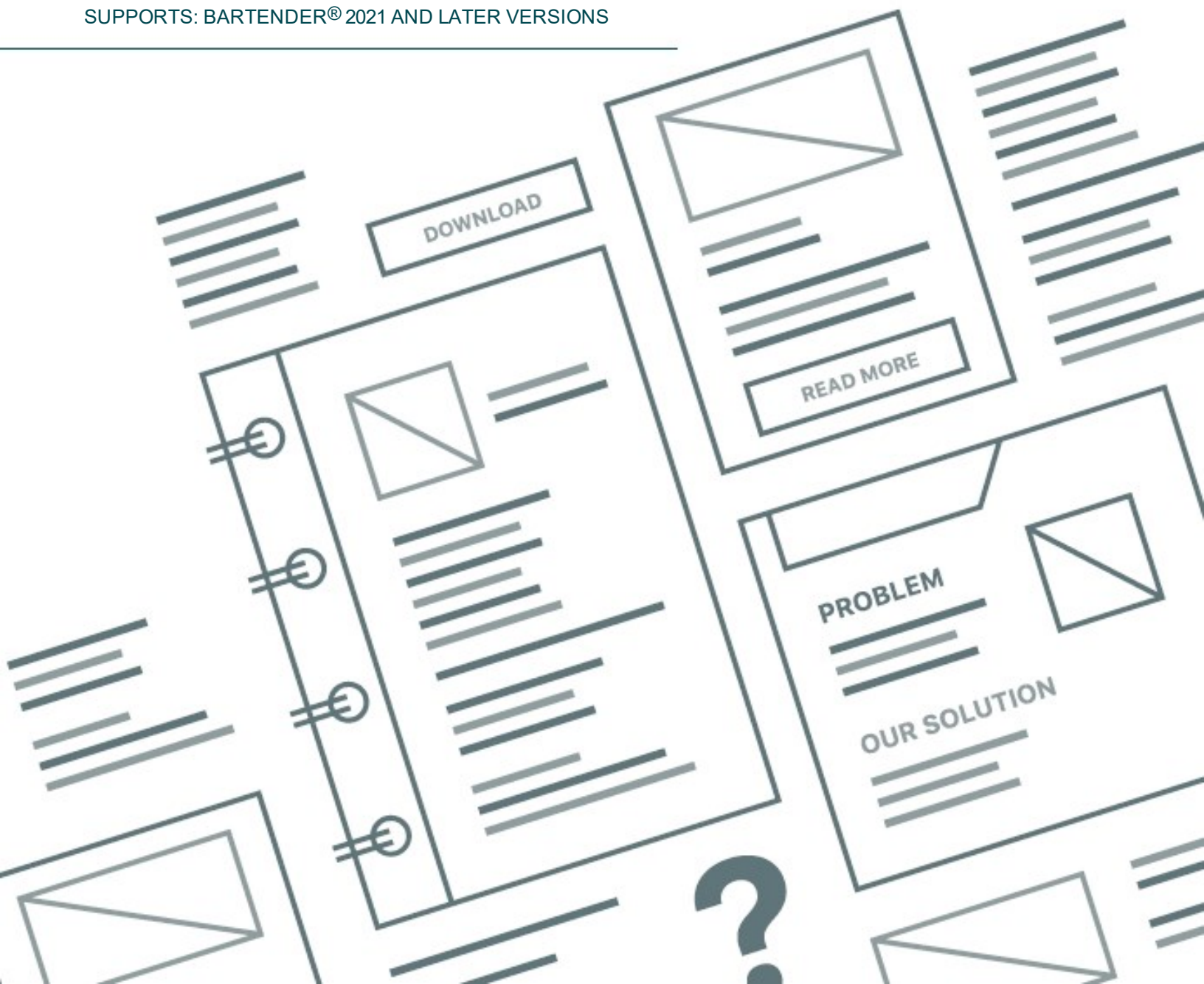# Understanding Librarian Workflows

HOW TO CONFIGURE AND USE WORKFLOWS TO MANAGE FILES IN LIBRARIAN

SUPPORTS: BARTENDER® 2021 AND LATER VERSIONS

Contents

Overview

Beginning in BarTender 2021, new workflow management functionality is added to support customers who want the following capabilities and features:

- Use a straightforward graphical object-based drag-and-drop interface to design custom workflow models that are specific to your business case

- Create unique workflows for specific file types or for files in specific folders in Librarian

- Control who can access and advance files through the workflow at each state in a file's life cycle

- Send automatic email notifications to specific recipients when files move between workflow steps

- Access Print Portal web pages to review and approve BarTender documents and send them to production

This document describes workflow concepts in general and the new tools that you can use to build custom workflows to support your unique business processes.

Additionally, this document provides two hands-on tutorials to help you understand how to create and use workflows in BarTender 2021 and later versions of BarTender. To use these tutorials, refer to Appendix A: Lifecycle Workflow Tutorial and Appendix B: Approval Workflow Tutorial.

About Workflows

Typically, the term *workflow* refers to a repeatable pattern of discrete actions that advance an item (such as a product, service, or document) through a series of steps and thus define the life cycle of the item. Workflows can help you automate your business processes, such as reviewing label designs or approving documents for production.

Beginning in BarTender 2021, customizable workflow functionality is provided that you can use to define workflow states and transitions to help manage your file and document life cycles.

For example, consider the following scenario:

> A client wants you to develop a nutritional label for their company to use on packaging. You assign the task of designing the label to one of your employees. After the design is complete, another employee reviews it to verify that the design meets your client's specifications. Finally, the label is either rejected and returned to the designer or is approved and delivered to your client for production.

One possible workflow for this scenario includes the following states:

- Design
- Review
- Production

The transitions from one state to the next might be called "Submit for Review," "Approve" or "Reject," and "Submit For Design."

This sample workflow would resemble the following.

Approval Workflow
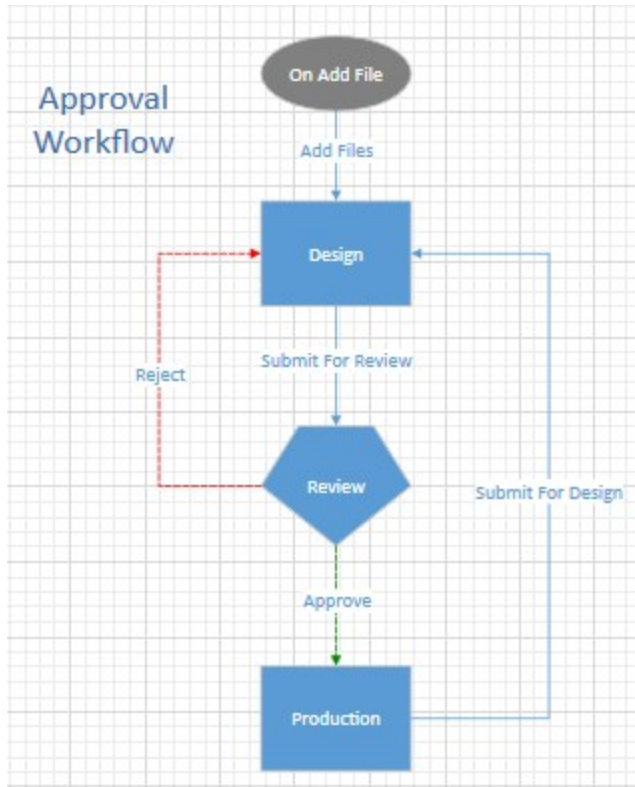
When you use a workflow that assigns states and transitions to files, you can do the following:

- Create representations of the life cycle for all of your files.

- Track the status of files from start to finish.

- Send email notifications to particular users and groups when a file changes.

- Limit the users whom you want to have access to the file at each stage in its life cycle (for example, you might want to specify that only members of your design team can edit the file while it is in the Design state).

- Create branches at decision points. For example, in the Review state, a reviewer can either approve the file and move it to the Production state or reject the file and automatically send it back to the Design state together with an email notification to the designers that informs them that the file was rejected.
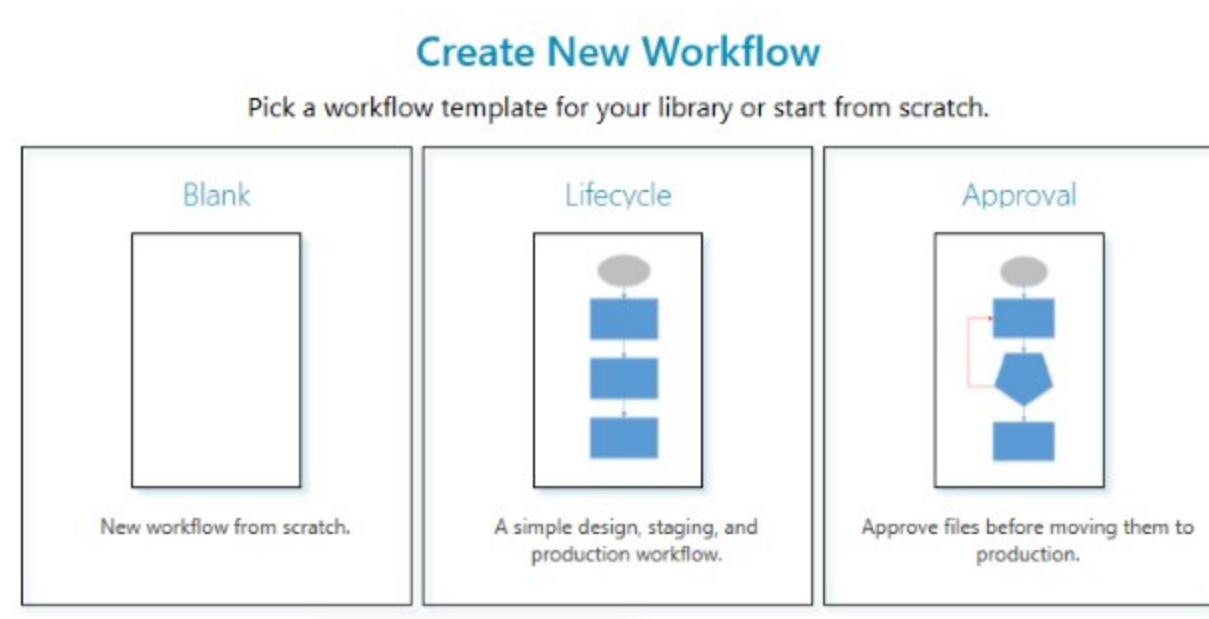
Workflow Designer

The Workflow Designer is an object-based graphical user interface that you use to create, save, and modify workflows. In the Workflow Designer, the process from one workflow step to another is represented by state and transition objects.

To access the Workflow Designer, open the **Librarian Setup** page in Administration Console, and then click **New Workflow** in the **Workflows** area, as shown.
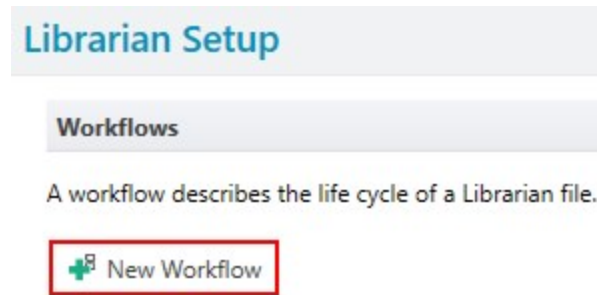
When you click **New Workflow**, you are given the option to select a preconfigured template or to start from a blank canvas.

Depending on the option that you select, the Workflow Designer opens and displays a preconfigured template or a blank design canvas.

For all state and transition objects, you can configure the object properties. These properties vary depending on the object and include specifying which users can move a file to particular states and transitions, prompting users to add a comment, and sending email notification messages when the file moves through specific steps in the workflow.

In the following image, the rectangle that is labeled Design is a state object, and the line that is labeled Submit For Review is a transition object.

States

The Workflow Designer uses two kinds of state objects: a "generic" state object and an approval state object (which is a specialized state object that is used for review scenarios). The properties of these objects vary depending on where they are located in the workflow and include the following:

- **Default initial state**: The first state that a new file is assigned to in the workflow by default. For example, you might want all newly added files to be assigned to a Draft state. In this case, you would configure your Draft state object to be the default initial state.

- **Set as production (published)**: Configure this option when you want users who have permissions to access published files to be able to access this file when it is in this state.

> When you integrate Print Portal with Librarian, you must select this option when you want documents to appear in the Librarian root folder in Print Portal.

To add a state or approval state object to your workflow, click the object in the Workflow Designer ribbon, and then click in the location where you want to place the object.

Transitions

Transitions represent the connection between two states and the events that occur as a file moves from one state to another, such as the sending of a notification message or a prompt for the user to add a comment.

To add a transition object to your workflow, click the object in the Workflow Designer ribbon, point to the first state object that you want to connect it to until the sizing handle appears, drag the transition object to the second state object that you want to connect it to until the sizing handle appears, and then drop the transition object.

About Workflow Rules

After you design and configure your workflow, you must assign it to the specific files and file types in Librarian that you want to apply it to. To do this, you configure a workflow rule.

For example, you might need to create two workflows: one that applies only to the BarTender documents that reside in a particular Librarian folder, and one that applies only to the image files in that same folder. Or, you might want one workflow to apply to all the files in a particular folder and a second workflow to apply to files in a different folder. In either case, you can create a workflow rule that applies each workflow to the specific file types and/or folders that you want.

Use the **Workflow Rules** dialog to create and modify workflow rules. To access this dialog, open the **Librarian Setup** page in Administration Console, and then click **New Workflow Rule** in the **Workflow Rules** area. When the dialog opens, click **New Rule** to create a rule, as shown.
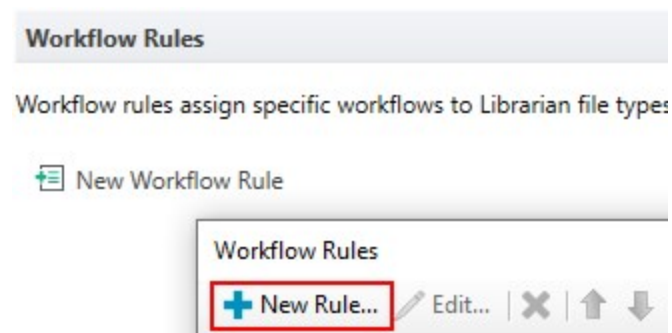
The rules that you create are listed in the **Workflow Rules** dialog in order of priority. The least specific rule should be listed at the top (lowest priority) and the most specific at the bottom (highest priority).

Workflow Email Notifications

You can configure a notification email message to be sent to specified users and groups whenever a file goes through a particular transition or enters a particular state. You can also configure notifications to be sent to reviewers when a file requires an "approve or reject" decision.

Workflow email notifications depend on an SMTP service to be defined on the **Email Servers** page in Administration Console. To access this page, use one of the following methods:

- In Administration Console, click **Email Servers** in the left navigation pane.

- In the Workflow Designer, click the **Notifications** tab in the properties pane for the selected state or transition object, click to select the **Send notification** check box, and then click **Setup**. In the **Notification** dialog, click **Configure** next to the **Email Server** option.

> The name of the check box and dialog vary depending on whether the selected object is a state object or a transition object.

When you configure a notification email message, you can add variables to the message body so that information about the file and/or workflow is included automatically in the email message. You can also use variables to add buttons or links to the email message that incorporate Print Portal approval processes. For more information about these variables, refer to Appendix C: Email Notification Variables.

Print Portal Workflow Support

Use Print Portal to streamline your workflows by facilitating online document review and approval processes that are integrated with email notifications.

Print Portal is a web-based application that provides an interface for selecting and printing BarTender documents. A web server "hosts" Print Portal, which makes BarTender documents accessible to other computers and mobile devices over the Internet or intranet. Users in your company can easily print documents by using a web client interface to select the document that they want to print.

When you use workflows for BarTender documents that are stored in Librarian, you can send email notifications to your users and reviewers. When you include Print Portal in your configuration, those email notifications can include buttons, as shown, and links that give your email recipients access to Print Portal so that they can review and approve or reject documents in the Print Portal interface.

The following file(s) are waiting for your review and approval. Please review and approve for production.

Document1.btw

Review and Approve

When the email recipient clicks the button or link, Print Portal opens to the **Workflow Transition** page, where the user can review and then approve or reject the document, as shown.

Document1.btw

Revision 1

State: Review

Select the workflow step to apply to this request:

○ Reject

◉ Approve

Add a comment (required)

This design is approved.

Print   Submit

If you did not install Print Portal as part of your BarTender installation, you can add it. To do this, follow these steps:

1. Browse to and then double-click the BarTender installation package file. Alternatively, in Windows Control Panel, click **Programs**, click **Uninstall a program**, click **BarTender**, and then click **Change**.

2. In the **User Account Control** dialog, click **Yes**. The BarTender Setup wizard starts.

3. Click to select **Modify**, and then click **Next**.

4. On the **Advanced Installation Options** page, click to select **BarTender with Print Portal**, and then click **Next**.

5. Complete the remaining pages in the wizard.

After Print Portal is installed, you must associate it with your instance of Librarian. To do this, follow these steps:

1. In Windows, click the **Start** button, expand the **BarTender** folder, and then click **Print Portal**. Print Portal opens in a browser window.

2. Copy the Print Portal URL from the browser's address bar.

3. On the **Librarian Setup** page in Administration Console, paste the URL in the **Print Portal URL** field under **Other Options**.
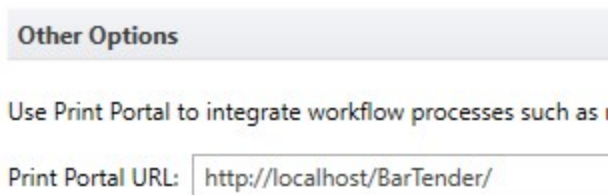

After you add Print Portal to the Librarian configuration, you can use the email variables that support the Print Portal approval pages when you configure email notifications for your workflows. These variables provide the buttons and links that your email recipient can use to access Print Portal to review and approve or reject documents. For more information about these variables, refer to Appendix C: Email Notification Variables.

Appendix A: Lifecycle Workflow Tutorial

This tutorial walks through a series of procedures that demonstrate how to create a workflow, how to create and apply a workflow rule to a file, and how to add a file to Librarian and then send it through the various workflow steps.

For this tutorial, you will use a preconfigured Lifecycle workflow template that includes sample state and transition objects, as shown in the following image.
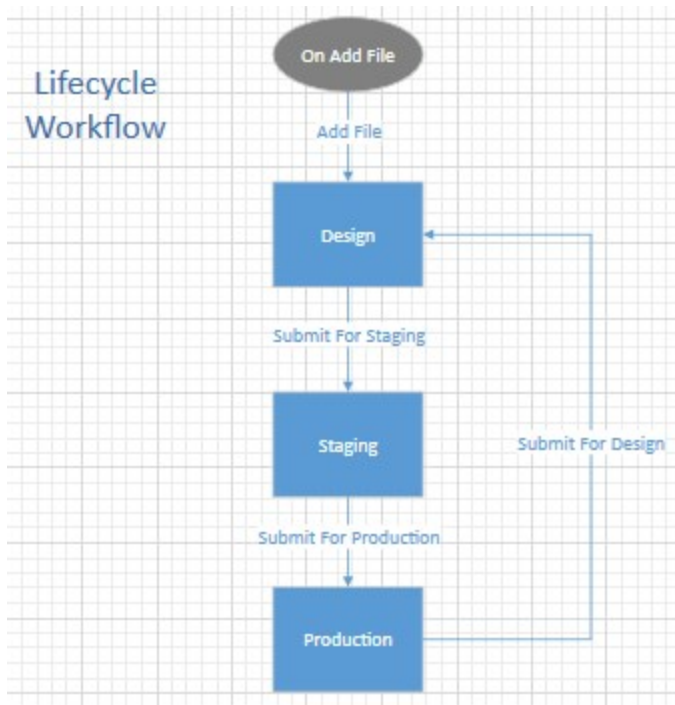
Prerequisites

Before you begin this tutorial, make sure that you have the following components in place:

- Windows 10 client with the latest updates installed

- BarTender 2021 or a later version of BarTender installed with the product key applied

- A BarTender (*.btw) document

Create the Workflow

In this procedure, you will access the Workflow Designer through Administration Console and then use it to create and configure a short workflow.

1. In Windows, click the **Start** button, expand the **BarTender** folder, and then click **Administration Console**.

2. In Administration Console, click **Librarian Setup** in the left navigation pane to open the **Librarian Setup** page.
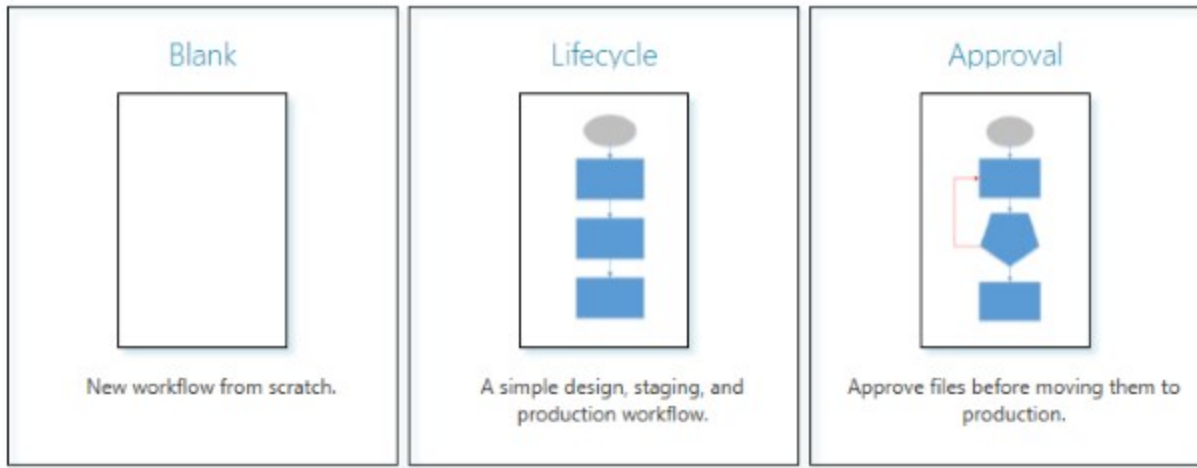
3. In the **Workflows** area, click **New Workflow**.
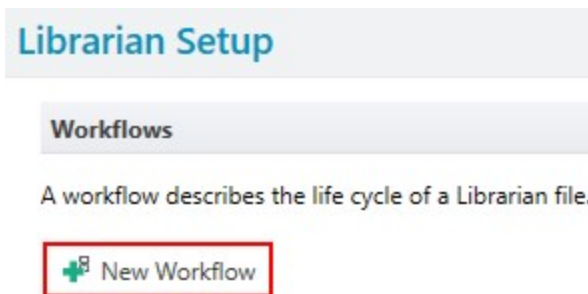
4. In the **Create New Workflow** dialog, three template options are provided: Blank, Lifecycle, and Approval. Click **Lifecycle**.

Create New Workflow

Pick a workflow template for your library or start from scratch.

Blank	Lifecycle	Approval
New workflow from scratch.	A simple design, staging, and production workflow.	Approve files before moving them to production.

The Workflow Designer opens and displays the workflow template.

5. On the design canvas, click each state and transition object, and notice the various object properties that are available in the properties pane to the right of the canvas. For now, leave the default settings.

6. Click **Validate Workflow**. When you do this, a process runs that verifies that the workflow elements are configured correctly so as to make the workflow design usable. You receive a message that indicates that your workflow design is verified.

Validate Workflow

Validate Workflow

Your workflow design is verified
This workflow design can be published.

7. Save your workflow. To do this, click the **Save** icon in the upper left corner to open the **Save Workflow** dialog. Name the workflow "Tutorial Workflow."
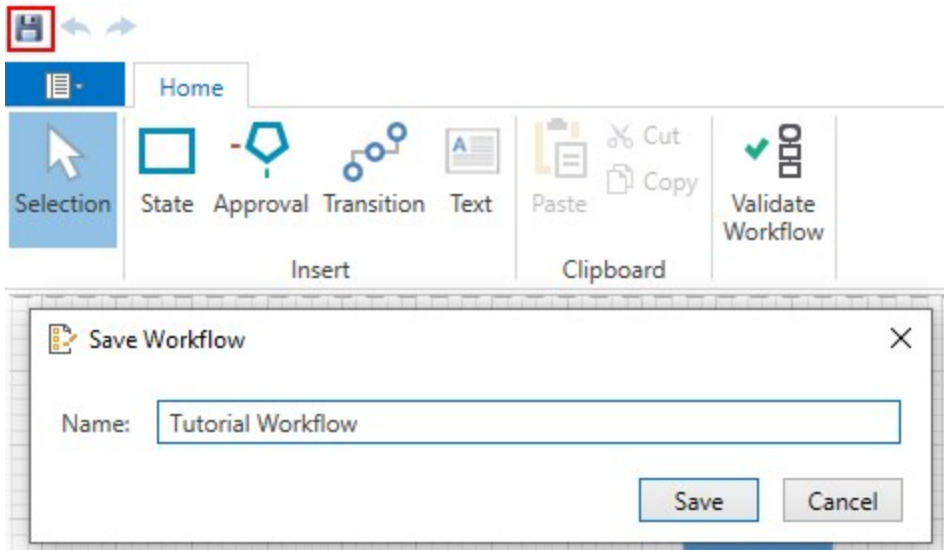
8. Close the Workflow Designer. Your new workflow appears in Administration Console in the **Workflows** area.

9. In the **Action** column for the workflow, click **Publish Changes**. When you do this, the workflow becomes available to Librarian, and you can now assign it to specific files and file types in Librarian. To do this, you create and use a workflow rule.

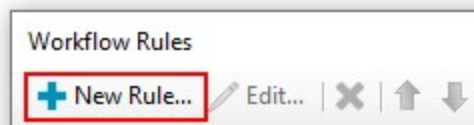## *Create a Workflow Rule to Assign the Workflow to a File Type*

In this procedure, you will create a workflow rule to assign your new workflow to Librarian files that have a specific file type (in this case, BarTender [*.btw] documents).

1. In Administration Console, in the **Workflow Rules** area of the **Librarian Setup** page, click **New Workflow Rule** to open the **Workflow Rules** dialog.

2. Click **New Rule** to open the **New Rule** dialog.

3. In the **For files in Librarian folder(s)** field, add an asterisk character (*) after **lib://** so that the text in that field is **lib://***. This specifies that the workflow is applied to all files in the lib:// folder and in all of its subfolders.

4. In the **With file type(s)** field, enter ***.btw**. This specifies that the workflow is applied to all BarTender document files.

5. Make sure that the **Use workflow** option is selected and that your workflow is selected in the **Workflow** list.

6. In the **Rule Comments** field, add a comment, such as "My first workflow rule for BTW files."

   The settings in the **New Rule** dialog should now be as shown.

7. Click **OK** to close the **New Rule** dialog. Your new workflow rule appears in the **Workflow Rules** dialog. Make sure that the **Enabled** check box is selected for the rule so that you can use it.

8. In the **Workflow Rules** dialog, click **Publish** to start the Publish Changes wizard, which validates the rule and displays any effect that the rule will have on existing files that it applies to.
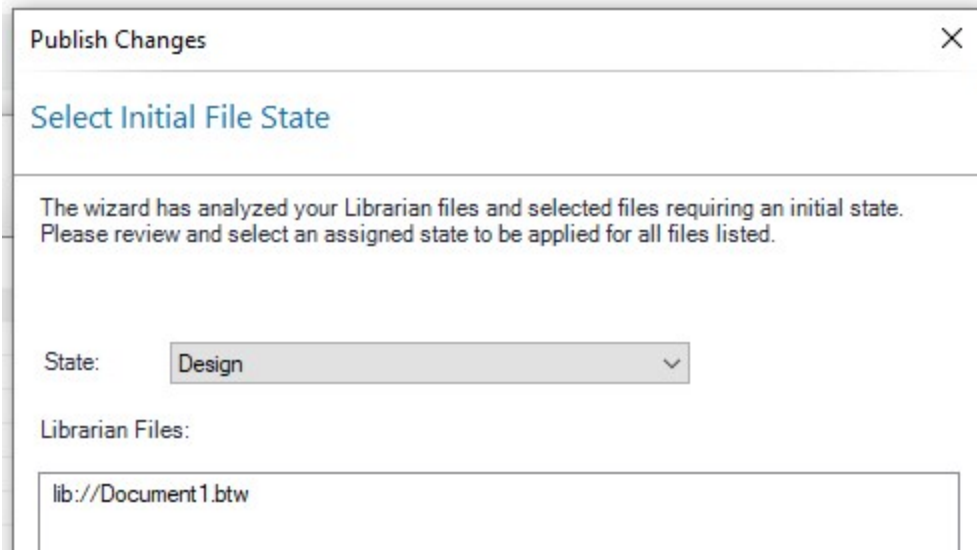
> This wizard examines every file that this rule and its associated workflow will affect when it is applied and alerts you to any workflow state changes that might occur. In the case of this tutorial, there are no changes that will occur, but in the case of existing files that a new rule applies to, you might need to decide how to handle the workflow state changes that might occur.
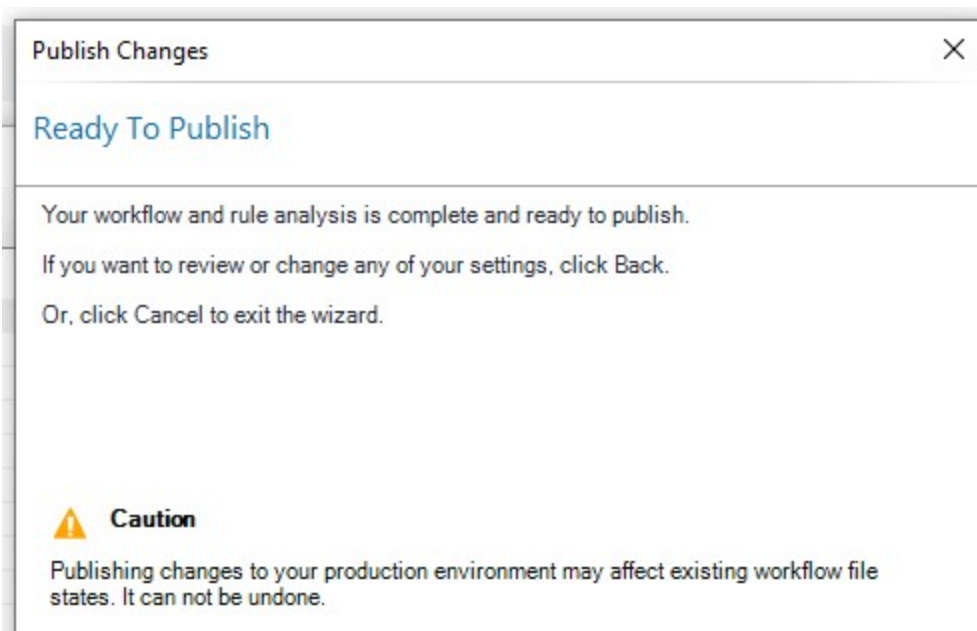
9. On the **Update Workflow and State Assignments** page of the wizard, enter a comment in the **Begin by entering a comment** field, and then click **Next**.

10. On the **Select Initial File State** page, click **Next**.

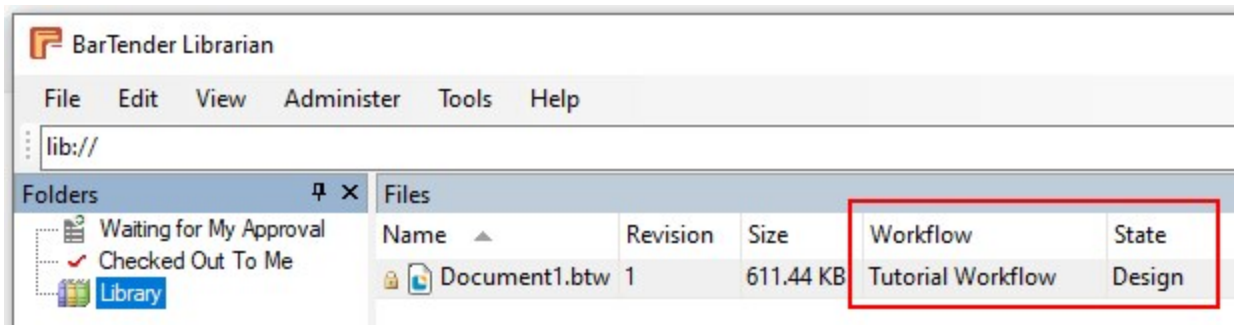11. On the **Ready to Publish** page, click **Publish**.

12. On the **Publishing Complete** page, click **Finish**.

    The workflow rule is displayed in the **Workflow Rules** area in Administration Console, and it will now apply your workflow to new files that you add to Librarian.

Add a Document to Librarian and Send It Through the Workflow

In this procedure, you will add a BarTender document to the Librarian folder that you specified in the workflow rule to assign that document to the workflow. You will then send the document through the workflow steps.

1. In Windows, click the **Start** button, expand the **BarTender** folder, and then click **Librarian**.

2. In Librarian, click **File**, and then click **Add**.

3. In the **Add Files** dialog, browse to and then double-click your BarTender document (*.btw) file.

4. Add a comment in the **Add File(s)** dialog, and then click **Add**. The file appear in the **Files** pane in Librarian. Notice that the **Workflow** and **State** columns display the name of your workflow ("Tutorial Workflow") and the current workflow state ("Design") for the document.


5. Right-click your BarTender document, and then point to **Transition**. Notice that the name of the next workflow transition ("Submit For Staging") is displayed. This is the name of the transition object that was configured in Workflow Designer for the transition between the Design state and the Staging state.
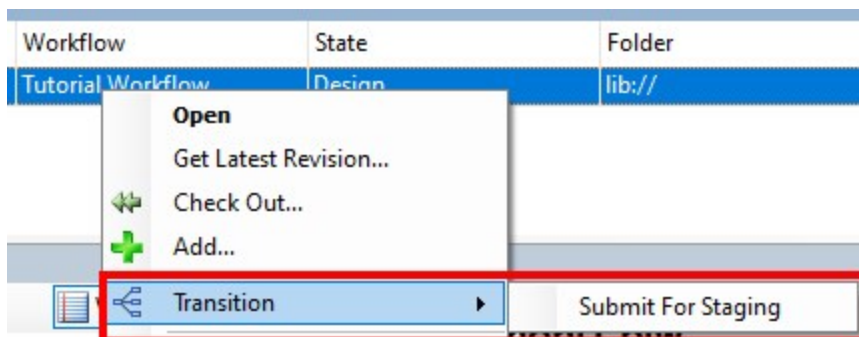
   Click **Submit For Staging**, add a comment in the **Submit For Staging** dialog, and then click **OK**.

6. In Librarian, notice that the **State** column in the **Files** pane now displays "Staging," just as was defined in the workflow.
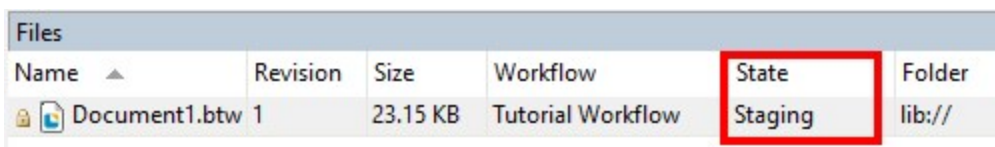
7. Move the document to the next state by using a different method. In the **Details** pane, which lists detailed information about the selected file and about the workflow, notice that the **Transition** field under **Workflow Information** displays the **Submit For Production** option that

was defined in the workflow.

Workflow Information:

Assigned To:	None
Workflow:	Tutorial Workflow
State:	Staging
Transitions:	Submit For Production

ⓘ Details   🖼 Preview

Click **Submit For Production**. Notice that the **State** column in the **Files** pane now displays "Production."

Files

Name ▲	Revision	Size	Workflow	State	Folder
🔒 📄 Document1.btw	1	31.90 KB	Tutorial Workflow	Production	lib://

You have now successfully built and run your first workflow. This was a short life cycle workflow, and you can build on it by adding more states and transitions as needed, by adding email notifications for each step, and by integrating Print Portal functionality. For more information about how to do these things, refer to the following chapters in this document:

- Workflow Designer
- Workflow Email Notifications
- Print Portal Workflow Support

Appendix B: Approval Workflow Tutorial

This tutorial walks through a series of procedures that demonstrate how to do the following:

- Create a workflow that includes a step in which a reviewer must approve or reject a file

- Configure email notifications for the "approve or reject" option that incorporate Print Portal functionality

- Create a workflow rule to apply the workflow to a file type (in this case, a BarTender [*.btw] document)

- Add Print Portal to the Librarian configuration so that you can use its functionality to review and approve or reject the document

- Add the document to Librarian and then send it through the workflow up to the "approve or reject" step, which will trigger the email notification to be sent

- Use the **Review and Approve** button in the email message to access Print Portal to approve the document and send it to production

For this tutorial, you will use a preconfigured Approval workflow template that includes the necessary state and transition objects and one "approve or reject" review option, as shown in the following image.
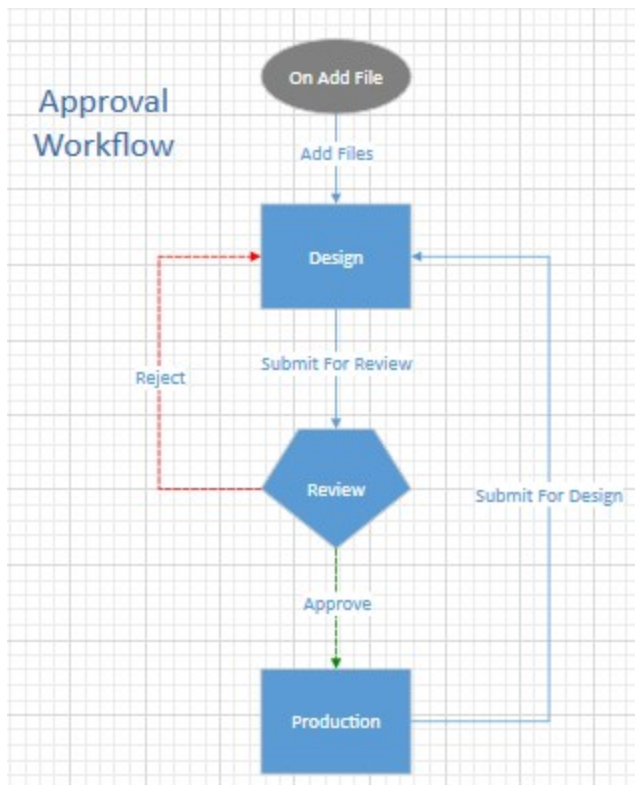

Prerequisites

Before you begin this tutorial, make sure that you have the following components in place:

- Windows 10 client with the latest updates installed

- BarTender 2021 or a later version of BarTender installed with Print Portal and with the product key applied

- A BarTender (*.btw) document

- An SMTP email server that was configured by using the **Email Servers** page in Administration Console
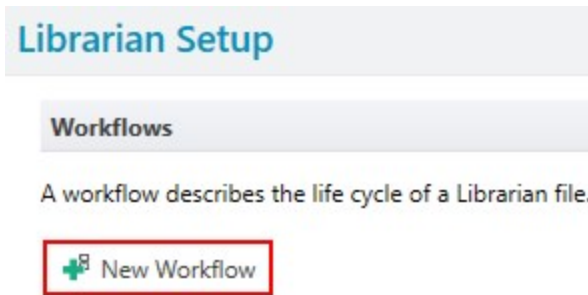
Create the Approval Workflow

In this procedure, you will access the Workflow Designer through Administration Console and then use it to create and configure a short workflow that includes "approve" and "reject" options and email notification settings.

1. In Windows, click the **Start** button, expand the **BarTender** folder, and then click **Administration Console**.

2. In Administration Console, click **Librarian Setup** in the left navigation pane to open the **Librarian Setup** page.
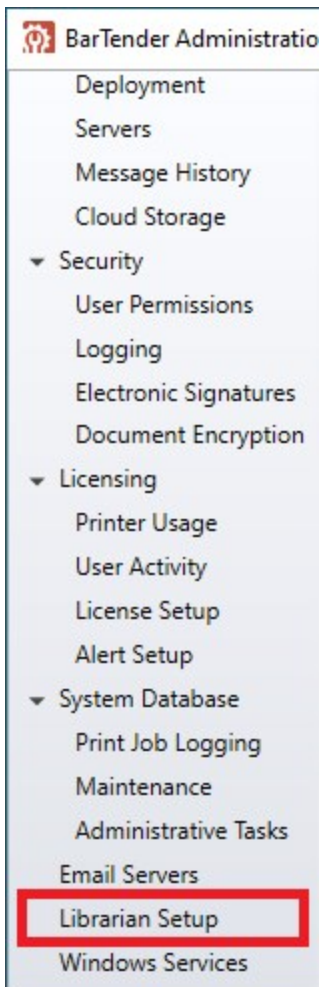
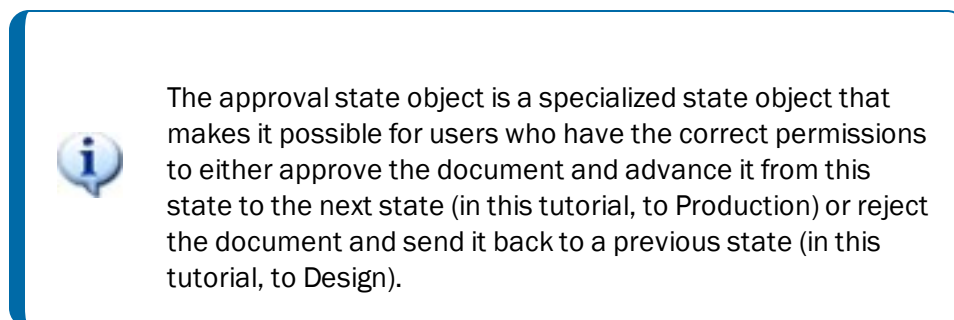3. In the **Workflows** area, click **New Workflow**.

4. In the **Create New Workflow** dialog, three template options are provided: Blank, Lifecycle, and Approval. Click **Approval**.
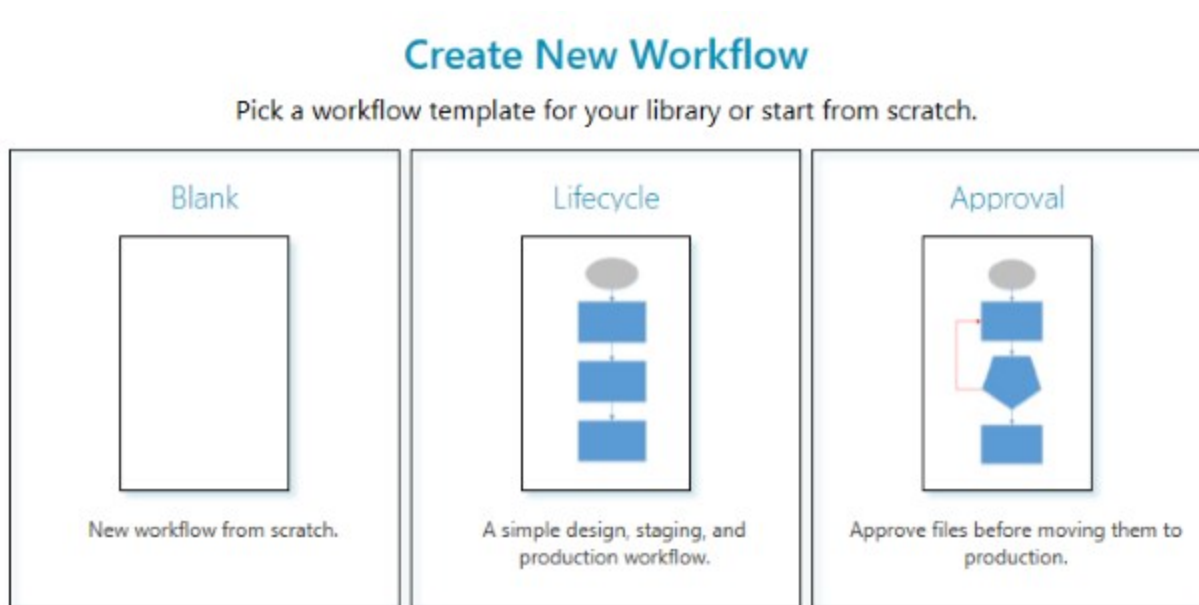
The Workflow Designer opens and displays the workflow template.

5. Click the approval state object (the pentagon that is labeled **Review**), and then click the **General** tab in the **Approval State** property pane.

> The approval state object is a specialized state object that makes it possible for users who have the correct permissions to either approve the document and advance it from this state to the next state (in this tutorial, to Production) or reject the document and send it back to a previous state (in this tutorial, to Design).

6. Under **Before leaving state**, click to select **All members must approve**. This specifies that all of the users and groups that are listed in the **Assigned members** field are required to approve the document.

> When you create your own workflows, you can use the other options to specify that any member or a specific number of members in the **Assigned members** list is needed to approve or reject the document.

7. Under the **Assigned members** field, click **Add** to open the **Add User or Group** dialog.

8. In the **Add User or Group** dialog, select the Windows alias that you used to log in to the Windows 10 client computer, and then click **OK**. Your Windows 10 alias appears in the **Assigned members** list.

9. Configure email notifications for the Review state object and its associated Approve and Reject transition objects. To do this, follow these steps:

   a. On the design canvas, select the Review state object (the pentagon that is labeled **Review**).

   b. In the **Approval State** property pane to the right of the design canvas, click the **Notifications** tab, and then click to select the **Send approval notification** check box.

c. Click **Setup** to open the **Approval Notification** dialog.

This dialog is preconfigured to include the email server that you configured in Administration Console and several variables that will be substituted with data when the email message is sent. For example, the %FileName% variable that appears in the **Subject** line of the email message will be substituted with the name of the file that is being sent for review. For now, leave the default settings and click **OK** to close the dialog.

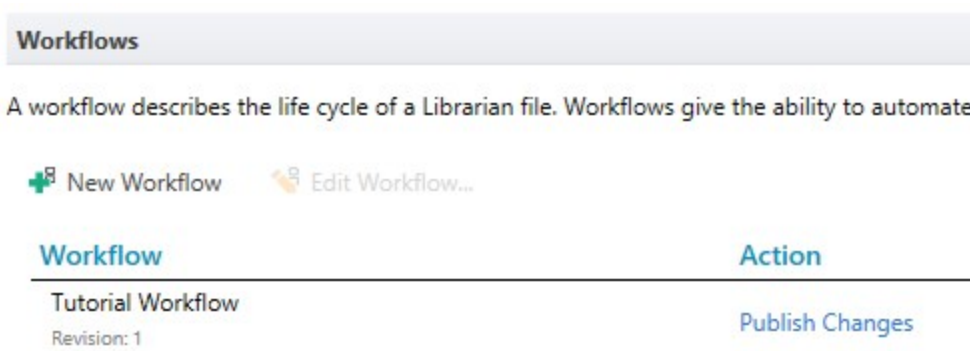d. Repeat steps a to c for the Approve and Reject transition objects.

10. Click **Validate Workflow**. You receive a message that indicates that your workflow design is verified.

11. Save your workflow. To do this, click the **Save** icon in the upper left corner to open the **Save Workflow** dialog. Name the workflow "Tutorial Workflow."
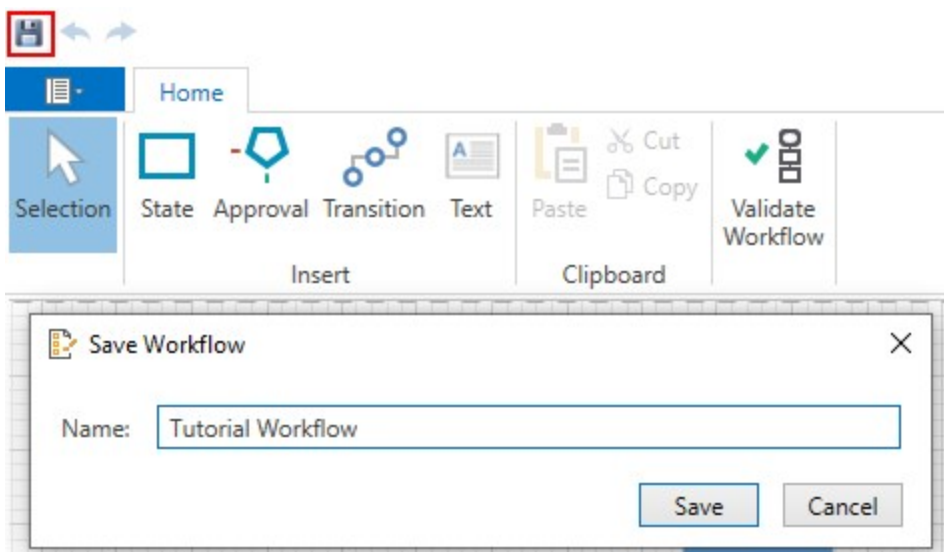
12. Close the Workflow Designer. Your new workflow appears in Administration Console in the **Workflows** area.

13. In the **Action** column for the workflow, click **Publish Changes**. When you do this, the workflow becomes available to Librarian, and you can now assign it to specific files and file types in Librarian. To do this, you create and use a workflow rule.

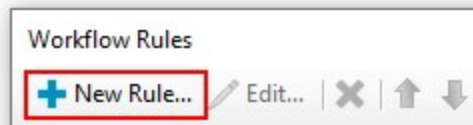### Create a Workflow Rule to Assign the Workflow to a File Type

In this procedure, you will create a workflow rule to assign your new workflow to Librarian files that have a specific file type (in this case, BarTender [*.btw] documents).

1. In Administration Console, in the **Workflow Rules** area of the **Librarian Setup** page, click **New Workflow Rule** to open the **Workflow Rules** dialog.

2. Click **New Rule** to open the **New Rule** dialog.

Workflow Rules

Workflow rules assign specific workflows to Librarian file types

New Workflow Rule

Workflow Rules

New Rule... / Edit... | ✖ | ⬆ ⬇

3. In the **For files in Librarian folder(s)** field, add an asterisk character (*) after **lib://** so that the text in that field is **lib://***. This specifies that the workflow is applied to all files in the lib:// folder and in all of its subfolders.

4. In the **With file type(s)** field, enter ***.btw**. This specifies that the workflow is applied to all BarTender document files.

5. Make sure that the **Use workflow** option is selected and that your workflow is selected in the **Workflow** list.

6. In the **Rule Comments** field, add a comment, such as "My first workflow rule for BTW files."

   The settings in the **New Rule** dialog should now be as shown.

7. Click **OK** to close the **New Rule** dialog. Your new workflow rule appears in the **Workflow Rules** dialog. Make sure that the **Enabled** check box is selected for the rule so that you can use it.

8. In the **Workflow Rules** dialog, click **Publish** to start the Publish Changes wizard, which validates the rule and displays any effect that the rule will have on existing documents that it applies to.
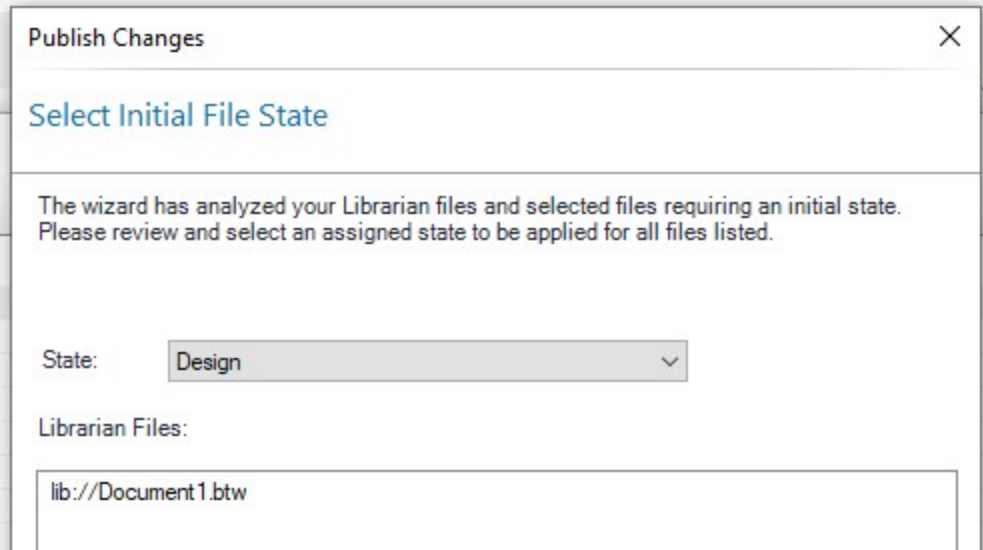
> This wizard examines every file that this rule and its associated workflow will affect when it is applied and alerts you to any workflow state changes that might occur. In the case of this tutorial, there are no changes that will occur, but in the case of existing files that a new rule applies to, you might need to decide how to handle the workflow state changes that might occur.
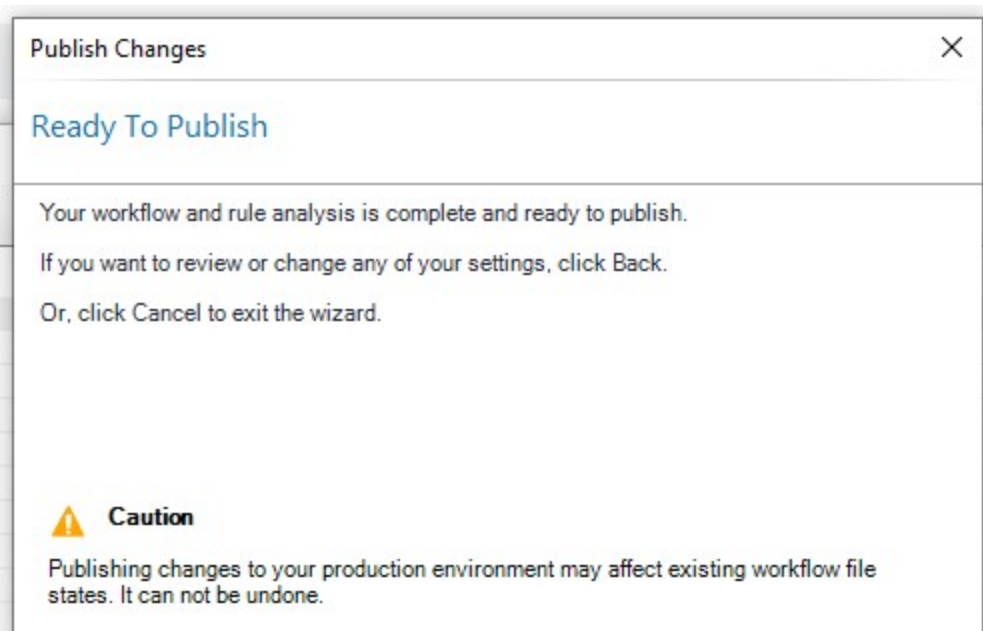
9. On the **Update Workflow and State Assignments** page of the wizard, enter a comment in the **Begin by entering a comment** field, and then click **Next**.

10. On the **Select Initial File State** page, click **Next**.

Publish Changes ✕

Select Initial File State

The wizard has analyzed your Librarian files and selected files requiring an initial state. Please review and select an assigned state to be applied for all files listed.

State: [Design ⌄]

Librarian Files:

lib://Document1.btw

11. On the **Ready to Publish** page, click **Publish**.

Publish Changes ✕

Ready To Publish

Your workflow and rule analysis is complete and ready to publish.

If you want to review or change any of your settings, click Back.

Or, click Cancel to exit the wizard.

⚠ **Caution**

Publishing changes to your production environment may affect existing workflow file states. It can not be undone.

12. On the **Publishing Complete** page, click **Finish**.

The workflow rule is displayed in the **Workflow Rules** area in Administration Console, and it will now apply your workflow to new files that you add to Librarian.

Add Print Portal to the Librarian Configuration

In this procedure, you will add Print Portal to the Librarian configuration so that you can use its functionality to review the document and approve or reject it.
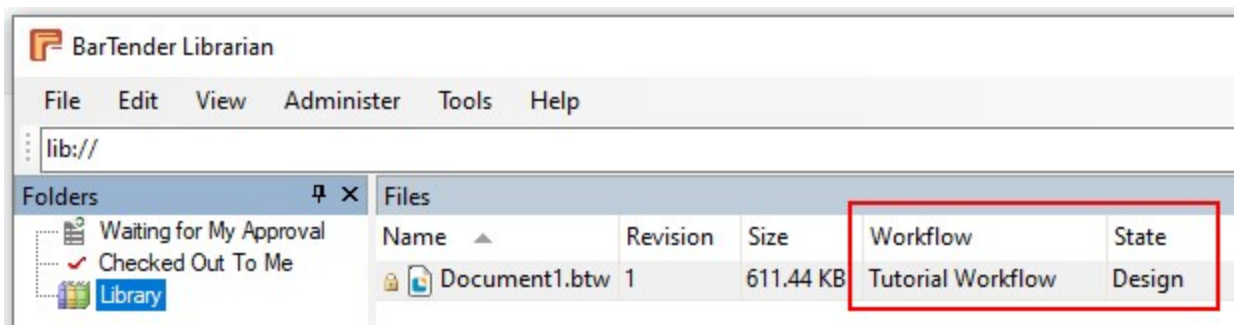
1. In Windows, click the **Start** button, expand the **BarTender** folder, and then click **Print Portal**. Print Portal opens in a browser window.

2. Copy the Print Portal URL from the browser's address bar.

3. On the **Librarian Setup** page in Administration Console, paste the URL in the **Print Portal URL** field under **Other Options**.
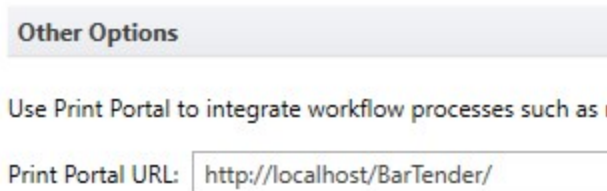

Add a Document to Librarian and Send It to Review

In this procedure, you will add a BarTender document to the Librarian folder that you specified in the workflow rule to assign that document to the workflow. You will then send the document through the workflow to the Review state.

1. In Windows, click the **Start** button, expand the **BarTender** folder, and then click **Librarian**.

2. In Librarian, click **File**, and then click **Add**.

3. In the **Add Files** dialog, browse to and then double-click your BarTender document (*.btw) file.

4. Add a comment in the **Add File(s)** dialog, and then click **Add**. The file appear in the **Files** pane in Librarian. Notice that the **Workflow** and **State** columns display the name of your workflow ("Tutorial Workflow") and the current workflow state ("Design") for the document.

5. Right-click your BarTender document, and then point to **Transition**. Notice that the name of the next workflow transition ("Submit For Review") is displayed. This is the name of the transition object that was configured in Workflow Designer for the transition between the Design state and the Review state.
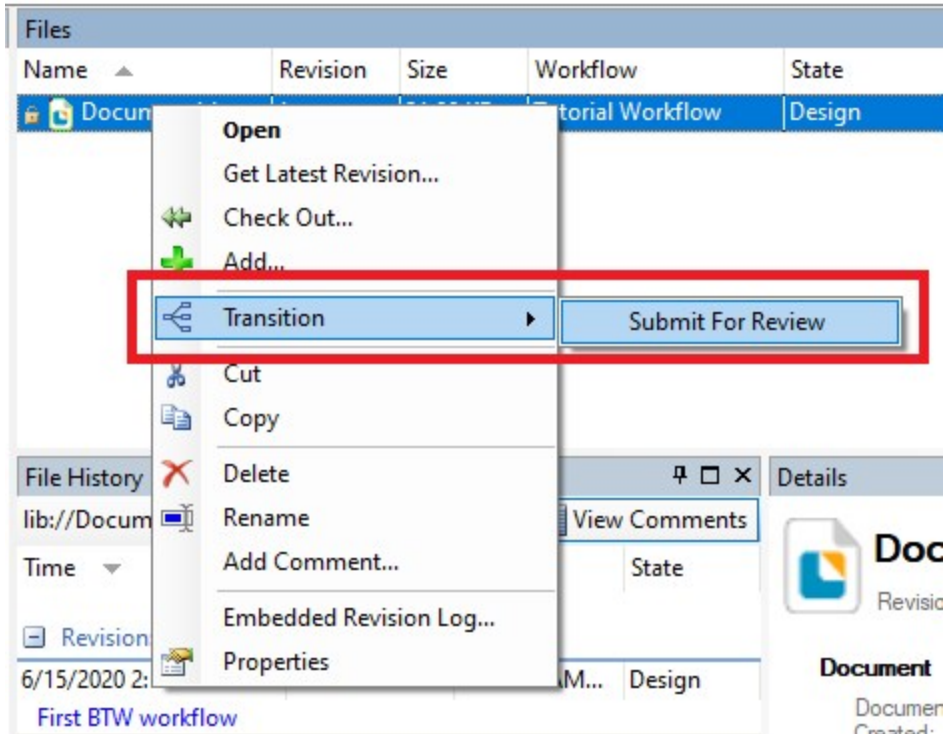
Click **Submit For Review**, add a comment in the **Submit For Review** dialog, and then click **OK**.

6. In Librarian, notice that the **State** column in the **Files** pane now displays "Review," just as was defined in the workflow.

7. In your email client, look for the email notification message that Librarian sent. The subject line will say "<FileName>.btw is ready for review," and the message body resembles the following.

Use Print Portal to Approve the Document and Sent It to Production

In this procedure, you will use the **Review and Approve** button in the email notification to access Print Portal so that you can review and approve the document and send it to the Production state. This procedure simulates what a reviewer would experience.

1. In the email notification message from the previous procedure, click **Review and Approve**. Print Portal opens in a browser window and displays the **Workflow Transition** page.

2. Under **Select the workflow step to apply to this request**, select **Approve**.

Document1.btw

Revision 1

State: Review

Select the workflow step to apply to this request:

○ Reject
◉ Approve

Add a comment (required)

This design is approved.

Print   Submit

3. Add a comment in the **Add comment (required)** field, and then click **Submit**. When the operation succeeds, a green check mark is displayed. Notice that the new workflow state is "Production," as was defined in the workflow.

Document1.btw

Revision 1

State: Production

Approved

By: DESKTOP-
Date: 7/14/2020
Time: 5:11:00 PM

Print   Continue Workflow Step

4. On the **Home** page in Print Portal, notice that the document appears in the document selection pane for the Librarian root folder. This verifies that the document is in a production state and is ready to be printed.

Home / Librarian

> ▶ 📁 Templates
> 📁 Librarian

Document1
Jul 13, 2020
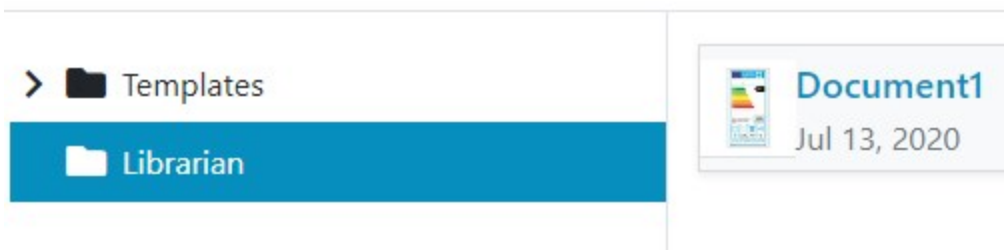
You have now successfully built and run a workflow that included email notifications and Print Portal integration. This was a short "approve or reject" workflow, which you can build on by adding more states, transitions, and email notifications as needed. For more information about how to do these things, refer to the following chapters in this document:

- Workflow Designer
- Workflow Email Notifications
- Print Portal Workflow Support

Appendix C: Email Notification Variables

When you configure a notification email message to be sent when a file moves through a particular state or transition in a workflow, you can add variables to the message body so that information about the file and/or workflow is included automatically in the email message. You can also use variables to add buttons or links to the email message that incorporate Print Portal approval processes.
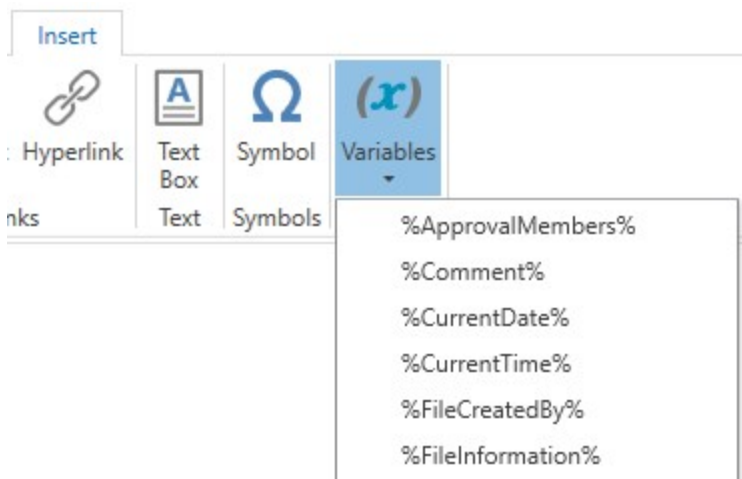
These variables are listed in the **Variables** list on the **Insert** tab of the **Notification** dialog. The variables that are available in the list vary depending on the properties of the file and on the type of workflow object that you are configuring a notification for.

To add a variable to your email, use one of the following methods:

- Right-click the message body, point to **Insert Workflow Variables**, and then click the variable that you want.
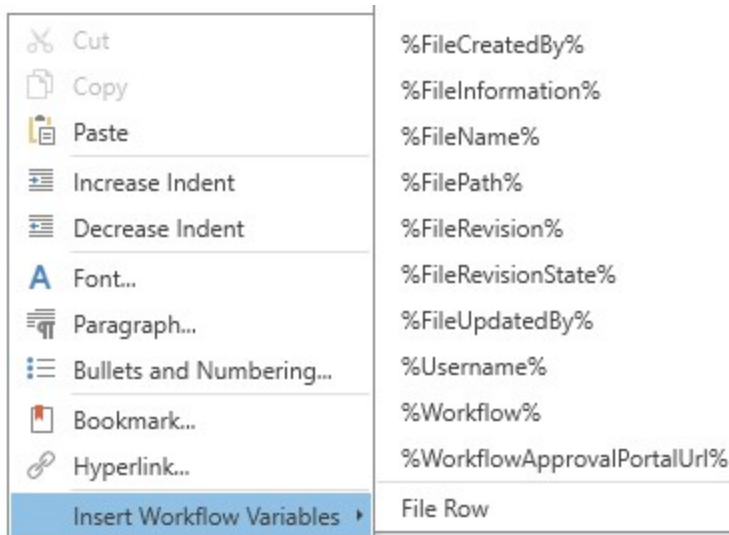
- On the **Insert** tab, click **Variables**, and then click the variable that you want.

The following table describes these variables.

Variable	Description
%ApprovalMembers%	Displays a list of approval member names, separated by semicolons (available only for domain users and groups) Using this variable can slow performance. We recommend that you do not use this variable in high-throughput environments.
%Comment%	Displays the comment that was entered by the user who performed the last transition
%CurrentDate%	Displays the date when the notification was sent
%CurrentTime%	Displays the time when the notification was sent
%FileCreatedBy%	Displays the name of the user who created the latest file revision
%FileInformation%	Displays file information (such as Name, Created By, and Created Date) in a panel
%FileLastModified%	Displays the date when the file was last modified
%FileName%	Displays the name of the file
%FilePath%	Displays the directory path of the file in Librarian
%FileRevision%	Displays the current revision of the file
%FileRevisionState%	Displays the current state of the file revision
%FileUpdatedBy%	Displays the name of the user who last updated the file history for the latest revision
%Username%	Displays the name of the user who ran the transition that caused the email notification message to be sent
%Workflow%	Displays the name of the workflow that the file is assigned to
%WorkflowApprovalActionButtons%	Provides "Approve" and "Reject" buttons
%WorkflowApprovalPortalButton%	Provides a "Review and Approve" button for approval processes that use Print Portal
%WorkflowApprovalPortalUrl%	Provides a URL hyperlink for approval processes that use Print Portal

You can use a file row in the email message body to apply variables to multiple files. To do this, click **File Row** in the **Variables** list to add the following variables to the message body.

Variable	Description
%BeginFileRow%	Marks the beginning of a file row, which applies the variables that follow this variable to multiple files
%EndFileRow%	Marks the end of a file row, which applies the variables that precede this variable to multiple files

Related Documentation

Technical Documents

- *Librarian*
- *Print Portal*
- *Administration Console*

To view and download technical documents, visit:

https://www.seagullscientific.com/resources/white-papers/

User Guides

- *Getting Started with BarTender*
  https://support.seagullscientific.com/hc/categories/200267887

BarTender Help System

- Librarian Setup

Other Resources

Please visit the BarTender website at *https://www.seagullscientific.com*.