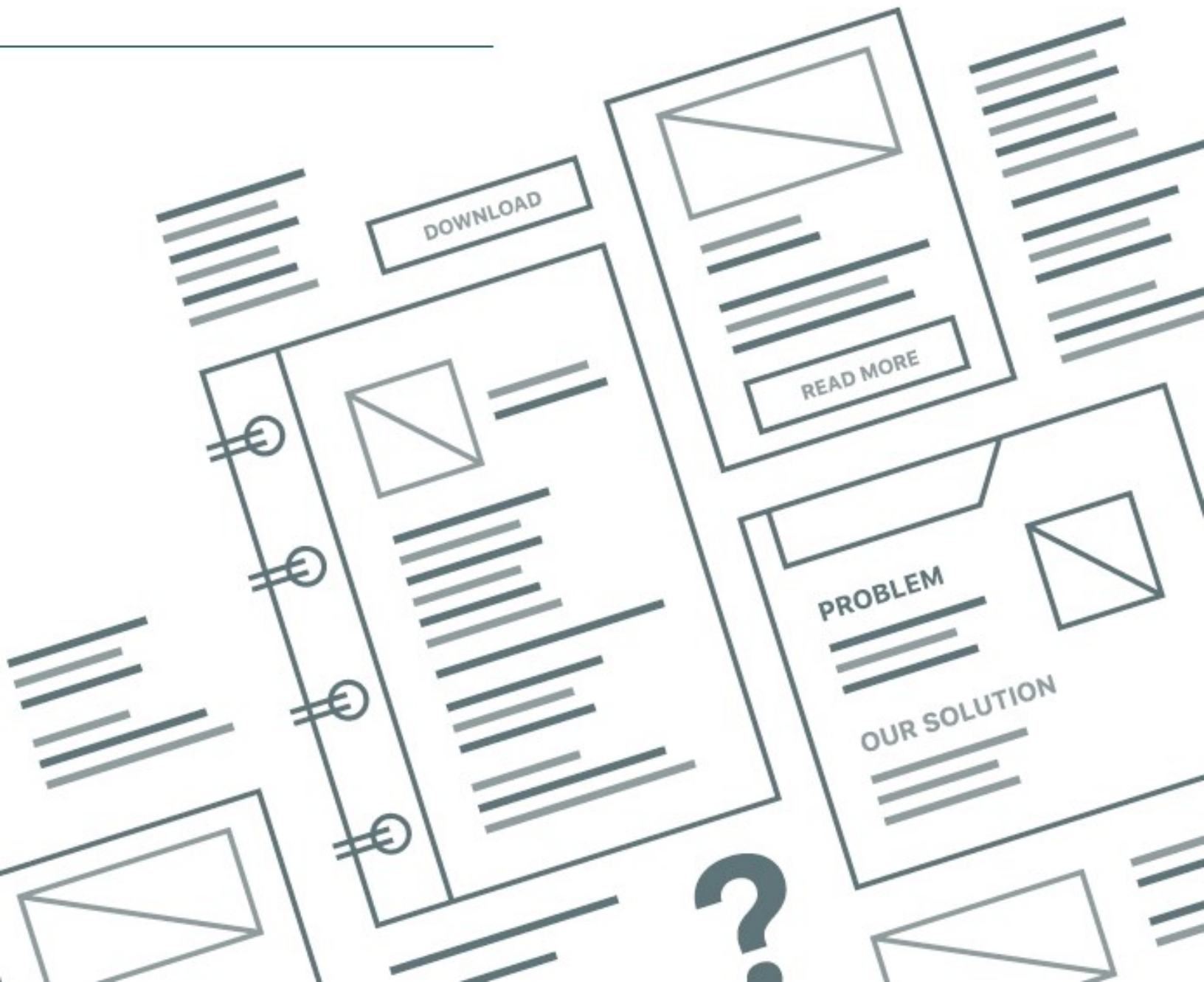


# Transitioning from Commander to Integration Builder

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SUPPORTS: BARTENDER<sup>®</sup> 2016 AND LATER VERSIONS

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# Contents

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- Overview** ..... 3
- About Commander** ..... 4
  - How Commander Worked ..... 4
  - Limitations of Commander ..... 5
- About Integration Builder** ..... 6
  - How Integration Builder Works ..... 6
  - Transitioning from Commander ..... 6
- Benefits of Integration Builder** ..... 8
  - Intuitive User Interface ..... 8
  - New Integration Methods ..... 8
  - New Actions ..... 8
  - New Variables ..... 8
  - Deployment Management ..... 8
  - Integration Testing ..... 9
  - Flexible XML Format ..... 9
- Appendix A: Terminology Changes** ..... 10
- Appendix B: Commander Procedures Compared to Integration Builder Procedures** .... 11
- Related Documentation** ..... 14

## Overview

You can integrate BarTender with external software applications or data sources and then use these applications and data sources to automate processes in BarTender. The most common automated process is printing; however, you can automate many other processes by using integrations.

In versions of BarTender that are earlier than BarTender 2016, the Commander application was used to integrate BarTender with other software applications and data sources. The individual orders that instructed BarTender to work with other software were called *tasks*, and they were created, listed and managed in the main Commander window.

BarTender 2016 introduced Integration Builder to replace the Commander application. Integration Builder replaces tasks with *integrations*, and provides additional integration methods and a comprehensive user interface to create, test, and deploy them. Additional support is provided by Administration Console, where you can deploy existing integrations and view and manage the integrations that are deployed.

Integration Builder is part of the BarTender native integration platform that addresses your integration needs. For more information, refer to the *Integrating with BarTender Integration Builder* technical document:

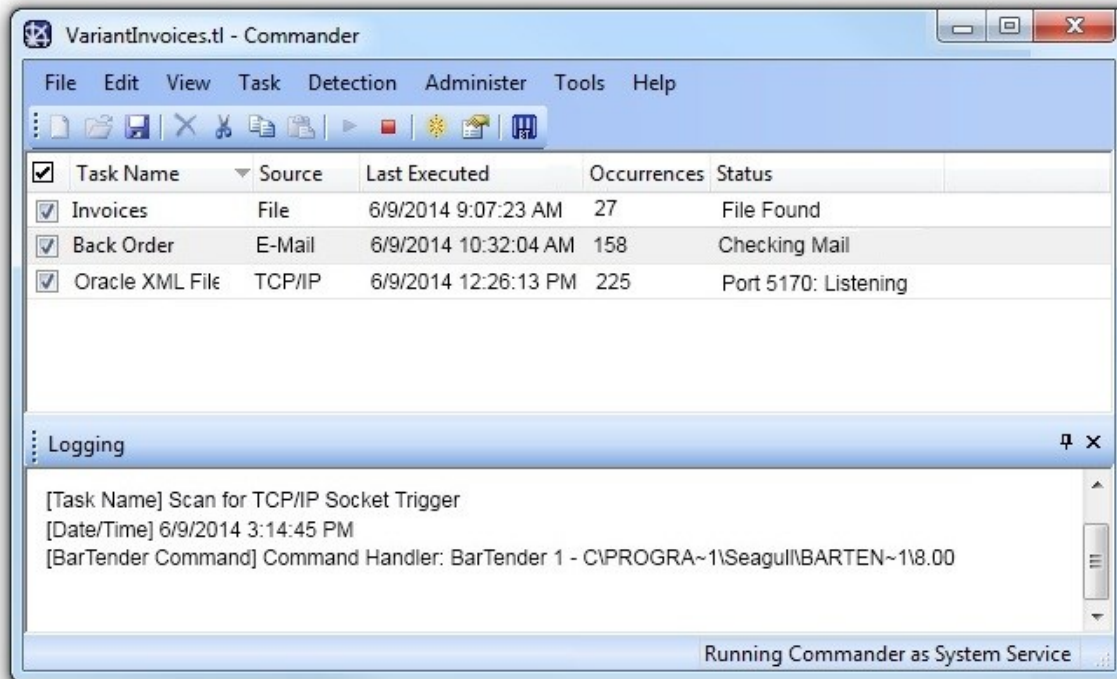
<https://www.seagullscientific.com/resources/white-papers/>

Integration Builder offers several improvements over Commander, as follows:

- More intuitive and flexible user interface
- More integration methods to choose from
- More actions to choose from
- Better control over integration deployment

## About Commander

Commander was a stand-alone software application that was installed with the Automation and Enterprise Automation editions of BarTender prior to BarTender 2016. Commander users could perform automatic printing and other actions in situations where it was not possible or cost-effective to use command-line commands or ActiveX Automation.



## How Commander Worked

When a system prints a document, it performs a triggering action, such as placing a file in a specified location on the network, sending an email message, or sending data through a serial port or a TCP/IP socket connection. Commander detected these triggers and then instructed BarTender to merge the data into templates and automatically run a BarTender print job.

In Windows environments, Commander could run as an application or could be configured to operate as a Windows service that ran whenever your computer was on.

To use Commander, you created a *task list* that instructed BarTender to work with other software. Tasks were created, listed and managed in the main Commander window.

A task consisted of a *trigger* and one or more *commands*, as follows:

- A *trigger* was a file, email or data transmission that was detected by BarTender to start the task.
- A *command* was the action that BarTender took when it detected the trigger.

When you created tasks, you could use Commander variables, which were text tags that were replaced by data when the task ran. You could use variables to replace items in the trigger file, such as the document path and file name, the text file name, or the IDoc name.

You could create many tasks and then save them in a file called a *task list*. Then, you would run the task list, which caused Commander to monitor a specified directory for a trigger and then run the tasks that you created.

### ***Limitations of Commander***

Commander was a powerful middleware application that integrated your custom systems with BarTender, but it had many limitations, such as the following:

- It had high resource usage.
- It was optimized for use on local systems and networks rather than the cloud.
- It had a complex user interface that combined design, management and monitoring features into a single application.
- It lacked a mechanism for testing integrations before they were deployed into production.

## About Integration Builder

BarTender 2016 introduced a native integration platform consisting of two user applications (Integration Builder and Administration Console) that operate together with two Windows-based services (BarTender Integration Service and BarTender Print Scheduler Service) to ensure that your printing operation runs smoothly at all times.

Integration Builder provides an improved approach to integration by giving you tools to create highly configurable integrations that you can use to connect the printing capabilities of BarTender with almost any enterprise business operation. You can build complex integrations from scratch by using its simplified and intuitive interface.

Administration Console makes it easy to update, deploy and monitor integrations. Behind the scenes, the BarTender Integration Service and BarTender Print Scheduler Service run the integrations.

### How Integration Builder Works

Like Commander, Integration Builder works by detecting specified trigger events and then running the specified actions. And like Commander, this process can be as simple as detecting the arrival of a file in a monitored directory and then instructing BarTender to print a document. Unlike Commander, Integration Builder is not a stand-alone application.

Integration Builder allows for greater flexibility than Commander when you create your integrations. Many more integration methods are available, which include communication with clients via TCP/IP, UDP or HTTP and direct support for SAP, Oracle or IBM WebSphere connectivity.

To use Integration Builder, you create an *integration file* that contains one or more *integrations* that instruct BarTender to work with other software. You create, test, and update integrations in Integration Builder and manage them in Administration Console.

An integration consists of an *integration method* and one or more *actions*.

- An *integration method*, like a trigger in Commander, specifies a file, email message, data transmission or other event that starts the specified actions when it is detected.
- An *action* specifies what you want to happen when the integration method is detected. The most common action is to print a BarTender document, but actions can also transform data; delete, copy and move files; send and receive data; send email messages, and so on. An action in Integration Builder is essentially the same thing as a command in Commander, but by using Integration Builder, you have a wider variety of actions to choose from.

### Transitioning from Commander

Integration Builder includes a feature that converts legacy Commander task lists into integration files. To use this feature, follow these steps:

1. Open BarTender Integration Builder.
2. On the **Start** page, click **Import Commander Task List**.
3. Browse to and then select the Commander task list file (\*.tl) that you want to import.
4. Click **Open** to open the file in Integration Builder.

5. On the Integration Builder **Administration** tab, click **Save As**.

6. Name the file, and then click **Save** to save it as a BarTender integration file (\*.btin).

The new integration file is ready to be deployed.

## Benefits of Integration Builder

The BarTender native integration solution is a set of utilities and services that completely replaces the Commander companion application. Compared to Commander, it includes expanded capabilities for communicating with your company's software applications and increased printing efficiency. This section describes the benefits that Integration Builder offers.

### ***Intuitive User Interface***

The Integration Builder user interface exposes more of the underlying attributes for integrations and actions, which makes them easily accessible on dynamic property pages.

### ***New Integration Methods***

In Commander, four triggers were available: File, Email, TCP/IP and Serial Port. In Integration Builder, many more integration methods are added, including the following:

- Web Service Request, which runs actions when a web service is posted to a URL
- Message Queue, which runs actions when a message is posted to Microsoft Message Queuing (MSMQ)
- Time Schedule, which runs actions at a scheduled time and recurrence interval
- Database, which runs actions when data in a database is inserted or modified

Also, Integration Builder adds native support for several file systems, including Librarian, FTP or WebDAV (HTTP) services, and Dropbox.

### ***New Actions***

Integration Builder greatly increases the number of actions that are available. Among other things, you can print a document, transform data, perform file actions, send outgoing data, run shell and PowerShell commands, and perform database manipulation.

For more information, refer to the [Integration Builder](#) section in the BarTender help system or the *Integrating with Integration Builder* technical document:

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

### ***New Variables***

Variables are predefined text tags that are replaced with specified data when an action runs. Integration Builder supports several predefined global and integration variables and also makes it possible for you to create your own.

### ***Deployment Management***

You can deploy your integrations by using either Integration Builder or Administration Console, and you can specify that the integration is deployed immediately or schedule a date and time when you want it to be deployed. You can also view past deployments, edit pending deployments, and stop and start deployed integrations by using Administration Console.



## ***Integration Testing***

In Commander, there was no way to test a task without first putting it into production. In Integration Builder, you can test each integration and each of the actions in the integration before you deploy it.

## ***Flexible XML Format***

An integration file is an XML schema that is native to BarTender. By using this flexible file format, you can create and modify integrations programmatically or manually without having to use the Integration Builder interface.







## Appendix A: Terminology Changes



Although Commander and Integration Builder do many of the same things, some terminology was changed in Integration Builder, and some new terminology was added, as follows.

Commander	Integration Builder	Definition
Command	Action	The action that takes place when an integration event is detected.
Commander Script	Print Command script	A set of written instructions that the Integration Service can read and run. You can configure applications that are not associated with BarTender to start an integration event that includes Print Command scripts. When you do this, the application sends the Integration Service instructions that vary but that use the same integration method.
Commander variables	Variables	Text tags that are replaced with data when the integration is run.
(No equivalent)	Deploy	The command to deploy the integration. When you deploy an integration, it becomes available to the Integration Service. Note that "Deploy" and "Start" are not the same. A deployed integration is not necessarily running; it may be stopped, waiting for events, or in an error state.
Start Detection	Start	The command to run the integration file.
Task	Integration	An individual integration that detects an integration event and performs one or more actions.
Task List	Integration File	A file that contains one or more integrations.
TCP/IP Socket Trigger	Network Socket Integration Method	An integration that runs actions when data is received over a TCP or UDP socket connection.

## Appendix B: Commander Procedures Compared to Integration Builder Procedures

The following table compares the procedures that were used to perform tasks in Commander to the procedures for those tasks in Integration Builder.

Commander	Integration Builder
<p><b>To create a new task</b></p> <p>On the <b>Task</b> menu, click <b>Add</b> to open the <b>Task Options</b> dialog.</p>	<p><b>To create a new integration</b></p> <p>For the first integration in an integration file, click <b>Create New Integration</b> in the Start view, and then select the integration method that you want.</p> <p>To add more integrations to the integration file, click <b>Integration</b> on the <b>Create</b> tab, and then select the integration method that you want.</p>
<p><b>To save a task list</b></p> <p>On the <b>File</b> menu, click , and then click <b>Save</b> or <b>Save As</b>.</p>	<p><b>To save an integration file</b></p> <p>Click , or click <b>Save</b> or <b>Save As</b> on the <b>Administration</b>  tab.</p>
<p><b>To select a trigger type</b></p> <p>In the <b>Task Options</b> dialog, select an option from the <b>Trigger</b> list.</p>	<p><b>To select an integration method</b></p> <p>On the <b>Create</b> tab, click <b>Integration</b>, and then select the integration method that you want.</p>
<p><b>To add a new command</b></p> <p>On the <b>Command(s)</b> tab of the <b>Task Options</b> dialog, click the <b>Command Type</b> field in the <b>Command Type</b> column, and then select the command type that you want.</p>	<p><b>To add a new action</b></p> <p>In the <b>Integration</b> pane, click <b>Actions</b>. The default action is <b>Print Document</b>.</p> <p>To add another action, click  to open the <b>New Action</b> dialog. Select the action that you want, and then click <b>OK</b>.</p> <p>To remove an action, select it, and then click .</p>
<p><b>To add a new variable</b></p> <p>On the <b>File</b> menu, click <b>Task List Options</b> to open the <b>Task List Options</b> dialog.</p> <p>Click the <b>Variables</b> tab, and then enter variable names and values for the current task list.</p>	<p><b>To add a new variable</b></p> <p>In the <b>Integration</b> pane, click <b>Variables</b> to view predefined integration variables that can be referenced by any action in the integration.</p> <p>In the <b>Custom Integration Variables</b> area, click  <b>Add Variable</b> to create a custom variable for the current integration.</p>

Commander	Integration Builder
<p><b>To select a document to print</b></p> <p>On the <b>Commands</b> tab of the <b>Task Options</b> dialog, click  to open the <b>BarTender Command Actions</b> dialog.</p> <p>On the <b>Documents</b> tab of the <b>BarTender Command Actions</b> dialog, select <b>Files</b> under <b>Documents to Use</b>, and then enter the file path or browse for the file that you want.</p>	<p><b>To select a document to print</b></p> <p>In the <b>Integration</b> pane, click the <b>Print Document</b> action. On the <b>Document</b> tab, enter the file path in the <b>Document</b> field or click <b>Browse</b> to browse for the file that you want.</p>
<p><b>To select a printer</b></p> <p>On the <b>Commands</b> tab of the <b>Task Options</b> dialog, click  to open the <b>BarTender Command Actions</b> dialog.</p> <p>On the <b>Documents</b> tab of the <b>BarTender Command Actions</b> dialog, click <b>Specified in Document</b> or <b>System Printer</b> under <b>Printer to Use</b>.</p> <p>If you clicked <b>System Printer</b>, select the printer that you want from the list.</p>	<p><b>To select a printer</b></p> <p>In the <b>Integration</b> pane, click the <b>Print Document</b> action. On the <b>Print Option Overrides</b> tab, click to select the <b>Printer</b> check box, and then select the printer that you want in the list.</p>
<p><b>To configure an email trigger</b></p> <p>When you have <b>E-Mail</b> selected as the <b>Trigger</b> type, click <b>Setup</b> on the <b>Trigger</b> tab of the <b>Task Options</b> dialog to open the <b>Internet Mail Setup</b> dialog.</p>	<p><b>To configure an email integration</b></p> <p>In the <b>Integrations</b> pane, click the email integration that you want. In the <b>Email Integration</b> pane, click <b>Mail Server</b> to configure the email server options, click <b>Email Detection</b> to configure the inbox settings, and/or click <b>Input Data</b> to configure the input data format.</p>
<p><b>To configure a serial port trigger</b></p> <p>When you have <b>Serial Port</b> selected as the <b>Trigger</b> type, click <b>Configure Port</b> on the <b>Trigger</b> tab of the <b>Task Options</b> dialog to open the <b>Configure Port</b> dialog.</p>	<p><b>To configure a serial port integration</b></p> <p>In the <b>Integrations</b> pane, click the serial port integration that you want, and then click <b>Port</b> in the <b>Serial Port Integration</b> pane to configure the serial port options.</p>

Commander	Integration Builder
<p><b>To configure a TCP/IP socket trigger</b></p> <p>When you have <b>TCP/IP</b> selected as the <b>Trigger</b> type, click <b>Advanced Connection Options</b> on the <b>Trigger</b> tab of the <b>Task Options</b> dialog to configure TCP/IP setup.</p>	<p><b>To configure a network socket integration</b></p> <p>In the <b>Integrations</b> pane, click the network socket integration that you want, and then click <b>Socket</b> in the <b>Network Socket Integration</b> pane to configure the network socket options.</p>
<p><b>To enable a task</b></p> <p>In the main Commander window, click to select the task name check box.</p>	<p><b>To enable an integration</b></p> <p>In the <b>Integration</b> pane, click <b>Integration</b>. In the <b>Properties</b> pane, select an option in the <b>Start Integration</b> list. To enable the integration to run, select <b>Automatic</b> or <b>Manual</b>. If you select <b>Disabled</b>, the integration does not run until you change the setting to <b>Automatic</b> or <b>Manual</b>.</p>
<p><b>To run a task or task list</b></p> <p>On the <b>Detection</b> menu, click <b>Start Detection</b>. Commander starts detecting for all enabled tasks.</p>	<p><b>To run an integration file</b></p> <p>Deploy the integration file by using either Integration Builder or Administration Console. Then, on the <b>Integrations</b> page in Administration Console, click <b>Start</b> next to the integration that you want.</p>

## Related Documentation

### Technical Documents

- *BarTender Integration Methods*
- *Integrating with BarTender Integration Builder*
- *Administration Console*

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

- [Integration Builder](#)
- [Administration Console: Integrations](#)

### Other Resources

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

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