



Transitioning from Commander to Integration Builder

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Overview

The term *Integration*, as used in BarTender, simply refers to the process of integrating BarTender with other software or data sources, which in turn can be used to automate processes in BarTender. The most commonly automated process is printing; however, there are a number of other processes you can automate with integrations.

In the past, BarTender used the Commander application to integrate with other software and data sources. The individual orders that caused BarTender to work with other software were called *tasks*, and they were created, listed and managed in the main Commander window.

In BarTender 2016, you can use the new Integration Builder tool to create tasks, called simply *integrations*, and easily manage them. Integration Builder is part of BarTender's native answer to all of your integration needs. For more information, refer to the Integration Builder white paper.

Integration Builder improvements over Commander include:

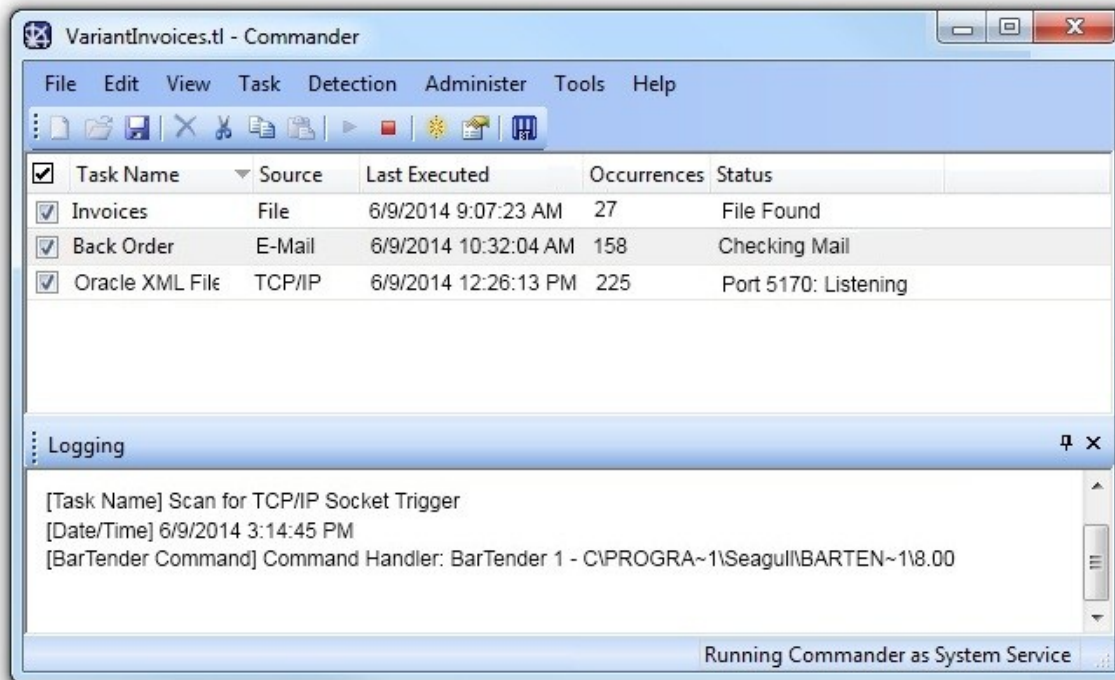
- More intuitive and flexible user interface
- More integration methods to choose from
- More actions to choose from
- Better control over integration deployment

Integrations can be easily viewed, modified, deployed and maintained from Administration Console.

About Commander

Overview

Commander was a freestanding software utility installed with the Automation and Enterprise Automation editions of BarTender. Commander enabled users to perform automatic printing and other actions in situations where using command line or ActiveX automation was not possible or not cost effective.



How Commander Worked

When a system needs to print, it performs a triggering action, such as placing a file in a location of your choosing on the network, transmitting an e-mail, sending data via RS-232 (a serial port), or sending information through a TCP/IP socket connection. Commander detected the arrival or occurrence of these "triggers" and then "woke up" BarTender so it could merge your data into templates and automatically execute a BarTender print job.

In all 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 would create a *task list*, that caused 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*.

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

While creating tasks, you could use Commander Variables, text tags that were replaced at task execution time. You could replace items in the trigger file such as the document path and file name, the text file name, and the IDoc name.

You could create a number of tasks, and then save them in a file called a *task list*. Next you would run the task list, causing it to monitor a specified directory for a trigger, and then run the tasks you created.

Limitations of Commander

While Commander was a powerful application that served as a middleware application to integrate your custom systems with BarTender, it had many limitations:

- High resource usage
- Optimized for use on local systems and networks, rather than the cloud
- Complex user interface that combined design, management and monitoring features into a single application
- Lack of testing mechanism before integrations were deployed into production

About Integration Builder

Overview

BarTender 2016 introduces a new approach to integration by letting you create highly configurable integrations that let you connect BarTender's printing capabilities with virtually any enterprise business operation. Integration Builder lets you build complex integrations from scratch, with a easy-to-use and intuitive interface. Administration Console makes it easy to update, deploy and monitor integrations. Behind the scenes, the BarTender Integration service and Print Scheduler service execute integrations and ensure that your printing operation is running seamlessly at all times.

How Integration Builder Works

Like Commander, Integration Builder allows you to define trigger events and the actions to execute when those events are detected. And just like Commander, this could be as simple as detecting the arrival of a file in a monitored directory and "waking up" BarTender to print a document. Unlike Commander, Integration Builder is not a freestanding application. It is part of a full "integration platform", including two native Windows services, which run behind the scenes, and Administration Console, which allows you to manage integration deployments.

Integration Builder further allows for greater flexibility in creating your integrations with many more integration methods available, including communicating 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* containing one or more *integrations* that causes BarTender to work with other software. Integrations are created and updated in Integration Builder, and managed in Administration Console.

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

- An *integration method*, like a trigger in Commander, is a file, email, data transmission or other event that, when detected, initiates the execution of a defined action.
- An *action* specifies what you want to happen once the integration method is detected. While the most common action may be to print a BarTender document, actions can also transform data, delete, copy and move files, send and receive data, and send emails. An action in Integration Builder is essentially the same thing as a command used in Commander, but with Integration Builder, you have a wider range of action choices.

Transitioning from Commander

Integration Builder includes a utility that converts legacy Commander task lists into integration files. To do so:

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

5. From Integration Builder's **Administration** tab, select **Save As**.
6. Name the integration file and click **Save** to save it as a BarTender integration file (*.btin).

Your new integration file can be deployed at this time.

Benefits of Integration Builder

BarTender's native integration solution is a new set of utilities and services that completely replaces the Commander companion application. It has expanded capabilities for communicating with your company's software applications and increased printing efficiency. This section details the benefits that Integration Builder has over the legacy Commander.

Intuitive User Interface

Integration Builder's user interface exposes more of the underlying attributes for integrations and actions making them easily accessible on dynamic property pages.

New Integration Methods

In Commander, there were four available triggers: File, E-mail, TCP/IP and Serial Port. Integration Builder greatly expands upon the available methods, adding:

- 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 a message queue (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

In addition, Integration Builder adds native support for a number of file systems, including Librarian, FTP or WebDAV (HTTP) services, and Dropbox.

New Actions

Integration Builder greatly expands upon the number of actions available to you. Now, it is easy to print a document, transform data, perform file actions, send outgoing data, execute Shell and PowerShell commands, and perform database manipulation. For a complete list of actions, refer to the **Integrating with Integration Builder** white paper or the **Integration Builder** help system.

New Variables

Variables are predefined text tags that are replaced when an action is executed. Integration Builder supports a number of predefined global and integration variables, and also makes it easy for you to create your own.

Deployment Management

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

Integration Builder also lets you create deployment plans, where you can save all of your integration's deployment settings to a file. This lets you easily schedule deployments for any time of the day.

Integration Testing

With Commander, there was no way to test a task without first putting it into production. Now, you can test each integration you create before you deploy it directly from Integration Builder.

Flexible XML Format

An integration file is simply an XML schema native to BarTender. By using this flexible file format, integrations can be created and modified programmatically or manually without the use of Integration Builder.








Appendix A: Terminology Changes


Although Commander and Integration Builder do many of the same things, some terminology has changed in Integration Builder, and some new terminology has been added.

Commander	Integration Builder	Definition
Command	Action	The action that takes place when an integration event is detected.
Commander Script	Print Command Script	A Print Command Script is a set of written instructions that the Integration Service can read and execute. Applications not associated with BarTender can be set up to initiate an integration event that includes Print Command Scripts. This allows the application to send the Integration Service instructions that vary, but that use the same integration method.
Commander variables	Variables	Text tags that are replaced when the integration is executed.
(No equivalent)	Deploy	Deploying an integration makes it 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 or disabled.
(No equivalent)	Deployment Plan	A Deployment Plan allows you to save all of your integration's deployment settings and schedule, and edit them at any time.
Start Detection	Start	The command to activate 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 containing 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: How To - Commander vs Integration Builder

This is a point-by-point guide on how to accomplish the tasks you used to perform in Commander in the new Integration Builder.

Commander	Integration Builder
<p>To create a new task</p> <p>From the Task menu, select Add to open the Task Options dialog.</p>	<p>To create a new integration</p> <p>For the first integration in an integration file, click Create New Integration from the Start view and select your integration method.</p> <p>To add additional integrations, click the Integrations button on the Home tab and select your integration method.</p>
<p>To save a task list</p> <p>Click  or from the File menu, select Save or Save As.</p>	<p>To save an integration file</p> <p>Click , or from the Administration tab , select Save or Save As.</p>
<p>To change a trigger type</p> <p>From the Task Options dialog, select an option from the Trigger dropdown list.</p>	<p>To select an integration method</p> <p>Delete the existing integration. Add a new one by clicking the Integrations button on the Home tab and select your integration method.</p>
<p>To add a new command</p> <p>From the Command(s) tab of the Task Options dialog, in the Command Type column, click the Command Type field to open a dropdown list and select the desired command type.</p>	<p>To add a new action</p> <p>In the Integration pane, select the Actions node. The default action is Print Document.</p> <p>To add another action, click  to open the New Action dialog. Select the desired action and click OK.</p> <p>To remove an action, select its name under the Actions node and click .</p>
<p>To add a new variable</p> <p>From the File menu, select Task List Options to open the Task List Options dialog.</p> <p>Click the Variables tab. Here you can enter variable names and values for the current task list.</p>	<p>To add a new variable</p> <p>In the Integration pane, select the Variables node. Here you can view predefined integration variables that may be referenced by any action in the integration.</p> <p>Under Custom Integration Variables, click  Add Variable to create a custom variable for the current integration.</p>
<p>To select a document to print</p> <p>From the Commands tab of the Task Options dialog, click  to open the BarTender Command Actions dialog.</p>	<p>To select a document to print</p> <p>Under the Integration pane, select the Print Document action. In the Properties pane, under Document, enter or browse for the desired file.</p>

<p>On the Documents tab of the BarTender Command Actions dialog, under Documents to Use, select Files and enter or browse for the desired file.</p>	
<p>To set a printer</p> <p>From the Commands tab of the Task Options dialog, click  to open the BarTender Command Actions dialog.</p> <p>On the Documents tab of the BarTender Command Actions dialog, under Printer to Use, select Specified in Document or System Printer.</p> <p>If you selected System Printer, select the desired printer from the dropdown list.</p>	<p>To set a printer</p> <p>Under the Integration pane, select the Print Document action. In the Properties pane, under Print Option Overrides, enable Printer. From the dropdown list, select the printer you wish to use.</p>
<p>To specify options for an email trigger</p> <p>From the Trigger tab of the Task Options dialog, when you have E-Mail selected as the Trigger type, click the Setup button to open the Internet Mail Setup dialog.</p>	<p>To specify options for an e-mail integration</p> <p>Under the Integrations pane, select the Email Integration. In the Properties pane, set your email options.</p>
<p>To configure a serial port trigger</p> <p>From the Trigger tab of the Task Options dialog, when you have Serial Port selected as the Trigger type, click the Configure Port button to open the Configure Port dialog.</p>	<p>To configure a serial port integration</p> <p>Under the Integrations pane, select the Serial Port Integration. In the Properties pane, set your serial port options.</p>
<p>To configure a TCP/IP socket trigger</p> <p>From the Trigger tab of the Task Options dialog, when you have TCP/IP selected as the Trigger type, click the Advanced Connection Options button to configure TCP/IP setup.</p>	<p>To configure a network socket integration</p> <p>Under the Integrations pane, select the Network Socket Integration. In the Properties pane, set your network socket options.</p>
<p>To enable a task</p> <p>From the main Commander window, check (enable) the box to the left of the task name.</p>	<p>To enable an integration</p> <p>In the Integration pane, select Integration. In the Properties pane, set the Start Integration option. Select Automatic or Manual to enable the integration. If you select Disabled, you will have to manually change that setting before you can run the integration.</p>
<p>To run a task or task list</p>	<p>To run an integration file</p>

<p>From the Detection menu, select Start Detection. Commander will start detection for all enabled tasks.</p>	<p>Deploy the integration file. From the Integrations node of Administration Console, click the Start button next to the desired integration.</p>
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Related Documentation

White Papers and Manuals

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

For downloadable versions, visit:

<http://www.seagullscientific.com/support/white-papers>

BarTender Help System

- [Integration Builder](#)
- [Administration Console: Integrations](#)
- [Commander \(version 10.1\)](#)

