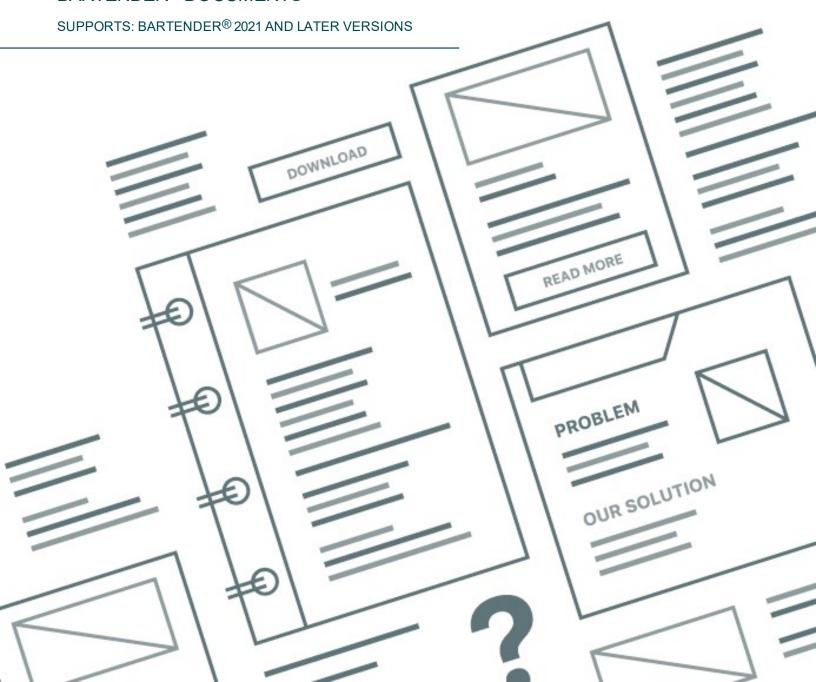


BarTender Print Portal

WEB-BASED SOFTWARE FOR PRINTING BARTENDER® DOCUMENTS



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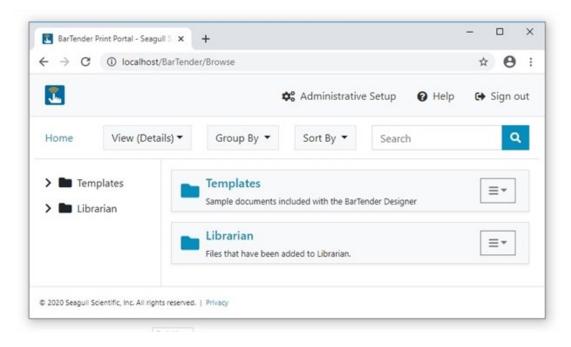
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Overview

BarTender Print Portal is a web-based application that provides an interface that makes it quick and easy to locate and print BarTender documents. Because Print Portal runs on a web server, you can use it to access BarTender documents from any computer that is connected to the Internet. Users can print documents by browsing to a web page that is hosted by a server that has BarTender installed.

By using the built-in security measures, administrators can require users to log on to the site and can assign user permissions that grant access to specific root folders on the server to specific users and groups. The intuitive interface makes it easy for users to quickly locate the document that they need to print and to send it to the printer with a single click.





In versions of BarTender that are earlier than BarTender 2016, this application was called Web Print Server (WPS).

Installing Print Portal

When you install Print Portal, consider the following installation requirements:

- BarTender and Print Portal must be installed on your web server.
- Microsoft Internet Information Services (IIS) must be installed. The BarTender installer automatically installs this component.

Print Portal supports all web browsers and all versions of Windows that are supported by Microsoft.

Print Portal is included in the BarTender installation package, but it is an optional component and is not automatically installed.

For detailed instructions about how to install BarTender, the BarTender System Database or printer drivers, refer to the <u>Getting Started with BarTender</u> help topic or the <u>Getting Started with BarTender</u> manual, which you can open from the BarTender help menu.

Configuring Your Installation

IIS_WEBPRINT Account Permissions

An IIS_WEBPRINT user account is required to run BarTender and to access local and network printers. This account is automatically created by the BarTender installer when you install Print Portal. By default, this account is assigned administrative security permissions, so it can control access to BarTender, local and network printers, and documents on the hosted web service site. Depending on your environment, you might want to modify these default settings.

Site Administration

You can specify the Print Portal configuration settings by using the **Administrative Setup** page. Use this page to add and configure access to the root folders that contain the BarTender documents, to configure client print settings, and to enable authentication and other security settings. You can access this page by using the following URL:

http://localhost/BarTender/Settings

BarTender Documents

The Print Portal **Home** page displays the root folders, which are specified on the **Administrative Setup** page and which display the documents that are available for previewing and printing, including a variety of sample documents. If you are using Librarian, the folders and documents that are stored there are also displayed on the **Home** page.

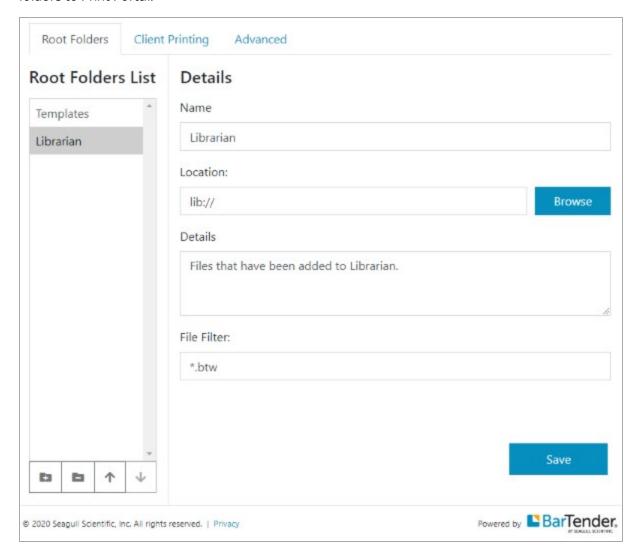
You can access the **Home** page by using the following URL:

http://localhost/BarTender/Browse

You can remove, modify, or add to the installed sample documents, and changes that you make to the Librarian repository are shown on the **Home** page. You can also create new root folders by adding the folders to the following directory:

C:\inetpub\wwwroot\BarTender\wwwroot

Then, use the **Root Folders** property page of the **Administrative Setup** page to add the new folders to Print Portal.



Supported Printing Technologies

By using Print Portal, anyone can print BarTender documents remotely, no matter what kind of device, operating system, or Internet browser is being used.

BarTender Client Print Service

The BarTender Client Print service is a Windows-based service that is designed by Seagull Scientific. By installing this service on any Windows device, users can print to any printer that is connected to their device.

The first time that client users use Print Portal to print a document, they are prompted to install the Client Print service. After the service is installed, users can send print jobs to the client printer and any other shared printers on Print Portal.

Driverless printing is also supported. This means that when a printer is connected to the client device but the Print Portal server does not have a driver installed for that printer, the server can still stream a printable file to the client printer without using the driver.

Security

Whether you're a small business or a huge enterprise, it's important to protect your BarTender documents and printing environment. When you use Print Portal, you can implement many security methods to ensure that every user has the appropriate access to document folders and administrative settings.

User Authentication and Administrative Security



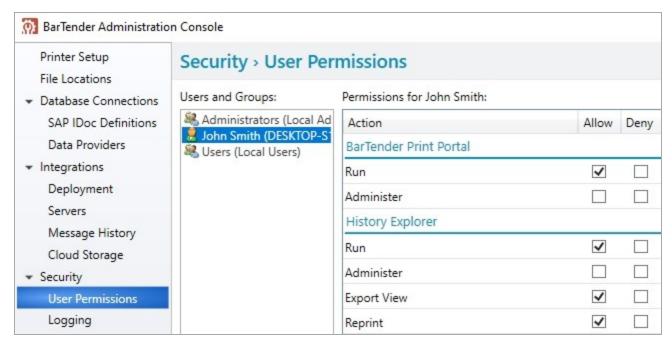
To use authentication securely, we strongly recommend that your system use the HTTPS protocol. This requires that a security certificate and HTTPS binding are configured for the Print Portal website in IIS.

As an administrator, you can configure Print Portal so that users must log on by using their Windows accounts. To do this, you must enable security and configure permissions in Administration Console and also enable authentication on the **Administrative Setup** page of Print Portal.

When you enable authentication, user access to Print Portal and the **Administrative Setup** page is determined by the user permissions that are configured in Administration Console, as follows:

- Users who have the **Run** permission can access the main Print Portal window and can browse for and then print documents.
- Users who have the Administer permission can access and modify settings on the Administrative Setup page.

For more information about how to configure user permissions in Administration Console, refer to Defining User Permissions in the BarTender help system.



Configuring Single Sign-On (SSO)

Enabling Windows Authentication

You can configure Print Portal to automatically sign users on by using their Windows credentials. To do this, first make sure that the Windows Authentication Internet Information Services (IIS) feature is enabled in Windows. Then, in IIS, turn off Anonymous Authentication and enable Windows Authentication for the Print Portal website.

For security reasons, the Windows Authentication feature in IIS is turned off by default. To enable this feature, follow these steps in Windows:

- 1. In Control Panel, click **Programs**, and then click **Turn Windows features on or off** to open the **Windows Features** dialog.
- In the Windows Features dialog, expand Internet Information Services, expand World Wide Web Services, expand Security, and then click to select the Windows Authentication check box.
- 3. Click OK.

After you enable Windows Authentication, open the IIS Management Console, locate the Print Portal website, and then double-click to display the authentication settings. Set **Anonymous Authentication** to **Disabled**, and set **Windows Authentication** to **Enabled**.



If you are using Mozilla Firefox as your browser, you need to make a configuration change to automatically pass Windows credentials. For more information, visit the following website:

https://docs.secureauth.com/display/KBA/Enable+Integrated+Windows+Authentication+%28IWA%29+in+Mozilla+Firefox

Using Active Directory

Print Portal also supports Active Directory Federation Services (AD FS) integration as an SSO solution. To configure this, use the following procedures:

In the AD FS Management snap-in for the Microsoft Management Console, add a new relying party trust. To do this, use the Add Relying Party Trust wizard to configure the following settings:

- 1. Click to select the **Enter data about the relying party manually** option and make sure that token encryption is not specified.
- Click to select the Enable support for the WS-Federation Passive protocol
 check box, and then enter the root URL of Print Portal as the relying party
 protocol URL.
- 3. Click to select the **Open the Edit Claim Rules dialog for this relying party trust when the wizard closes** check box, close the wizard, and then add a claim rule to transform the SAM-Account-Name LDAP attribute to the Name ID claim.

In Print Portal, follow these steps:

- 1. Stop the application pool.
- 2. Make sure that the website is configured to use an HTTPS binding. An HTTP binding will not work.
- 3. Edit the application's config.xml file.
- 4. In the Authentication node, make sure that **Enabled** is set to "true", and then change **Mode** to "ADFS".
- 5. Provide the metadata address that corresponds to the ADFS server.
- 6. Enter the root Print Portal URL in the **RelyingPartyURL** field. This URL must exactly match the URL that you configured in the AD FS Add Relying Party Trust wizard.
- 7. Start the application pool.

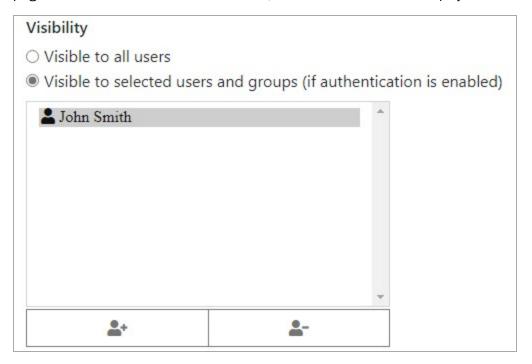
For more information, visit the following Microsoft website:

https://docs.microsoft.com/en-us/aspnet/core/security/authentication/ws-federation?view=aspnetcore-2.2

Root Folder Visibility

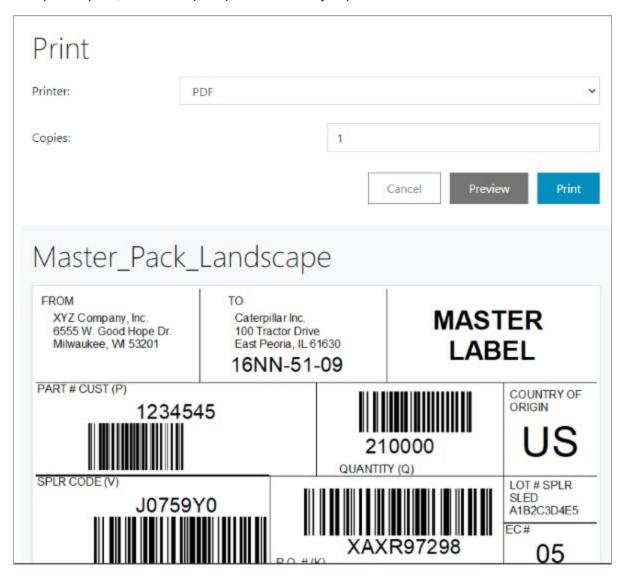
After you enable authentication for Print Portal, you can additionally secure a specific set of documents by limiting the visibility of the root folder that contains them to only specific users or groups. Any user or group that is not specifically granted visibility to the folder cannot see the folder in the document browser and therefore cannot print the documents in the folder. We strongly recommend that you make sure that all sensitive documents are saved to the secured root folders.

To configure root folder visibility, use the **Root Folders** property page of the **Administrative Setup** page in Print Portal. For more information, refer to the Print Portal help system.



Printing Documents

Printing documents by using Print Portal is as easy as locating the document and then clicking it. When you do this, the **Print** page opens, which you can use to change the printer, specify the number of copies to print, and view a print preview before you print the document.



After you start a print job, Print Portal displays any data entry forms and record selection dialogs that are defined in the document. This means that users can enter data or search a database for specific records at print time.

All modern browsers on Windows, Mac, Linux, and Android operating systems are fully supported for user-based printing, including Microsoft Edge, Google Chrome, Mozilla Firefox, and Apple Safari. The BarTender web applications are designed to use technologies that are widely supported on mobile devices. Print Portal has been tested with a variety of tablets and smart phones to ensure that you can seamlessly access your documents from any device.

Using Librarian with Print Portal

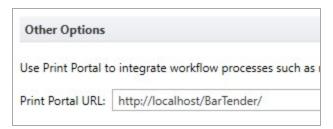
Librarian is the BarTender Suite companion application that provides a content management system for your BarTender documents. When you use Librarian, you create a revision history for your documents that tracks all the changes to the document design and all the user comments that accompany each revision. You can also configure workflows for documents that are stored in Librarian so that you can easily manage a document's status as it moves from first draft to final published state.



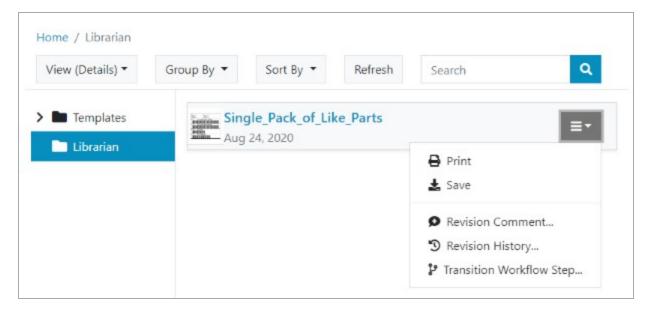
When documents are assigned to a workflow, only those documents that are in a Production state are visible on the Print Portal **Home** page. This includes documents for which the **Set as production** (published) option is selected in the workflow.

When you integrate Print Portal with Librarian, the revision history and Production workflow states (if any) that are stored in Librarian are exposed in Print Portal, so Print Portal users can verify the document version, compare revisions, add revision comments, and move a document to its next workflow state as needed. Any changes that are made in Print Portal (such as adding a comment or changing a workflow state) are immediately reflected in Librarian, and vice versa. To perform these Librarian functions on the client requires only the web browser, which reduces or eliminates the need to install a full version of BarTender.

To integrate Print Portal with Librarian, enter the Print Portal URL under **Other Options** on the **Librarian Setup** page in Administration Console, as shown.



To access revision history and workflow options for a document that is stored in the Librarian root folder, first locate the document in the document selection pane of the Print Portal **Home** page, make sure that **View (Details)** is selected so that the icon is displayed for the document, and then click for the document that you want.



The following options are available:

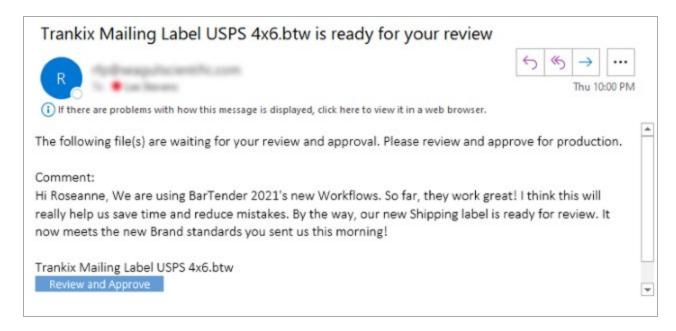
- **Print**: Opens the **Print** page so that you can preview and print the document.
- Save: Downloads the document to the local computer.
- Revision Comment: Opens the Revision Comment dialog, which you can use to add a comment to the selected document revision.
- **Revision History**: Opens the **Revision History** page, which you can use to view and compare different versions of the selected document.
- Transition Workflow Step: Opens the Transition Workflow Step dialog, which you can use (when you have the correct permissions) to change the workflow state for the selected document revision.



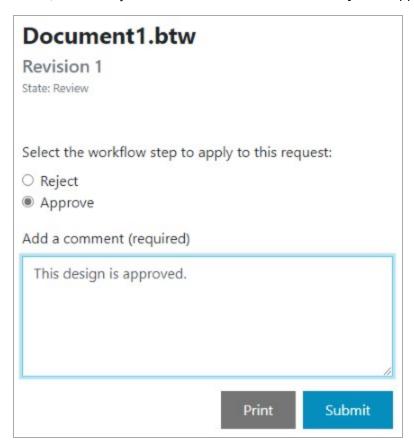
For more information about workflows, the Workflow Designer, and document revisions, refer to the <u>Librarian</u> Setup section of the Administration Console help system.

Reviewing and Approving Documents

Your workflows can include review and approval processes that use email notifications to alert specified users and groups that documents are ready for their review. When you integrate Print Portal with Librarian, your email notification messages can include a **Review and Approve** button that links directly to Print Portal.



When your reviewers click the **Review and Approve** button, the BarTender document opens in Print Portal, where they can view the document and then reject or approve it.



When your reviewers select **Reject** or **Approve** and then click **Submit**, the document moves to the state that you configured in the workflow for the Reject or Approve transition.

Adding Your Branding to Print Portal

You can replace the default Print Portal branding with your company's branding. You can replace the Print Portal icon with an icon of your company logo (or other image) and change the colors of items in the user interface to your company's branded colors. To do this, click the **Branding** tab on the **Administrative Setup** page.

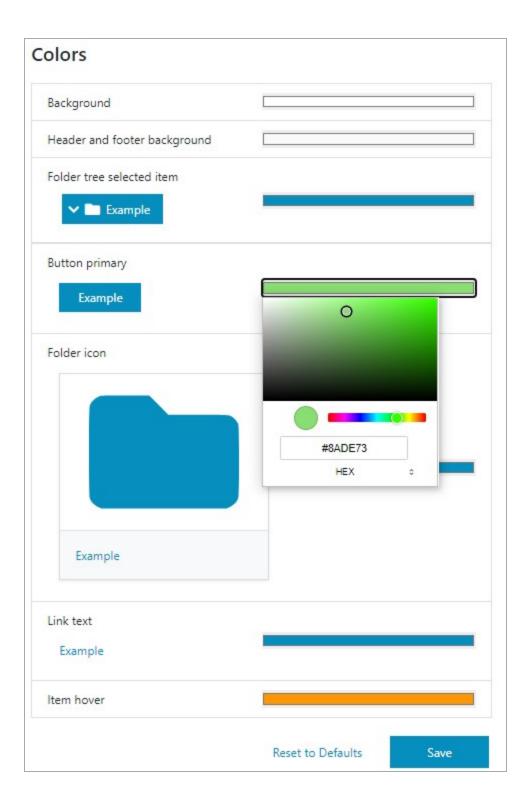
Add Your Logo

To replace the default icon with an icon of your company logo or other image, click **Select new brand icon**, browse to and select the image file that you want to use, and then click **Open**.



Add Your Colors

To change the default colors for the various user interface items (such as links and folder icons) to your company's branded colors, click the color selection bar next to each item whose color you want to change, and then select the color that you want.



Automating Print Portal

The Print Portal REST API is provided to support your needs for Print Portal automation. By using automation, you can integrate Print Portal with other applications to programmatically complete many of the Print Portal functions.



A REST API is a software architectural style for acquiring and manipulating textual representations of the content of web resources. The Print Portal REST API represents data in JSON format, so data that is submitted and returned is in JSON format.

The Print Portal REST API makes it possible for you to automate the following tasks:

- · Perform authentication
- · List and enumerate root folders
- · List and enumerate folders and files per root folder
- List and enumerate printers
- · Print documents

Print Portal contains a REST API specification system called Swagger. Swagger can be considered a REST API help system that provides explanations for each function and an execution environment for testing requests. You can access Swagger by adding "swagger" after "BarTender" in the BarTender URL, as follows:

http://localhost/BarTender/swagger/

To help you get started with automating Print Portal, an automation tutorial is included in the Print Portal help system.

Appendix A: How to Use Print Portal (FAQ)

Frequently asked questions about how to set up and use Print Portal for Internet printing include the following.

What is Internet printing?

Internet printing is a process in which users can select a document that is hosted on a web server or service and then print it on the printer that is connected to their local computer or other device. In BarTender 2021 and later versions, the server that hosts Print Portal can be manually configured to provide an HTTPS connection that supports Internet security.

How do I install Print Portal?

You can install Print Portal at the same time that you install BarTender, or you can install it on an existing BarTender installation.

To install Print Portal when you install BarTender, follow these steps:

- 1. Double-click the BarTender installation package. The BarTender Setup wizard starts.
- 2. On the welcome page of the BarTender Setup wizard, read and accept the license agreement, click to select the **Specify advanced installation options** check box, and then click **Next**.
- 3. On the **Advanced Installation Options** page, click to select **BarTender with Print Portal**, specify a folder to install to, and then click **Next**.
- 4. Complete the remaining pages in the wizard.

To install Print Portal on an existing BarTender installation, follow these steps:

- 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.

How do I navigate to and use Print Portal?

After you install Print Portal, you can access it on any client by opening a browser window and then entering the following URL:

http://[ServerName]/bartender

Alternatively, you can click the **Start** icon in the bottom left corner of the Windows user interface, click the BarTender icon in the apps list, and then click the Print Portal icon to start Print Portal in your browser.

How do I print to an Internet client printer?

First, install the BarTender Client Print service on the client device, and then add the printers that are connected to the client device to the service. Then, use Print Portal to locate the document that

you want. To print the document, click it. Alternatively, click , and then click **Print**. On the **Print** page, select the printer that you want and configure other options, such as the number of copies that you want to print.

On the server side, after the Client Print service is installed on the client device and the printers that are connected to that device are added to the service, those printers that are shared on the client are also available for printing from the server.

Do I need to install a printer driver on the server?

No. Print Portal supports "driverless printing." This means that as long as the printer is connected to the client device and is in the list of available printers on that device, Print Portal can stream an image of the selected document to that printer.

How do I set up and configure the BarTender Client Print service?

Print Portal uses the BarTender Client Print service to connect the client to the web server host and expose the available printers on the network. When you click a document in the document selection pane on the **Home** page in Print Portal, the **Print** page opens and displays the status of the Client Print service. The first time that you do this, a banner appears that notifies you that the service is not yet installed. Click **Install** to download and install the service.

The BarTender Client Print service automatically connects the web server to the client by using the Print Router URL that is displayed on the **Client Printing** property page of the **Administrative Setup** page.

How can I search BarTender document content?

Print Portal provides a browsing method and a search method for locating the BarTender documents that you want to print. You might find it easier to locate your documents by using one method instead of the other, or you might use a combination of the two methods.

For example, if you have only one or two folders or a small number of documents, you might find it quicker to browse to the appropriate folder in the folder navigator and then select the document in the document browser.

If you have many folders and/or documents, it might be quicker to use the search method, assuming that you know the name of the document that you want to print, the name of the folder that contains the document, or a tag that the document is associated with. The search function does not work for content that is contained in a document.

How do I enable Internet printing?

On the server, click to select the **Enable client printing** check box on the **Client Printing** property page of the **Administrative Setup** page, and then enter the web server name and Print Router URL. The Print Router URL is used by the Client Print service to connect the client to the web server.

On the client, make sure that you are connected to the Internet, that you have a valid Print Router URL, and that the BarTender Client Print service is installed.

How do I configure Print Portal to support Internet client printing over the Internet (such as a wide area network [WAN])?

Every organization approaches the question of how to secure its public-facing web assets in its own way. However, a common need is to make sure that the communication channel for Internet printing is as secure as is economically possible. For this reason, HTTPS is typically used.

It is the responsibility of the organization that deploys Print Portal to obtain and install the underlying HTTPS certificate, which requires Microsoft Internet Information Services (IIS) to be installed as well. For more information, visit the following Microsoft website:

https://docs.microsoft.com/en-us/configmgr/core/plan-design/security/enable-tls-1-2

How do I design a BarTender label template that uses a data entry form to print to Internet client printers?

Creating a BarTender label template that uses a data entry form to print to Internet client printers is no different from creating any BarTender label template that uses a data entry form to print.

Print Portal automatically displays any data entry forms that are included in the BarTender document when you run a print job. Data entry forms are also displayed when you preview a document before printing it.

What is driverless printing?

Consider a scenario in which a printer is connected to the client device but the Print Portal server does not have a driver installed for that printer. In this case, driverless printing occurs as the server streams a printable file to the client printer without using the driver.

I have my own web application, but I want to interface programmatically with a Print Portal API. How do I do this?

The Print Portal API is released in BarTender 2021.

How can I configure Print Portal to automatically sign on by using Windows credentials?

First, make sure that the Windows Authentication Internet Information Services (IIS) feature is enabled in Windows. Then, in IIS, turn off Anonymous Authentication and enable Windows Authentication for the Print Portal website.

For security reasons, the Windows Authentication feature in IIS is turned off by default. To enable this feature, follow these steps in Windows:

- 1. In Control Panel, click **Programs**, and then click **Turn Windows features on or off** to open the **Windows Features** dialog.
- In the Windows Features dialog, expand Internet Information Services, expand World Wide Web Services, expand Security, and then click to select the Windows Authentication check box.
- 3. Click OK.

After you enable Windows Authentication, open the IIS Management Console, locate the Print Portal website, and then double-click to display the authentication settings. Set **Anonymous Authentication** to **Disabled**, and set **Windows Authentication** to **Enabled**.



If you are using Mozilla Firefox as your browser, you need to make a configuration change to automatically pass Windows credentials. For more information, visit the following website:

https://docs.secureauth.com/display/KBA/Enable+Integrated+Windows+Authentication+%28IWA%29+in+Mozilla+Firefox

Print Portal also supports Active Directory Federation Services (AD FS) integration as a single sign-on (SSO) solution. To configure this, use the following procedures:

In the AD FS Management snap-in for the Microsoft Management Console, add a new relying party trust. To do this, use the Add Relying Party Trust wizard to configure the following settings:

- 1. Click to select the **Enter data about the relying party manually** option.
- 2. Make sure that token encryption is not specified.
- 3. Click to select the **Enable support for the WS-Federation Passive protocol** check box, and then enter the root URL of Print Portal as the relying party protocol URL
- 4. Click to select the **Open the Edit Claim Rules dialog for this relying party trust when the wizard closes** check box, close the wizard, and then add a claim rule to transfrm the SAM-Account-Name LDAP attribute to the Name ID claim.

In Print Portal, follow these steps:

- 1. Stop the application pool.
- 2. Make sure that the website is configured to use an HTTPS binding. An HTTP binding will not work.
- 3. Edit the application's config.xml file.

- 4. In the Authentication node, make sure that **Enabled** is set to "true", and then change **Mode** to "ADFS".
- 5. Provide the metadata address that corresponds to the ADFS server.
- 6. Enter the root Print Portal URL in the **RelyingPartyURL** field. This URL must exactly match the URL that you configured in the AD FS Add Relying Party Trust wizard.
- 7. Start the application pool.

For more information, visit the following Microsoft website:

 $\frac{\text{https://docs.microsoft.com/en-us/aspnet/core/security/authentication/ws-federation?view=aspnetcore-2.2}$

Appendix B: How to Troubleshoot Print Portal (FAQ)

Frequently asked questions about how to troubleshoot Print Portal include the following.

I sent a print job to my client printer but no items were printed.

Try restarting your computer or printing to a different printer.

I try to print a document but my client printer is not displayed in the printers list.

On the **Administrative Setup** page, make sure that the printers that you want to share are selected.

I try to print a Print Portal document by using my iPad, but I do not see my Internet printer.

This is currently an unsupported scenario. Print Portal does not support iOS devices.

• I darkened my printer's thermal output option, but the printed label was unchanged.

If changing the darkness settings on the printer does not change the output, refer to the printer manufacturer's documentation.

It takes a very long time for my label to be printed after I click Print.

Try restarting the browser and reloading Print Portal.

What IP ports are being used by Print Portal and the BarTender web print client?

Port 5952 is used by the client service to communicate between localhost and the client service. Typically, port 80 is used for HTTP and port 443 for HTTPS.

 Where can I look for detailed log files for both Print Portal and the BarTender web print client?

The log folders for these applications contain the log files.

My BarTender web print client configuration is asking for a Print Router URL. What is this
and where can I find it?

The Print Router URL is what is used by the BarTender Client Print service to connect the web server with the client. It is located on the **Client Print Settings** property page of the **Administrative Setup** page. This URL is configured by the administrators of the website that is hosting Print Portal.

 My company requires all web applications to be HTTPS-compliant. How do I configure Print Portal to work with HTTPS?

Obtain and install an HTTPS certificate, and then enable Transport Layer Security (TLS) 1.2 on the site servers and remote site systems. For more information about how to do this, visit the following Microsoft website:

https://docs.microsoft.com/en-us/configmgr/core/plan-design/security/enable-tls-1-2-server



Related Documentation

Technical Documents

- Administration Console
- Print Station
- Librarian

To view and download technical documents, visit:

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

Manuals

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

BarTender Help System

- Print Portal
- Librarian
- Administration Console

Other Resources

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

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