



ImageQuest

Custom Workflow Guide

Version 15.4



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Introduction to Custom Workflows

ImageQuest is a full-featured enterprise-level digital content management system. But it can do more than just store documents. Many ImageQuest users are aware of the Accounts Payable Workflow feature, which allows financial documents to flow through approval processes and validate against external general ledger systems. However, it is important to know that ImageQuest also allows customers to define their *own* workflows by making Custom Workflow Definitions. With Custom Workflows, customers can

- Set attribute values dynamically based on values of other attributes
- Generate approval tasks and route them to users or roles based on conditional logic
- Create parallel tasks
- Send notifications based on conditional logic
- Rotate pages
- Assign general ledger coding tasks
- And more!

This guide will walk through a simple example custom workflow in order to give a feel for how workflows can be configured with an intuitive drag-n-drop workflow designer.

Informa Software has a strong commitment to customer service and product quality. If you have questions, please contact an Informa Client Services Representative immediately. Thanks for using ImageQuest and please share your ideas on how we can make ImageQuest better for everyone.

Please contact us below for technical support and/or troubleshooting:

ImageQuest Support
(877) 475-7778
support@informasoftware.com
<http://www.informasoftware.com/support>

Requirements

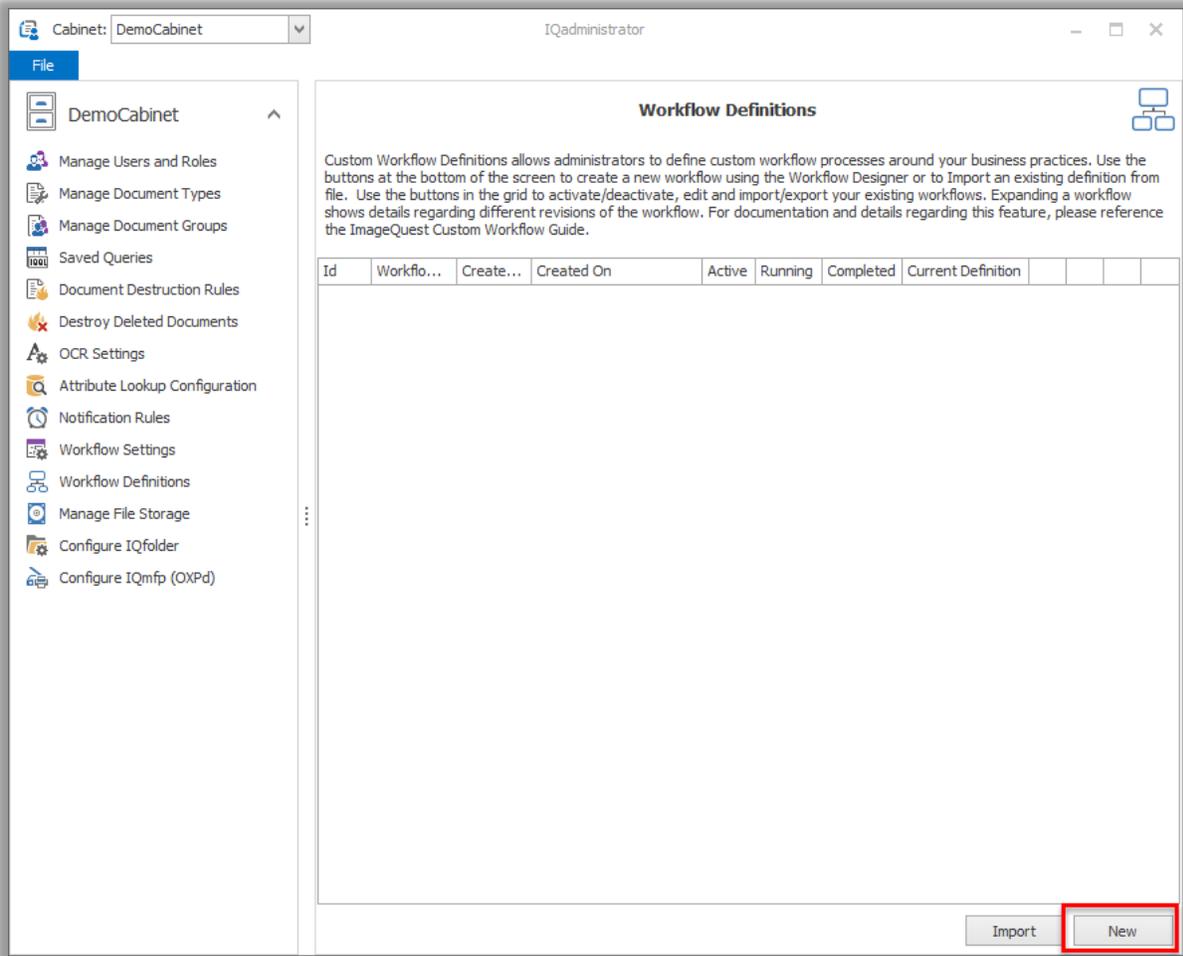
- ImageQuest 15.4 must be installed and licensed
- The Workflow Engine module must be licensed
- At least one Document Type must be configured for use with a custom workflow
- Workflow Settings must be properly configured and enabled in IQadministrator
- For custom workflows with GL Code Approval tasks, an ODBC compliant data source for GL Codes must be available for lookup and validation.

Workflow Designer

Creating Your First Workflow

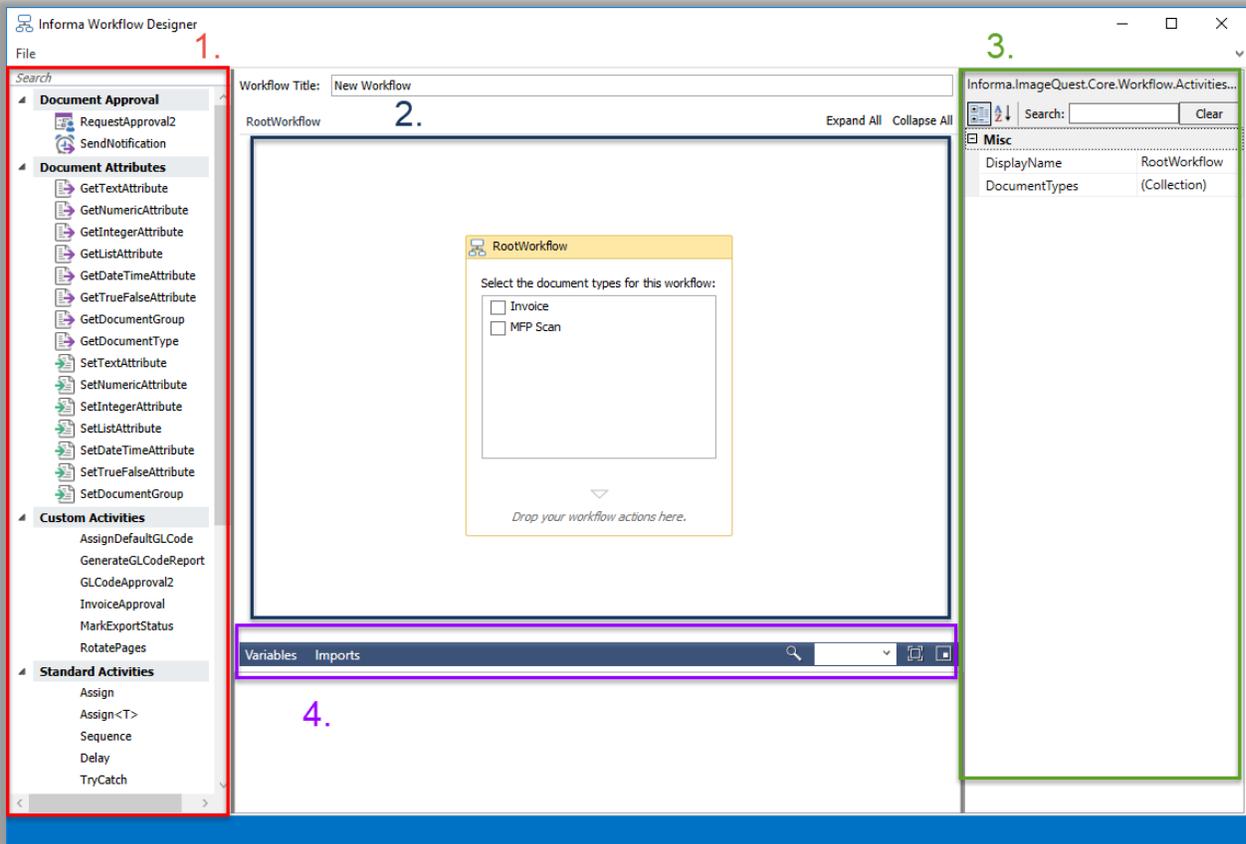
This section walks through creating a simple custom workflow definition, showcasing basic attribute operations, approval requests, and flow logic. This example uses a Document Type called “Invoice” with text attributes for invoice name and invoice number, a numeric currency attribute for invoice amount, and a list attribute for invoice status. The purpose of the workflow will be to set the invoice status of the document automatically for certain invoice amount values and to send the document for manual approval for other invoice amount values.

Custom workflow definitions can be viewed and managed on the Workflow Definitions screen of IQadministrator (which is only accessible to the ImageQuest administrator). To create your first workflow definition, click the “New” button. This opens the Workflow Designer.

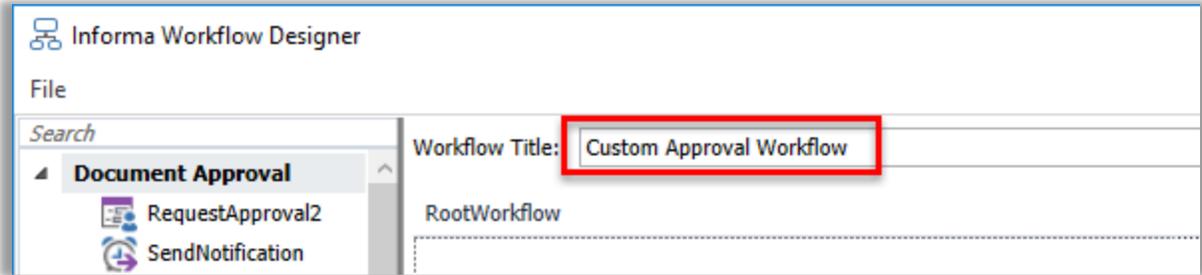


There are four main areas in the Workflow Designer, designated as follows.

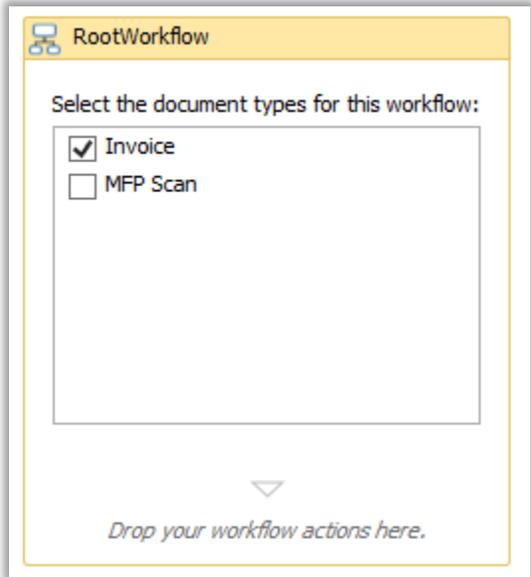
- 1. **Activities** – Activities are actions or logical flow operators that can be added to your custom workflow. Examples would be setting a document attribute or making a decision about where an approval task should be assigned.
- 2. **Workflow Canvas** – This is where activities are dropped, connected, and edited to form a workflow. Each activity shows as an element on the canvas with a title and often some options. It is worth noting that some activities contain *other* activities, in which case you are able to drill down into parent activity’s own canvas.
- 3. **Properties Panel** – Each activity can have its own properties, such as Display Name or input/output variables. These can be edited in the Properties Panel.
- 4. **Variables** – The Variables tab is used to define variables, which can be used for tracking workflow state, for storing and setting attributes, and for conditional logic.



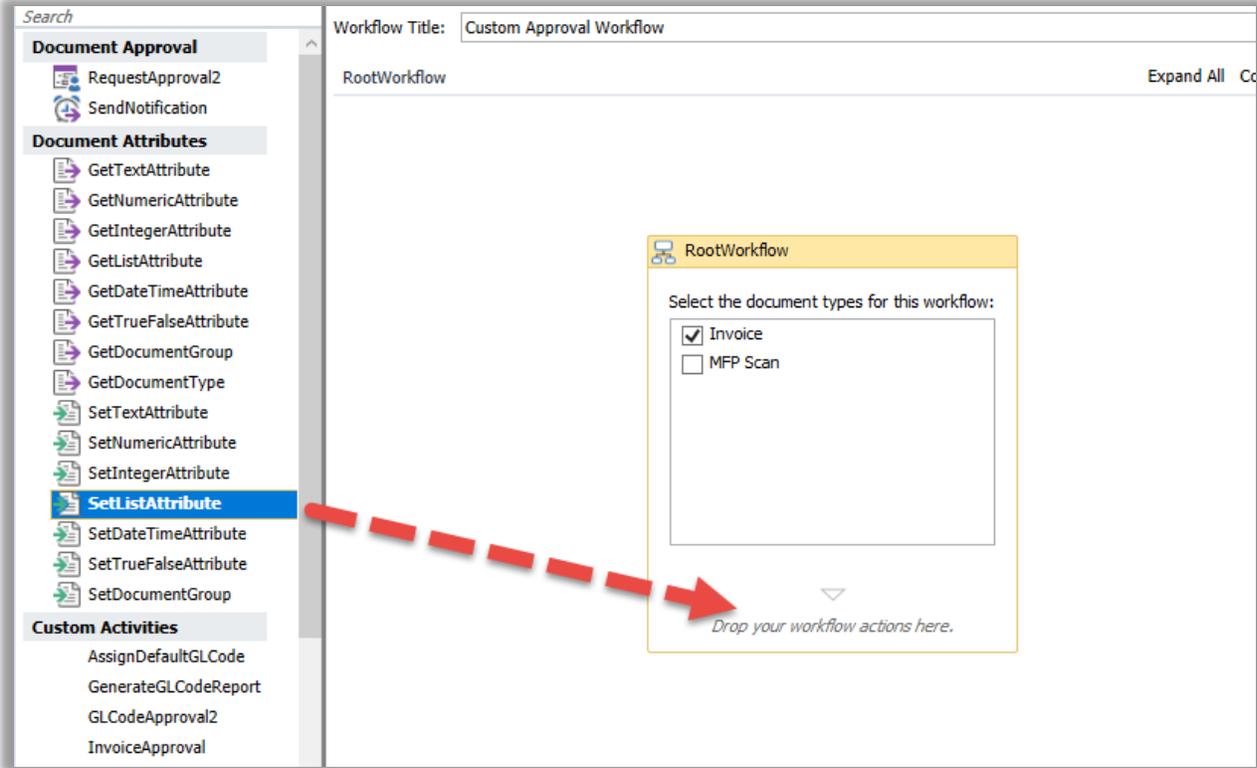
First, give the workflow a name, as in the screenshot below. This is the name that will appear in the “Action” column in the Work Queue in IQdesktop.



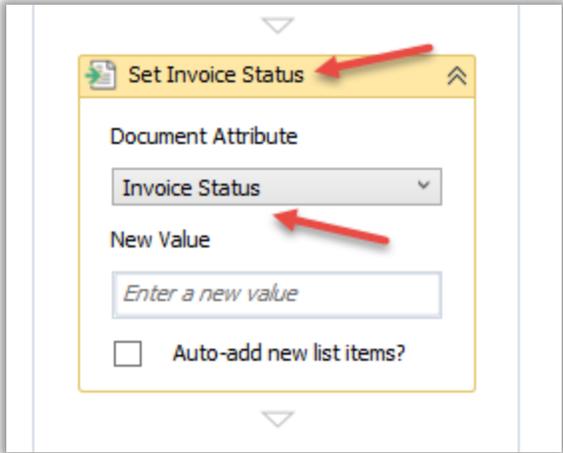
Next, check the Invoice document type in the “RootWorkflow” activity on the canvas. This tells the workflow to execute whenever a new document of type Invoice is created in ImageQuest. Note: multiple document types may be selected to run the same workflow on multiple document types.



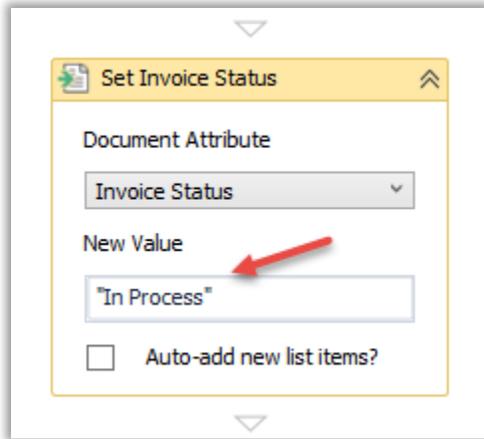
Next, let us set the Invoice Status attribute of the document to reflect that it has entered the workflow. Drag the “SetListAttribute” activity from the left onto the workflow canvas.



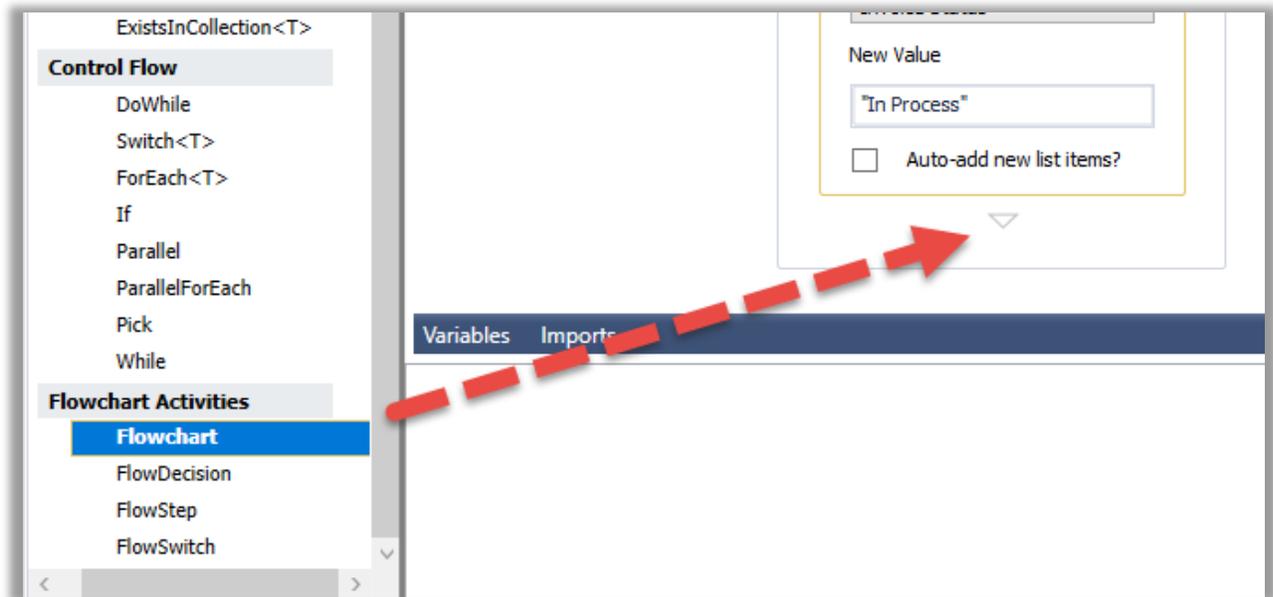
This adds a SetListAttribute activity to the canvas. Note that activities can be given custom names. We will call this one “Set Invoice Status” and select the “Invoice Status” as the attribute to be set.



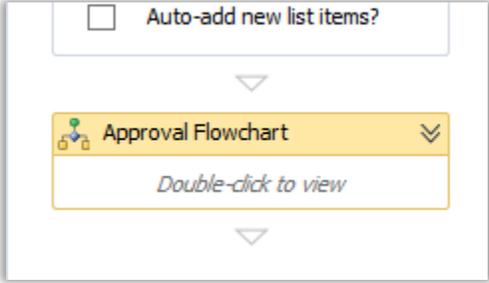
Set the new value to be “In Process”, which is one of the values in the invoice status list. Note that this must be in quotations marks to denote that we are providing a text value. Also, the value entered must exist in the list or the workflow will fail.



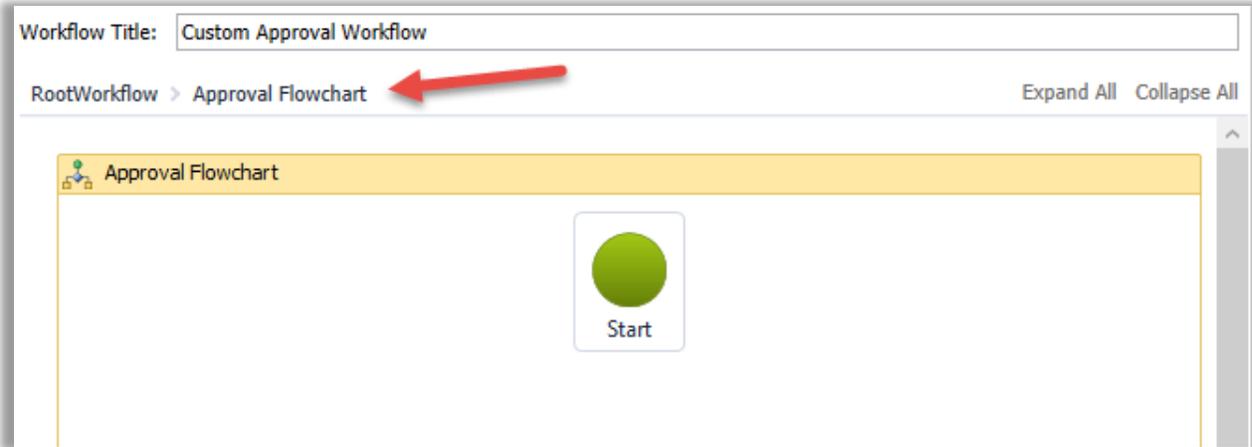
Now let us do some logic. First, add a Flowchart activity beneath the “Set Invoice Status” activity. A Flowchart activity allows for easy implementation of conditional workflow paths.



Once the activity is added, rename it to “Approval Flowchart”.

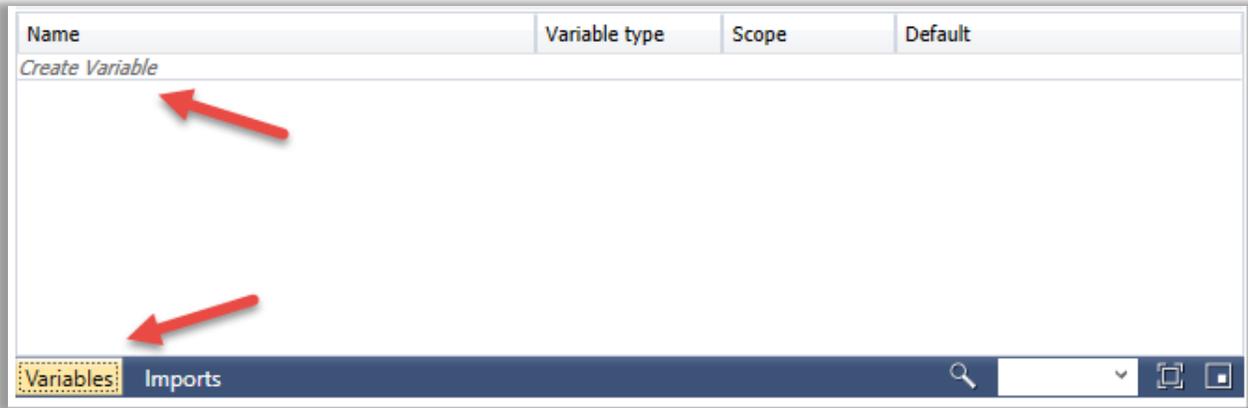


Double-click the activity to open the flowchart. Notice that certain activities like Flowchart activities have their own canvases. You can navigate up the canvas tree by using the links above the canvas.

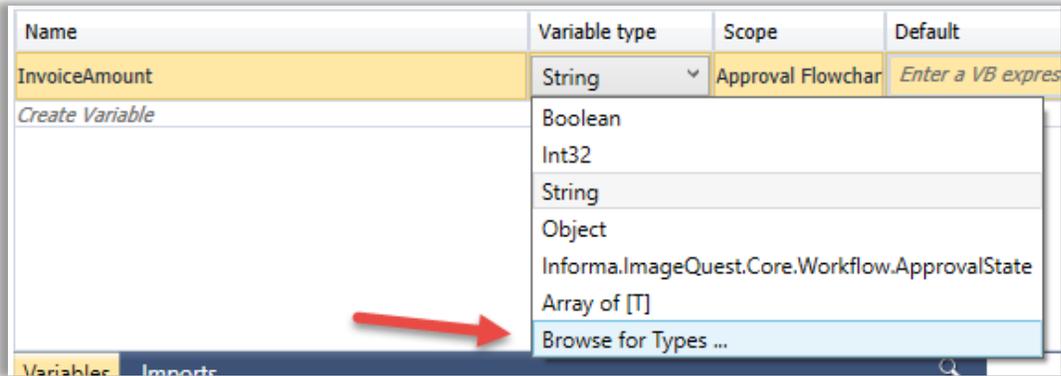


The Approval Flowchart will set the invoice status to “Completed” for invoice amount values below \$100. For other values, a manual approval process will be invoked.

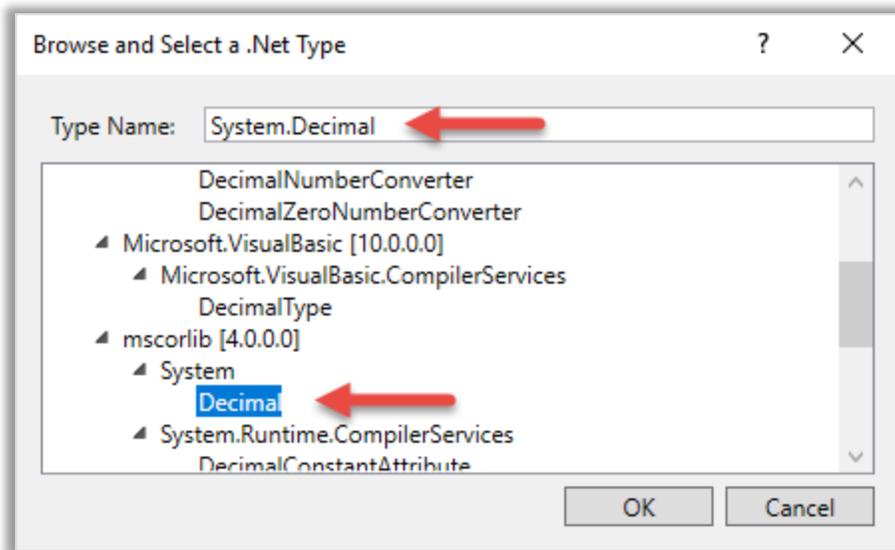
To achieve this, we must obtain the invoice amount value, which we will store in a variable for future reference. First, the variable must be created. Click the Variables tab near the bottom of the screen and then click into the “Create Variable” area.



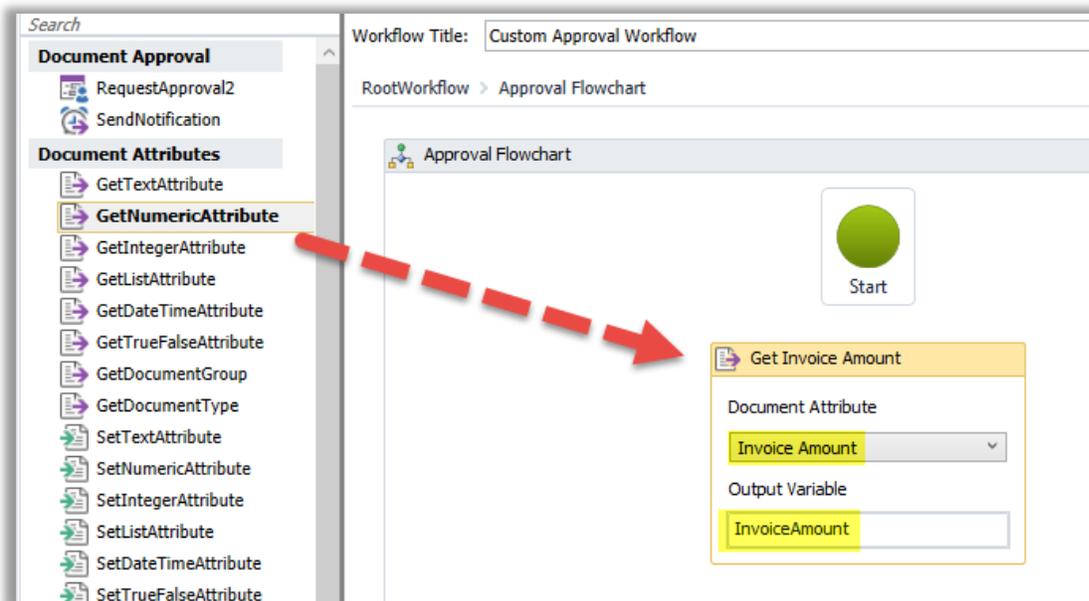
Enter *InvoiceAmount* as the variable name, then select “Browse for Types...” in the Variable Type dropdown.



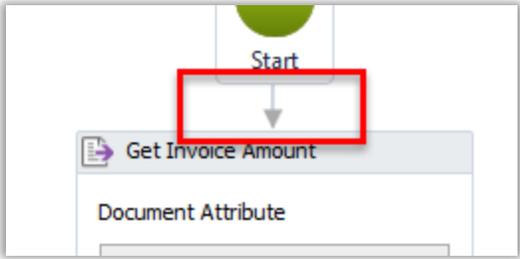
Search for “System.Decimal”, select “Decimal” as shown below, and click “OK.” (Note: numeric attribute values must be stored in Decimal variables.)



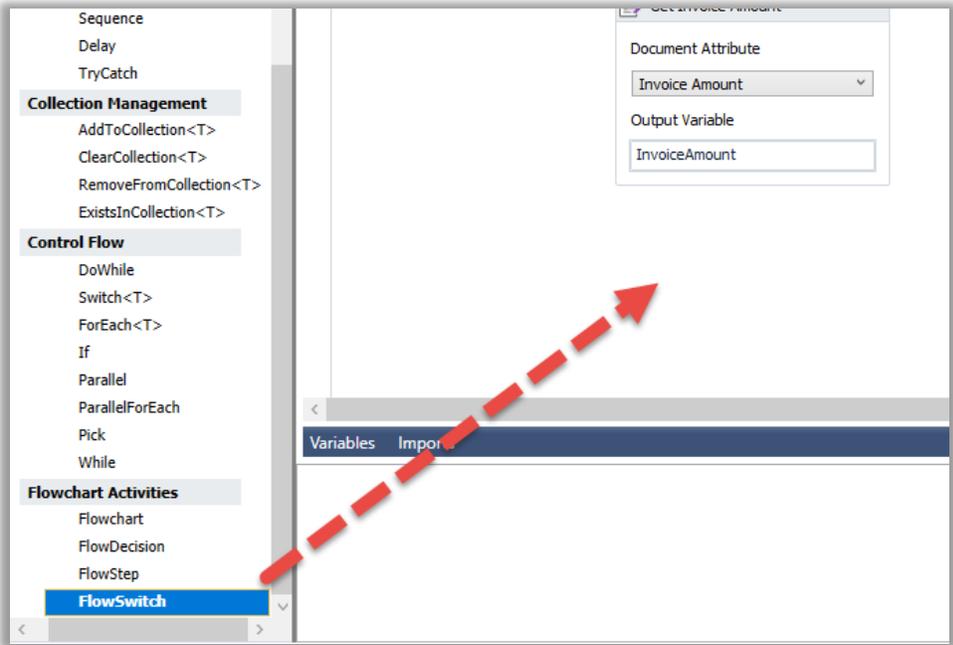
Next, it is time to get the invoice amount value to store in the variable. This is done by adding a GetNumericAttribute activity. After adding the activity to the canvas, change its name to “Get Invoice Amount” and select “Invoice Amount” in the Document Attribute dropdown. Also set *InvoiceAmount* as the Output Variable so that the attribute value is stored in the *InvoiceAmount* variable.



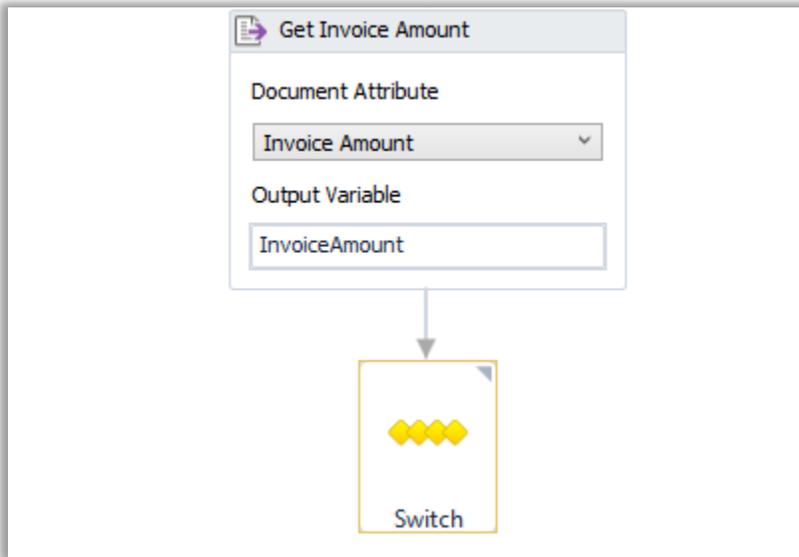
Finally, hover over the “Start” node until handles appear on the edges. Click and drag from the bottom handle to the Get Invoice Amount activity in order to connect them.



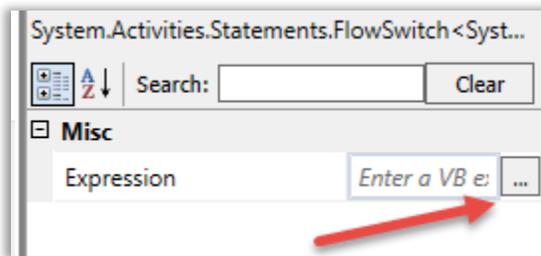
Now we want to make a decision based on the invoice amount value. First, add a FlowSwitch to the canvas. The FlowSwitch activity tells the workflow to follow different paths depending on certain conditions.



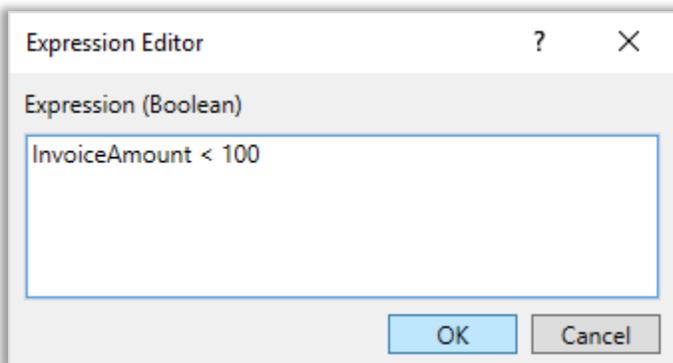
When placed, the FlowSwitch prompts to select a type. From the dropdown, select “Boolean”.



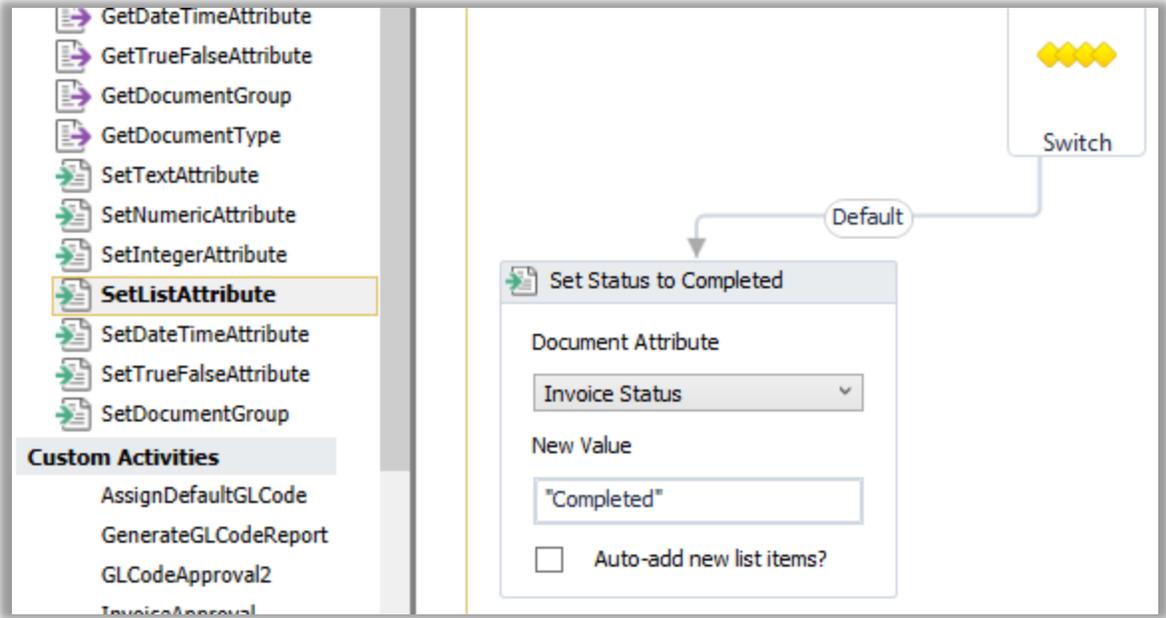
Select the FlowSwitch and click the ellipsis in the Properties Panel to edit the expression.



We will auto-complete the document if the value is less than \$100. To do this, write the following expression to check whether the *InvoiceAmount* variable is less than 100. Then click “OK.”

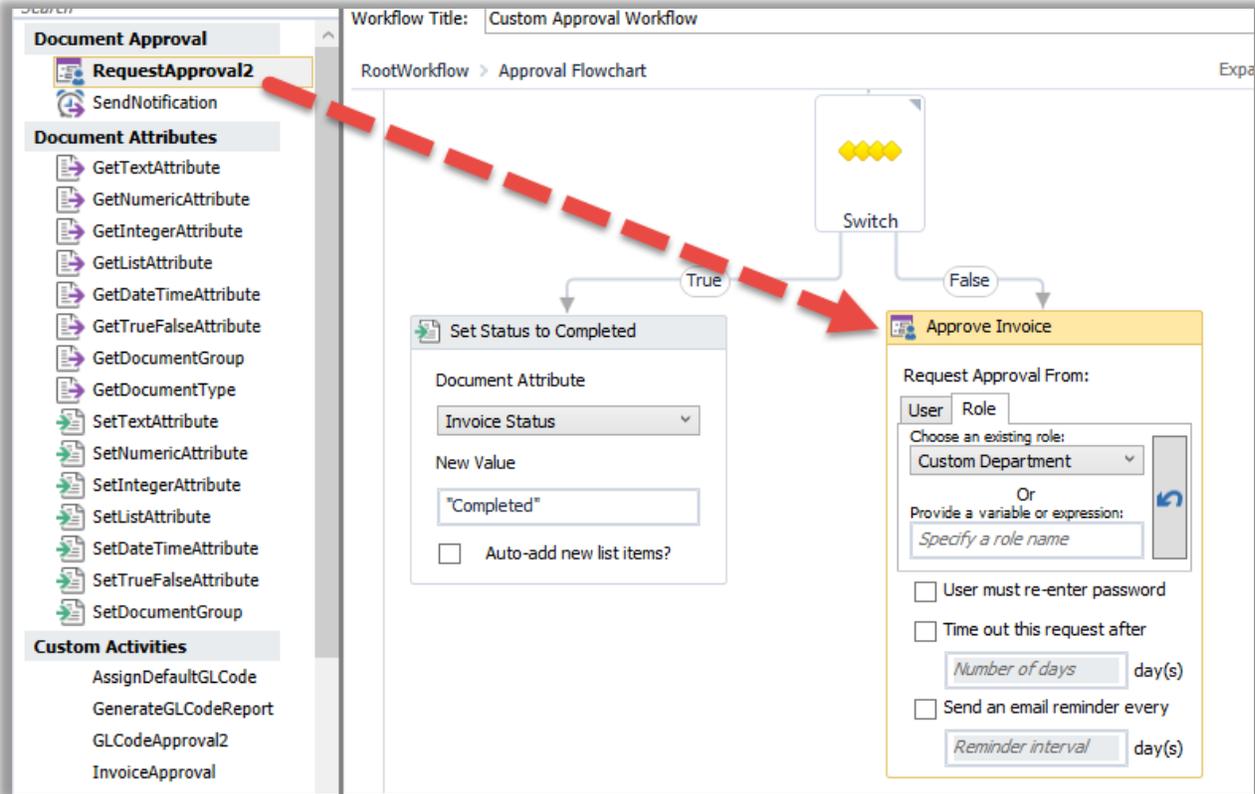


Next, add a SetListAttribute activity to the flowchart canvas. Rename the activity and enter the Document Attribute and New Value as shown below. Also, connect the Switch activity to the new SetListAttribute activity. Notice that a “Default” descriptor is added.

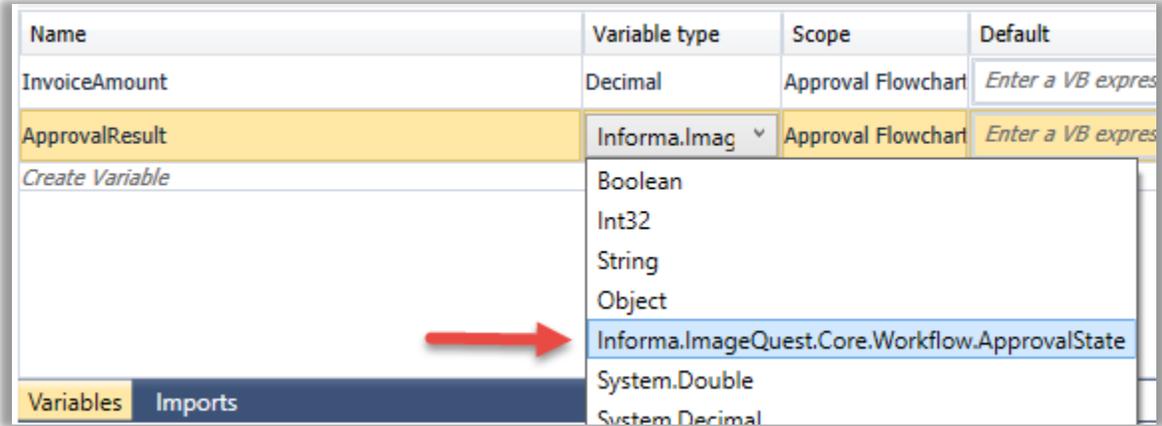


Click on the “Default” descriptor and then uncheck “IsDefaultCase” in the Properties Panel. Next, set the Case value to “True”. This tells the workflow to follow the path to the “Set Status to Completed” activity if the *InvoiceAmount* variable is less than 100. Next, we will define a path for when the *InvoiceAmount* is not less than 100.

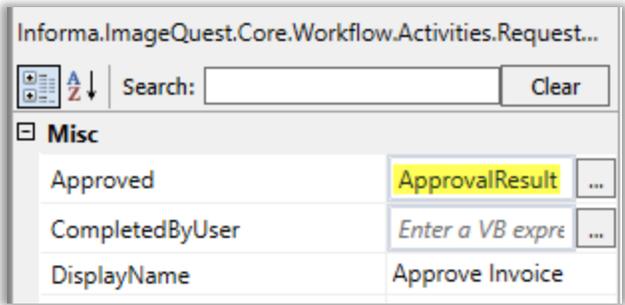
If the *InvoiceAmount* is 100 or greater, we will send it for manual approval. To do this, add a RequestApproval2 activity to the canvas. Rename the activity, select the “Role” tab, and select an existing role as shown below. In this example, an approval work item will be generated for the “Custom Department” role.



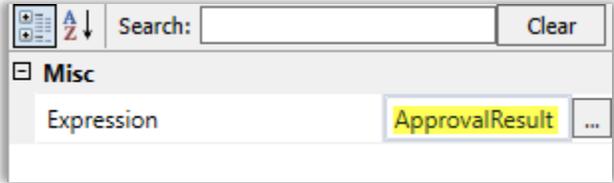
The result of the approval task must be stored in a variable. Create a new variable called “ApprovalResult” and give it a type of “Informa.ImageQuest.Core.Workflow.ApprovalState.” (If this is not in the dropdown, search for it.)



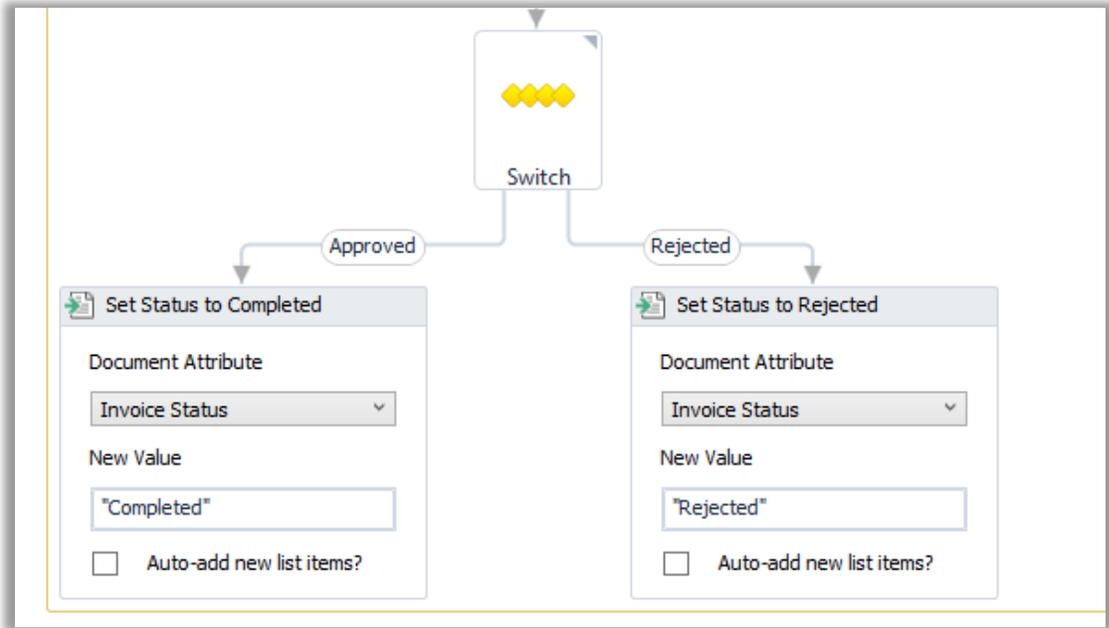
Next, in the Properties Panel for the Approve Invoice activity, type "ApprovalResult". This stores the result of the approval task in the ApprovalResult variable.



Next, we must set the invoice status based on the result of the approval activity. To do this, add another FlowSwitch activity, this time with a type of "Informa.ImageQuest.Core.Workflow.ApprovalState." In the Properties Panel, set the Expression value to "ApprovalResult" so that the FlowSwitch activity evaluates based on the value of the ApprovalResult variable.

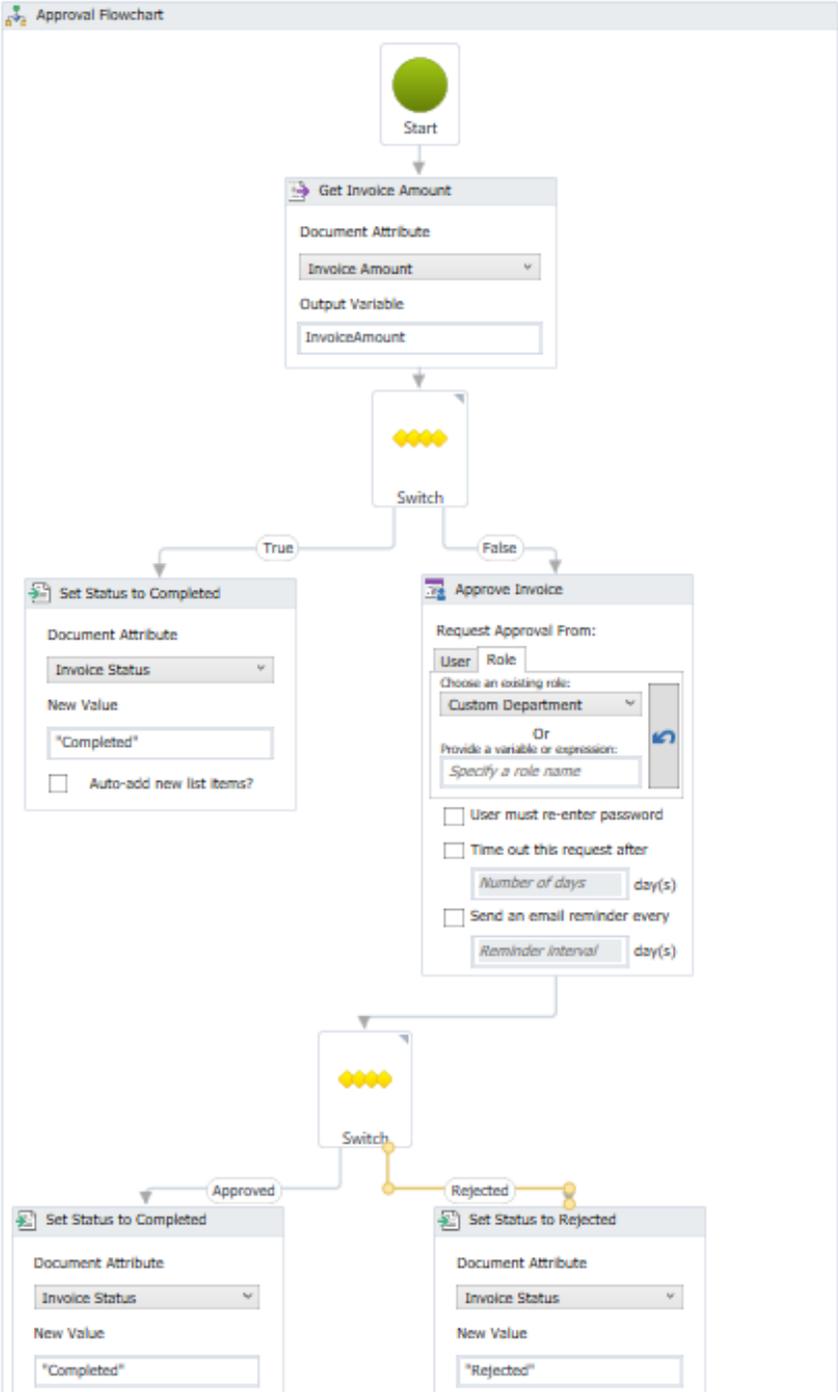


Finally, set the invoice status attribute based on the value of the ApprovalResult. As shown below, two SetListAttribute activities are added. If the ApprovalResult is "Approved", the status is set to "Completed", and if the ApprovalResult is "Rejected", the status is set to "Rejected".



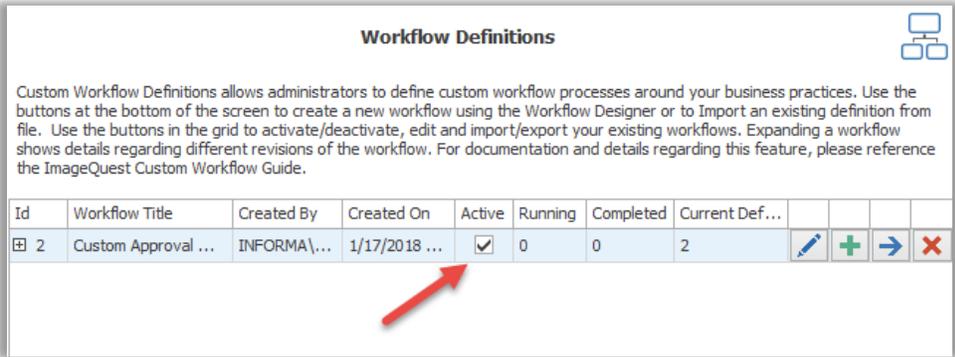
This completes the workflow. Zooming out, we can see an overview of the flowchart, which executes the following logic:

- If the Invoice Amount is less than 100, set the Invoice Status to “Completed”.
- Otherwise, request approval from the Custom Department.
 - If the approval result is “Approved”, set the Invoice Status to “Completed”.
 - If the approval result is “Rejected”, set the Invoice Status to “Rejected”.



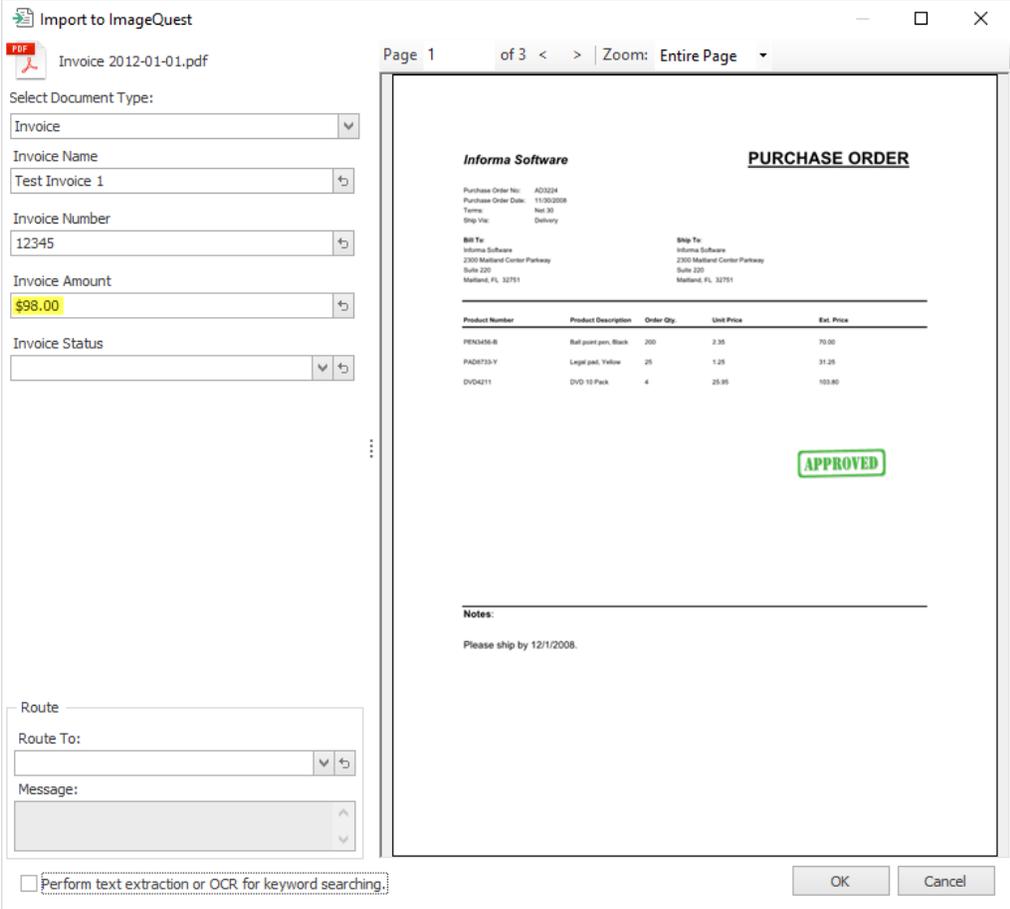
To save the workflow, go to the File menu on the top-left of the window and choose "Save." Close the workflow designer by choosing File → Close.

On the Workflow definitions screen, check the "Active" box for the workflow you just created in order to activate it.

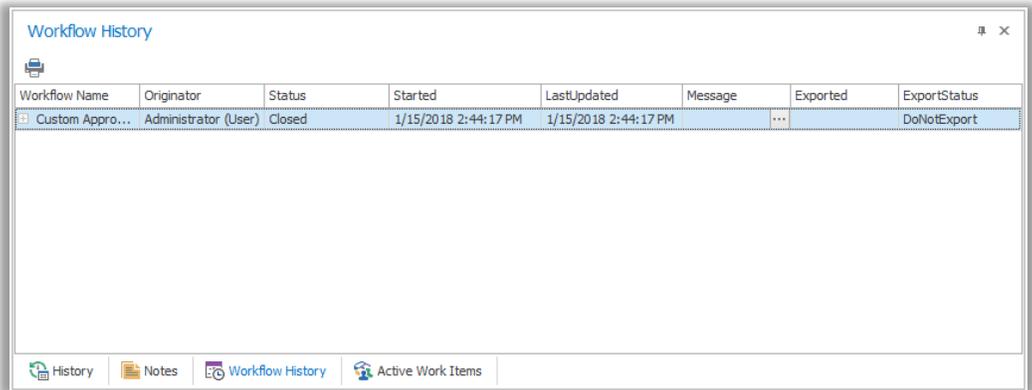


Testing the Workflow

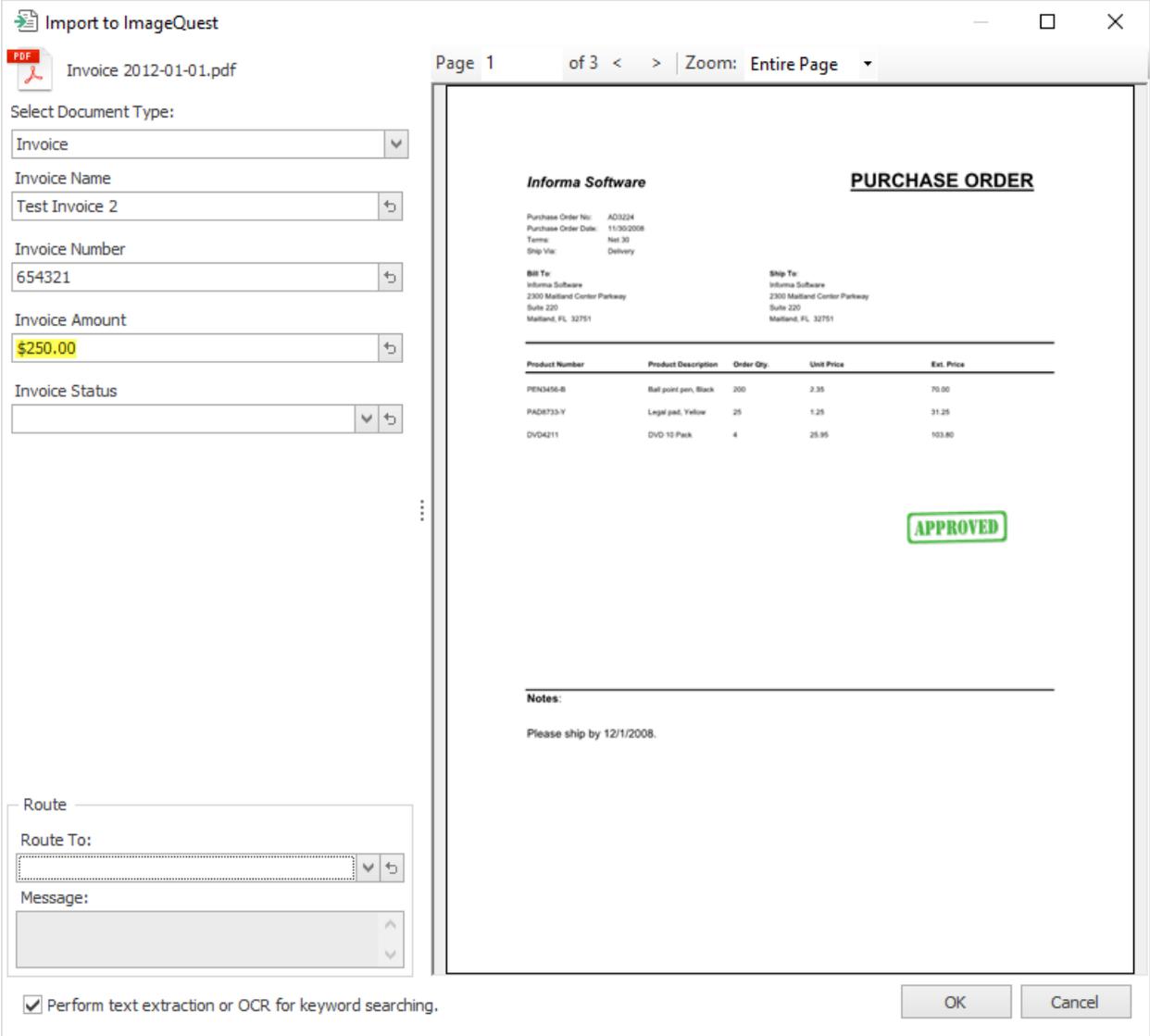
To test the custom workflow, simply import a document with the Invoice document type. First, we will test the scenario where the Invoice Amount is less than \$100. In this example, we import the following.



After importing, searching for the document reveals that its Invoice Status has automatically been set to "Completed," as is expected in this case. The Workflow History tab for the document shows that the custom workflow was run. The "Closed" status indicates that the workflow has completed.



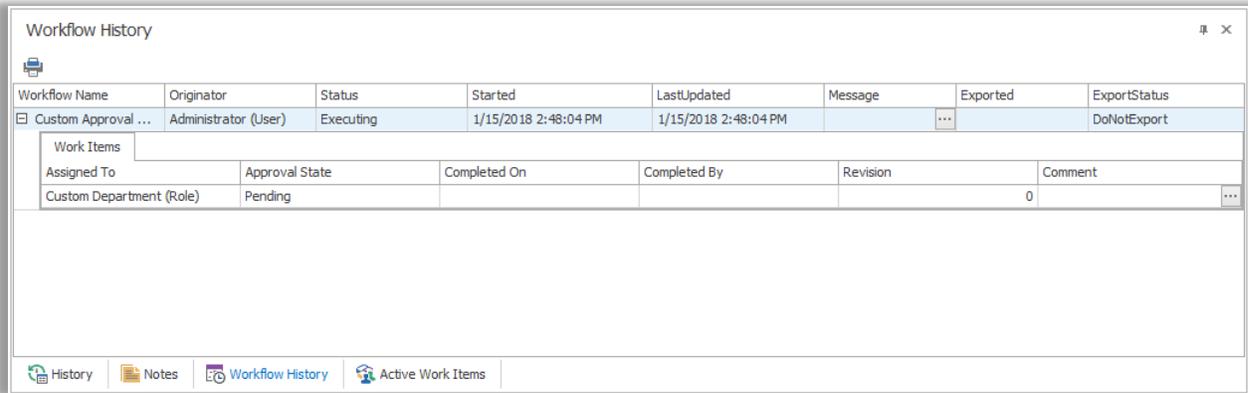
In the next example, the Invoice Amount is greater than \$100, so there should be an extra approval step. First, we import the document.



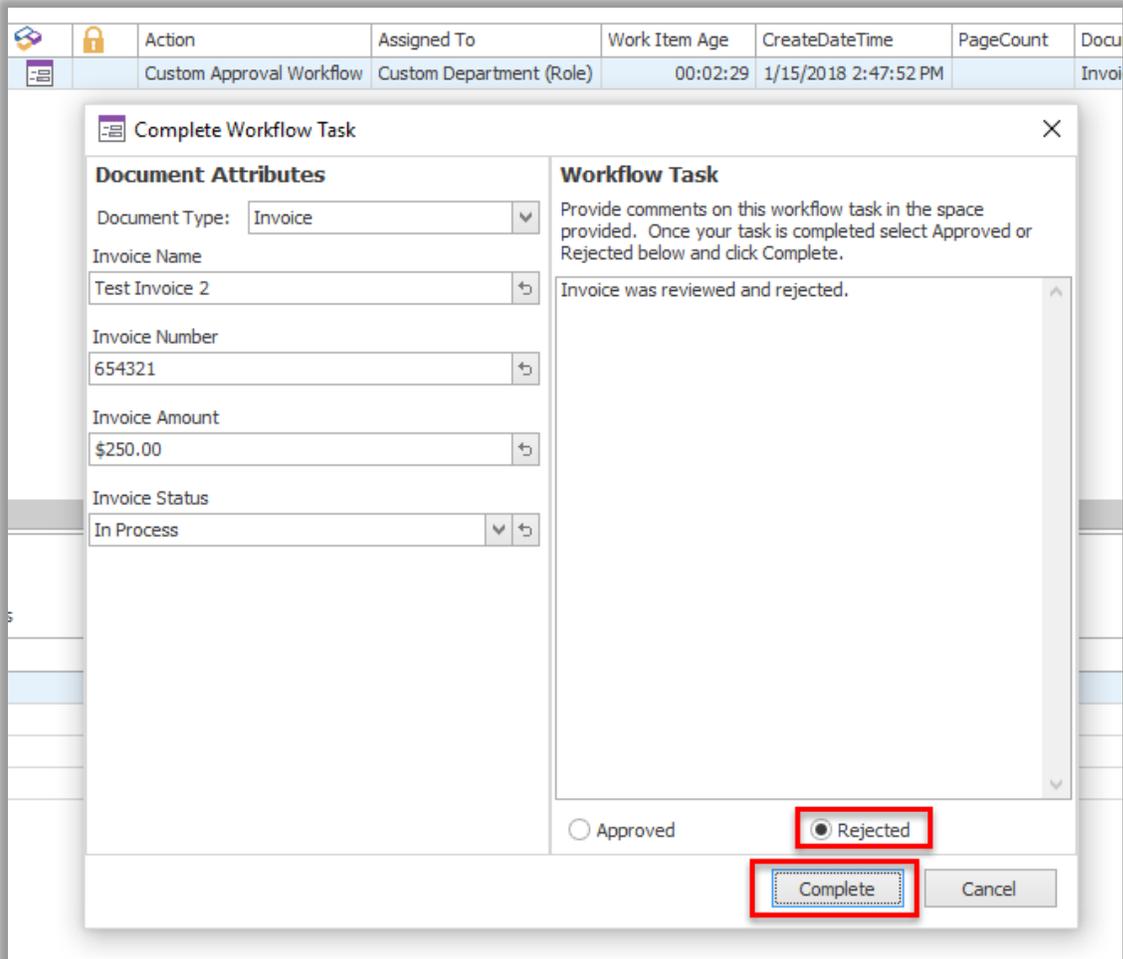
After import, a search for the document reveals that its Invoice Status is "In Process."

Drag a column header here to group by that column										
				CreateDateTime	PageCount	DocumentType	Invoice Name	Invoice Number	Invoice Amount	Invoice Status
				1/15/2018 2:44:13 PM		Invoice	Test Invoice 1	12345	\$98.00	Completed
				1/15/2018 2:47:52 PM		Invoice	Test Invoice 2	654321	\$250.00	In Process

Also, the Workflow History panel shows that there is an active work item assigned to the Custom Department role for approving the document. The “Executing” status indicates that the workflow is still in process; in this case, it is pending the completion of the approval work task.



Looking in the Work Queue for a member of the Custom Department role, we see that a work item is pending completion. Here, we open the work item and choose to reject it.



Searching for the document reveals that the Invoice Status has now been updated to “Rejected.” If we had instead approved the work item, the Invoice Status would have been set to “Completed.”

Drag a column header here to group by that column

				CreateDateTime	PageCount	DocumentType	Invoice Name	Invoice Number	Invoice Amount	Invoice Status
				1/15/2018 2:44:13 PM		Invoice	Test Invoice 1	12345	\$98.00	Completed
				1/15/2018 2:47:52 PM		Invoice	Test Invoice 2	654321	\$250.00	Rejected

The Workflow History panel shows details regarding the status of the workflow and the related work item(s).

Workflow History # x

Workflow Name	Originator	Status	Started	LastUpdated	Message	Exported	ExportStatus
<input checked="" type="checkbox"/> Custom Approval ...	Administrator (User)	Closed	1/15/2018 2:48:04 PM	1/15/2018 2:53:07 PM		...	DoNotExport

Work Items

Assigned To	Approval State	Completed On	Completed By	Revision	Comment
Custom Department (Role)	Rejected	1/15/2018 2:52:59 PM	John Smith/jsmith (User)	0	Invoice was reviewed and r... ...

History
 Notes
 Workflow History
 Active Work Items

Other Notes

Below are a few important items to note when working with custom workflows.

- Workflow definitions cannot be renamed once created.
- Workflow definitions cannot ever be deleted once a work item has been processed.
- Once a workflow definition has been used to process a document, a subsequent edit to the workflow definition is saved as a revision to the original definition. *Documents introduced under the old definition revision will continue using the old definition* while new documents will use the new revision. Thus, a workflow definition may have multiple active revisions at once.

Closing Notes

This guide was meant to be a high-level overview of the Custom Workflow feature in ImageQuest. While this example was simple, Custom Workflows can be used to facilitate complex business processes requiring multiple stages of approval, general ledger coding, and data reconciliation with external systems. Please reach out to Informa Software for further help and instruction.