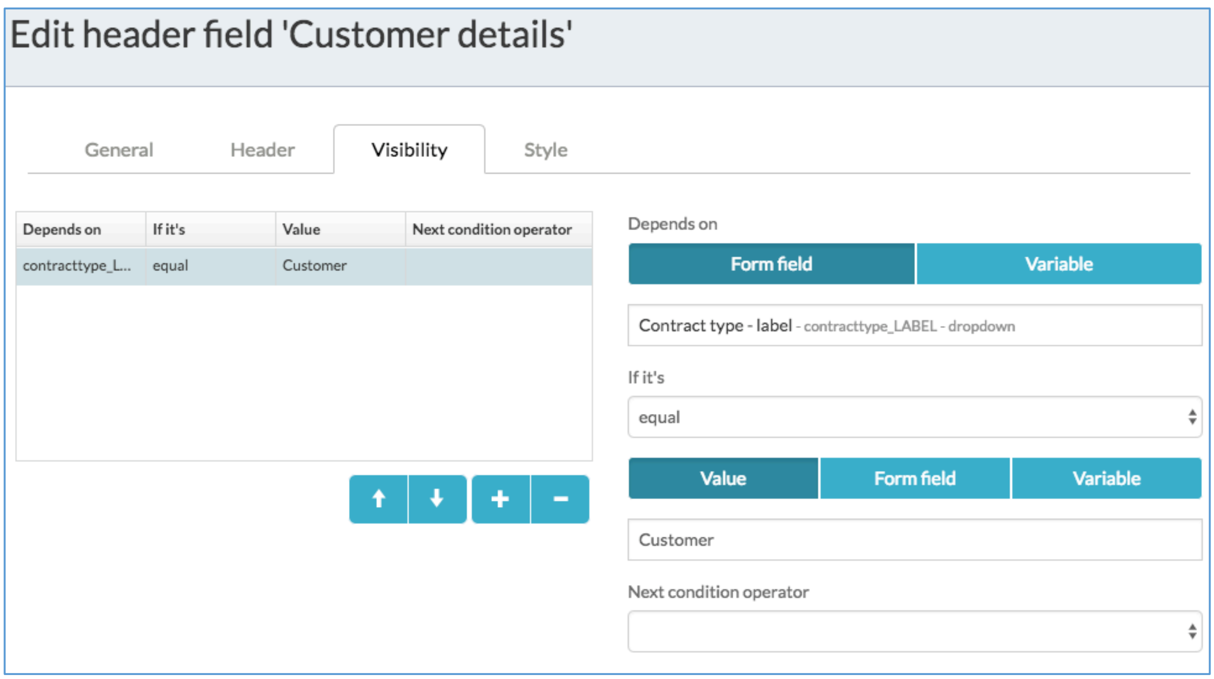
12. Add a **Text**, a **Number** and a **Dropdown** control inside the **Supplier details** header as shown below.



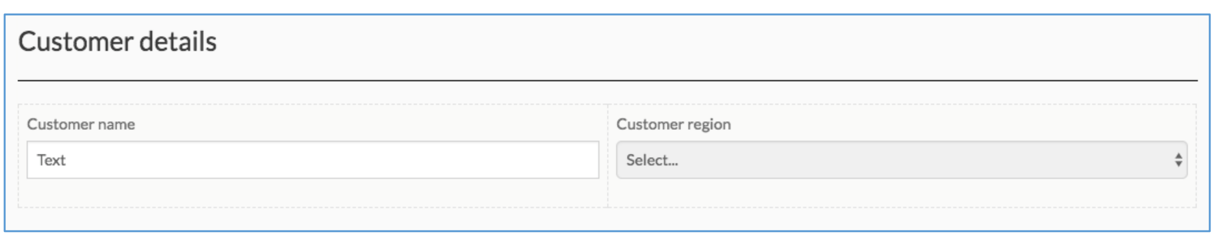
13. Edit the Dropdown list as shown below.



14. Add another **Header** and name it **Customer details**.
15. Edit the Header properties to make it only visible when “Customer” is the selected option of the “Contract details” **Dropdown** list.



16. Add a **Text** and a **Dropdown** control as shown below.



17. Edit the **Dropdown** with the following regions:
    - Europe
    - South America
    - North America
    - Africa
    - Asia

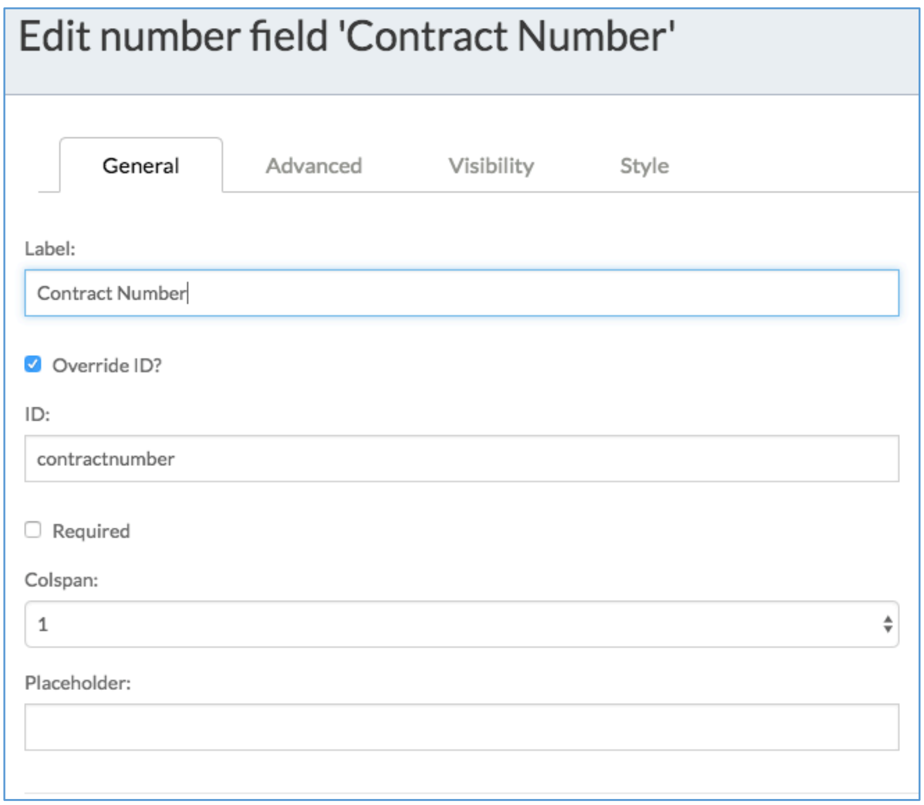
18. When you done click Save to save the form.

2.2 Designing a form to review contracts

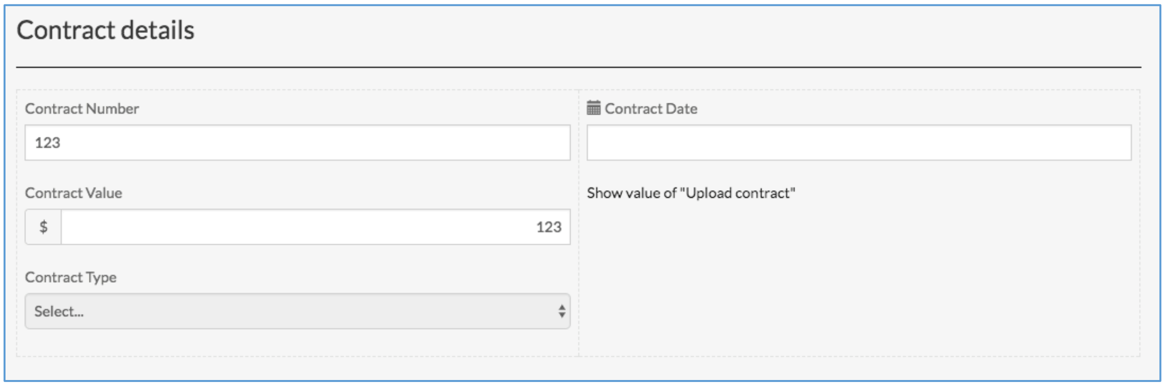
Next you can design the form for the reviewer to review the contract submitted by the process initiator.

This form is very similar to the previous one. You need to drag and drop three **Headers** corresponding to the 3 sections: “Contract details”, “Supplier details” and “Customer details”.

So the reviewer can visualize and possibly modify the previously submitting information, you need to apply the same ID that you defined for each of the fields. For example, here is the configuration to display the “Contract number” and make it editable for the reviewer.



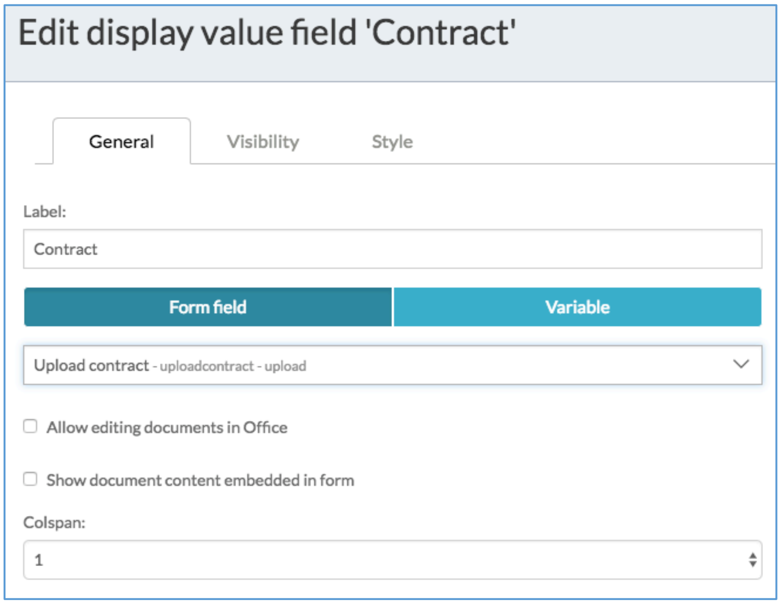
Here is the “Contract details” header for the reviewer.



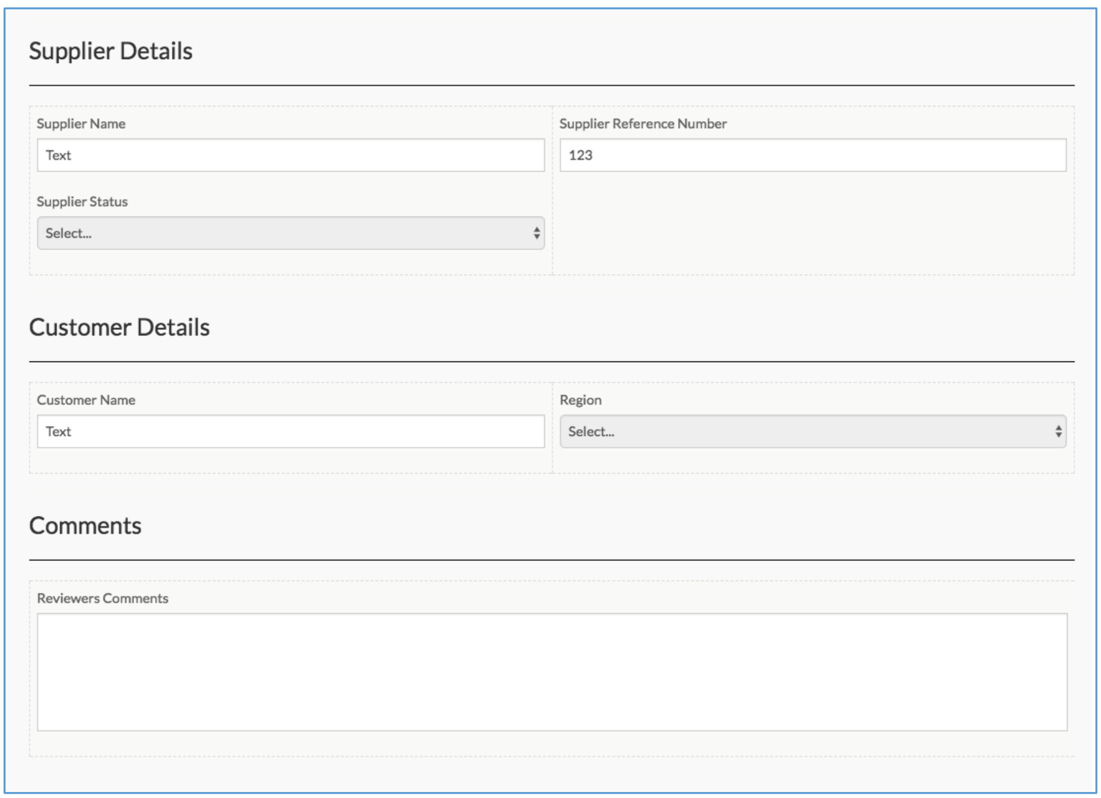
Use the details below.

Label	ID	Type
Contract Number	contractnumber	Number
Contract Date	contractdate	Date
Contract Value	contractvalue	Amount
Upload Contract	uploadcontract	Display Value
Contract Type	contracttype	Dropdown (Supplier/Customer)
Supplier Name	suppliername	Text
Supplier Reference Number	supplierreferencenumber	Number
Supplier Status	supplierstatus	Dropdown (New/Approved)
Customer Name	customername	Text
Region	region	Dropdown (Europe/South America/North America/Africa/Asia)

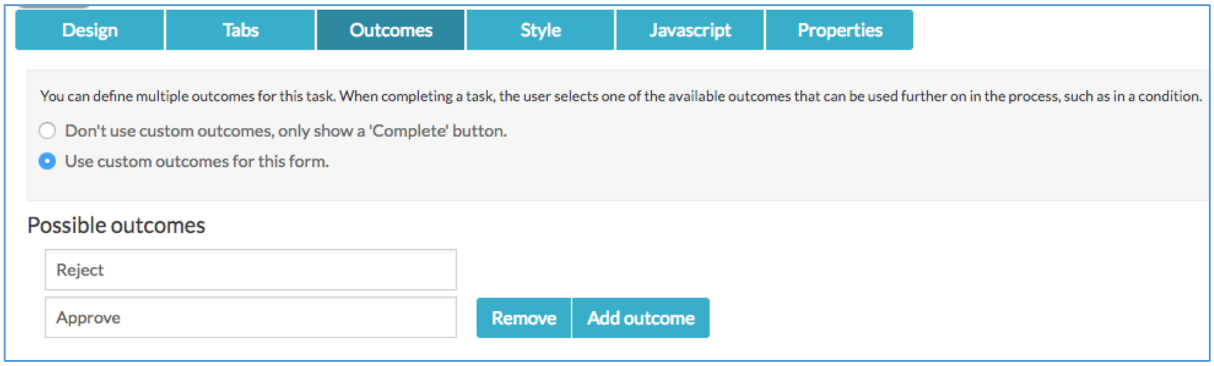
To display the contract document previously attached, you need to use the **Display value** stencil and configure it as described here.



Continue the design by adding the supplier and customer sections. Then add an additional section (header called Comments) and add a Multiline text for the reviewer to leave comment.

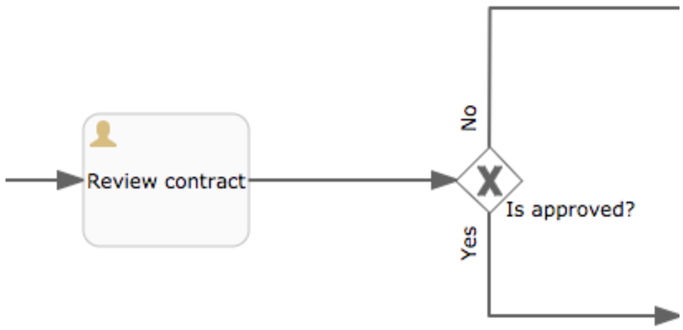


Configure the visibility of the supplier and customer section as we did for the previous form. Select the **Outcome** tab and add two custom outcomes: “Reject” and “Approve”.

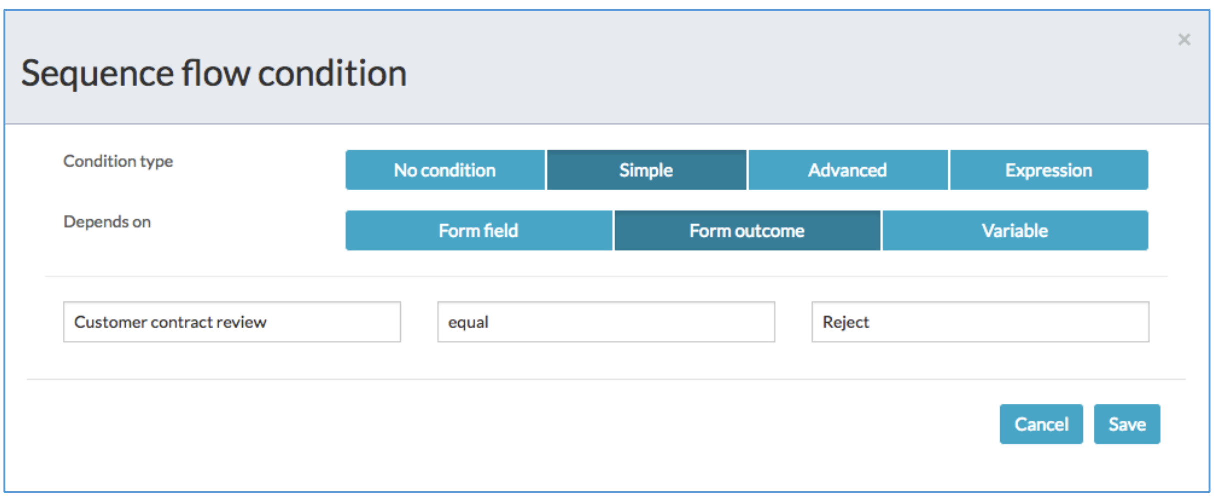

Design
Tabs
Outcomes
Style
Javascript
Properties
You can define multiple outcomes for this task. When completing a task, the user selects one of the available outcomes that can be used further on in the process, such as in a condition.
Don't use custom outcomes, only show a 'Complete' button.
Use custom outcomes for this form.
Possible outcomes
Reject
Approve
Remove
Add outcome

2.3. Configuring the sequence flow conditions based on contract review

Now that you've designed the form for the contract reviewer, you can define the conditions for the sequence flows exiting the exclusive gateway.

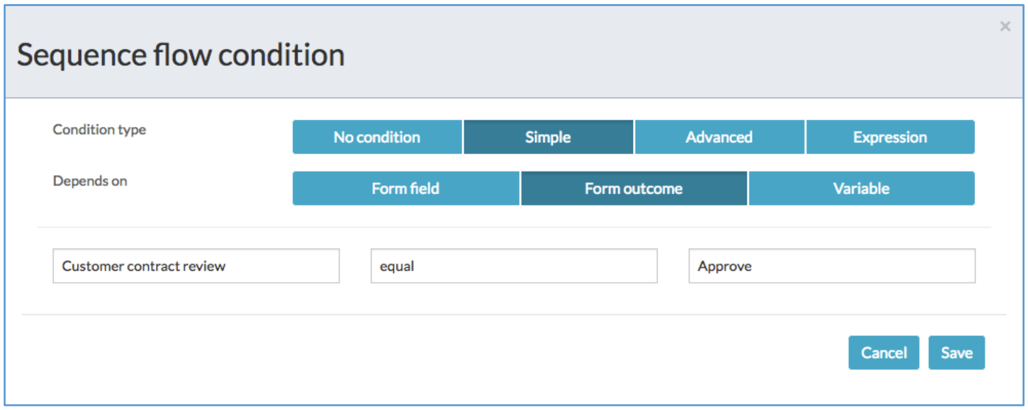


1. Click on the sequence flow for the rejected path ("No").
2. On the properties panel at the bottom, click on the **Flow Condition** property.
3. Click **Simple**, then **Form Outcome** and enter the following details:
    - Customer contract review
    - equal
    - Reject



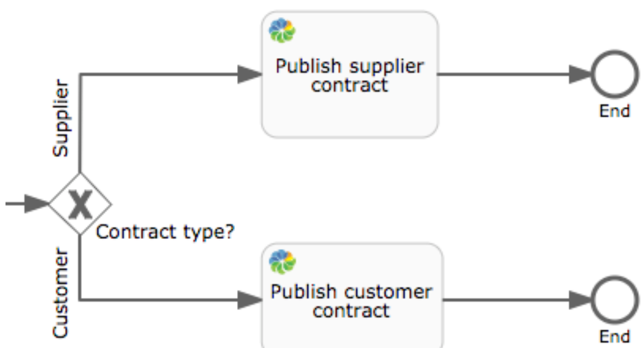
4. Select the sequence flow for the approved path ("Yes") and and click the **Flow Condition** property.

5. Click **Simple**, then **Form Outcome** and enter the following details:
    - Customer contract review
    - equal
    - Approve

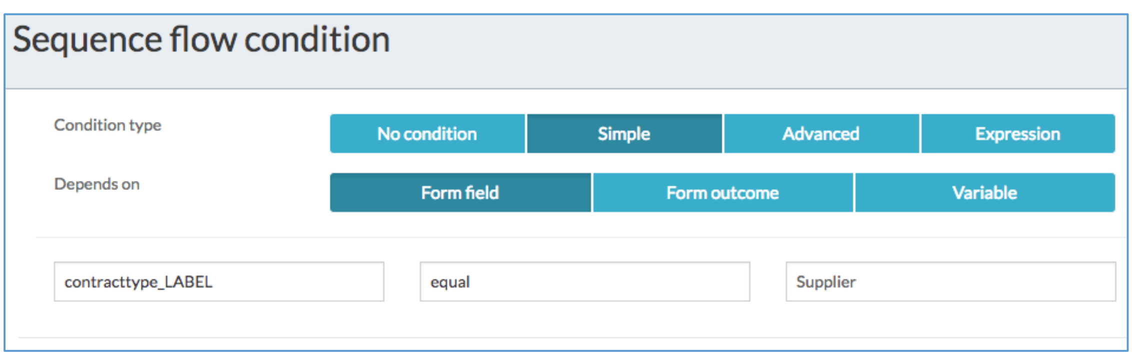


2.4 Configuring the sequence flow conditions based on contract type

To be able to store the approved contract in the correct folder according to its type, you need to configure the two sequence flows exiting the “Contract type?” gateway, based on the selected contract type.



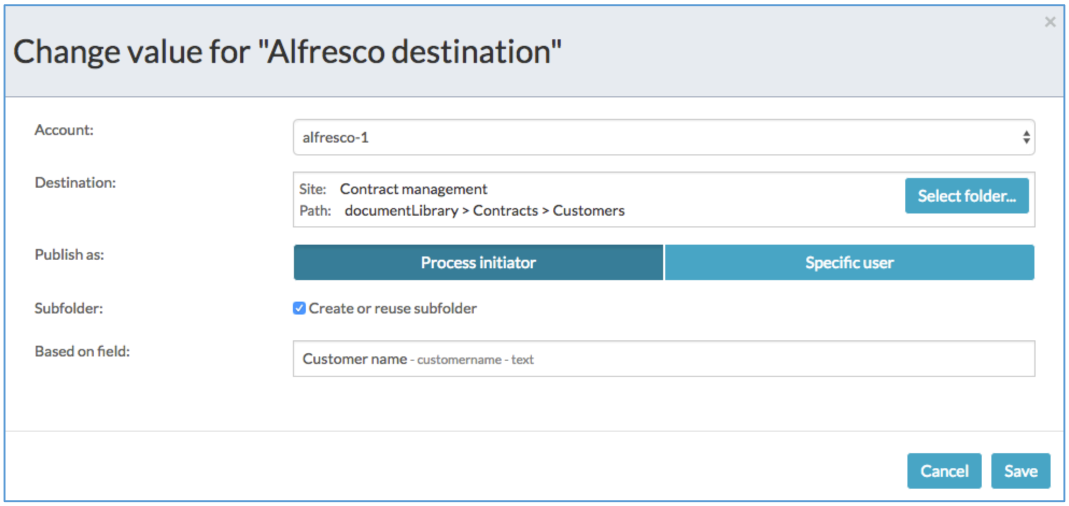
1. Select the sequence flow for the Supplier path and and click the **Flow Condition** property.
2. Click **Simple**, then **Form Outcome** and enter the following details:
    - Contracttype_LABEL
    - equal
    - Supplier



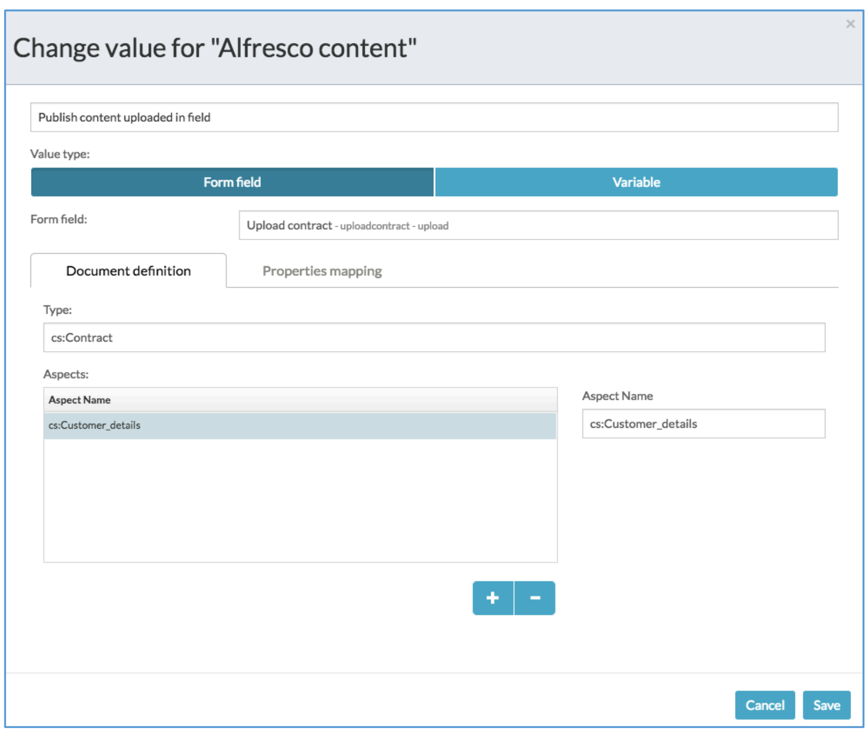
3. Repeat this for the Customer path, but using **Customer** as the equal to value.

2.5 Configuring the *Publish to Alfresco* tasks

1. Select the sequence flow for the Publish customer contract task and and click the **Alfresco Destination** property.
2. Define the settings as shown below.

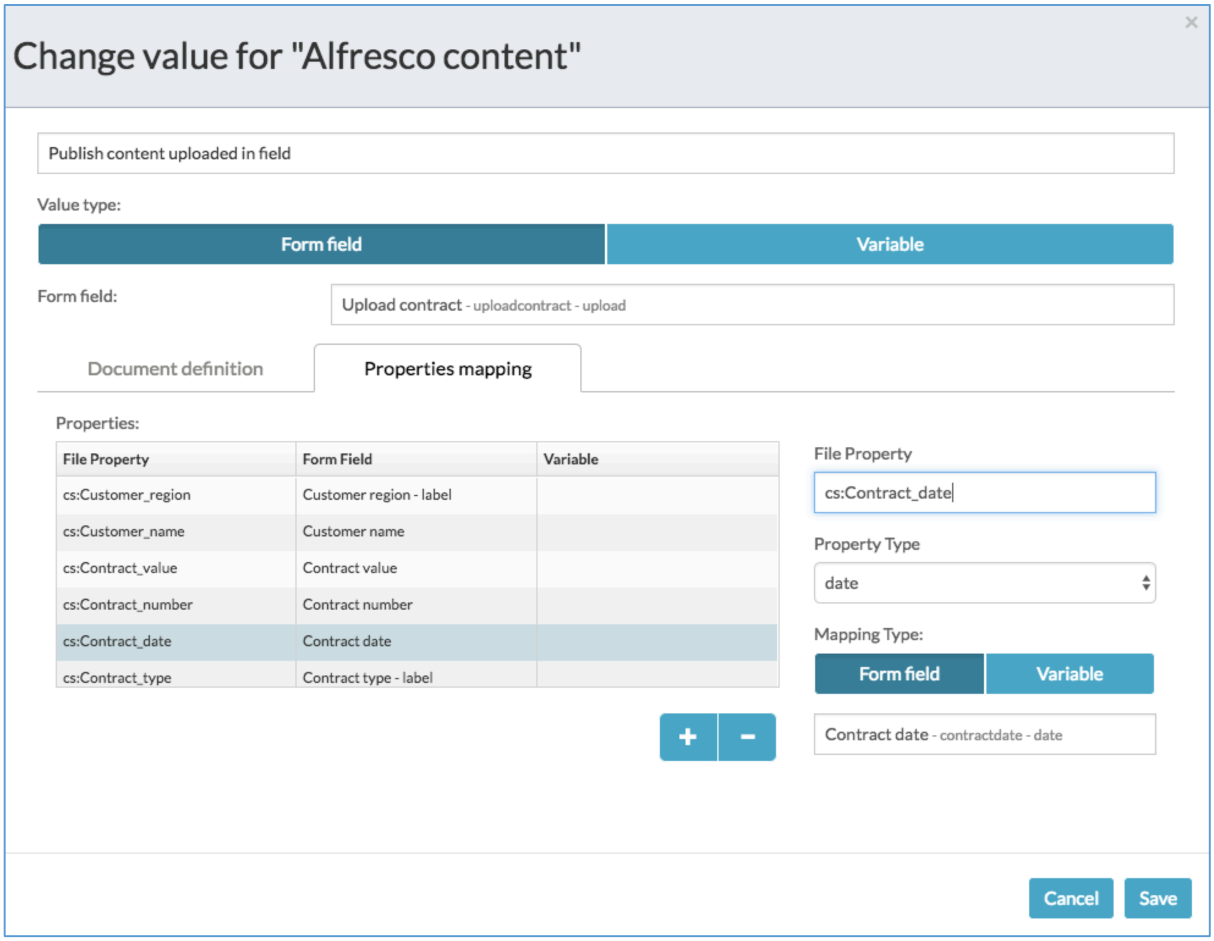


3. Now select the **Alfresco content** property and select Publish content uploaded in field.
4. Complete the details as shown below. Copy and paste the name of the content model ("cs:Contract") you defined in Alfresco Content Services and add the "Customer details" aspect.



5. When you're done click the **Properties mapping** tab.
   You can now map the Customer details aspect properties and Contract details properties with

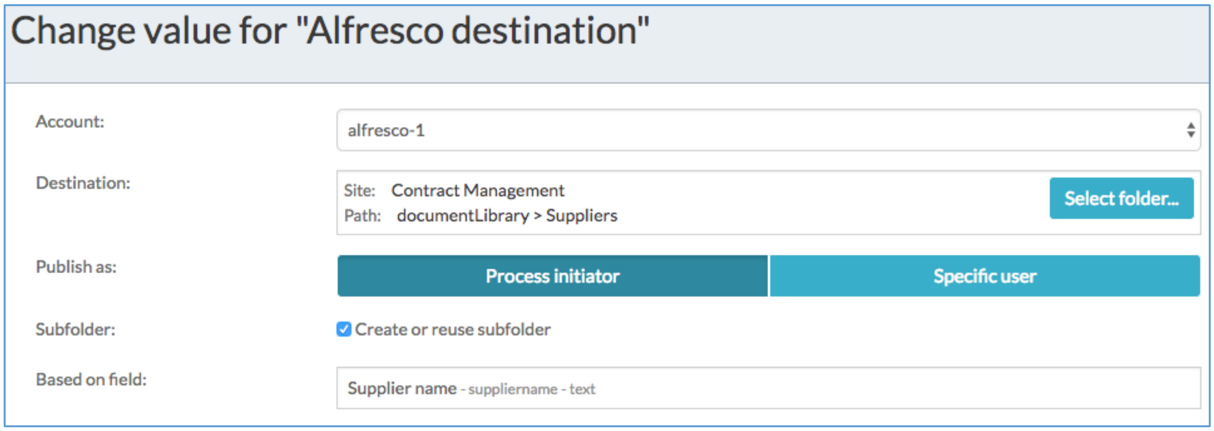
the corresponding form fields so that these properties values are stored in Alfresco Content Services.



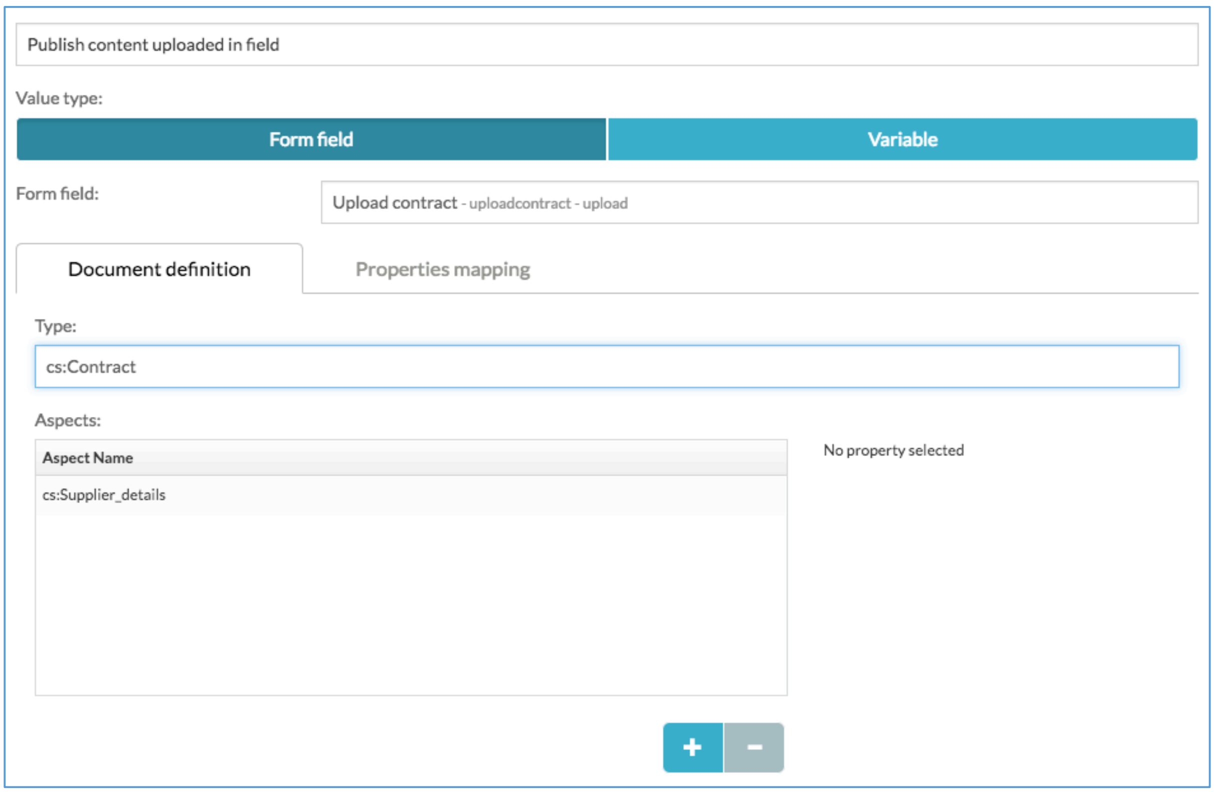
Use the details below.

File property	Form field
cs:Customer_region	Customer region - label
cs:Customer_name	Customer name
cs:Contract_value	Customer value
cs:Contract_number	Contract number
cs:Contract_date	Contract date
cs:Contract_type	Contract type - label
cs:Contract_comments	Reviewer Comments
cm:title	Customer name

6. Now select the “Publish supplier contract” task and configure the destination folder to be the Supplier folder, and the subfolder name based on **Supplier name** form field.



7. Next, select the **Alfresco content** property and use the **Document definition** configuration shown below.



8. Finally, select the **Properties mapping** tab and configure the mapping as shown in the table below.

File property	Form field
cs:Supplier_status	Supplier status - label
cs:Supplier_number	Supplier Reference Number
cs:Supplier_name	Supplier name
cs:Supplier_number	Supplier reference number

cs:Contract_value	Contract value
cs:Contract_number	Contract number
cs:Contract_date	Contract date
cs:Contract_type	Contract type - label
cs:Contract_comments	Reviewers Comments
cm:title	Supplier name

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