The World's Leading Software for
Label, Barcode, RFID & Card Printing

BarTender Web Print Server

Web-based Software for Printing Barcodes, Labels, ID Cards and more.

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S C I E N T I F I C

Contents

Introduction to BarTender Web Print Server (WPS)

BarTender Web Print Server (WPS) is an ASP.Net application that provides a browser-based interface for label selection and printing. Users of browsers on regular PCs, non-Windows computers, and even handheld PDAs can easily browse and select label formats and submit them for printing by the BarTender Web Print Server application running on a Windows server.

> For use with Enterprise Automation edition: BarTender Web Print Server is only available for production use as part of the Enterprise Automation edition of BarTender. However, you can also download and use it with the BarTender Trial edition. You can download the latest BarTender, Web Print Server, and documentation from:

http://www.seagullscientific.com
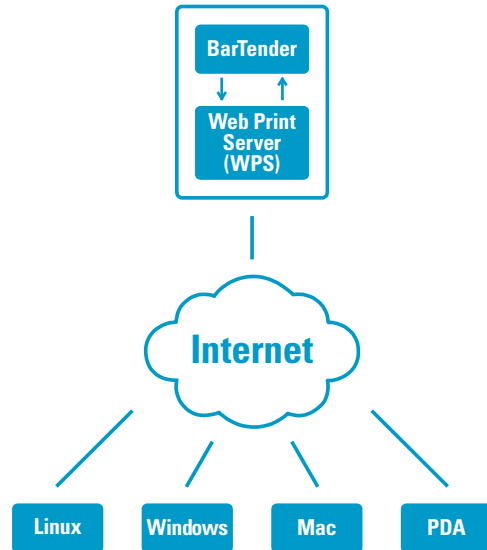
When installing and deploying WPS, it is important to first understand its three supported printing methods and select which ones you will need.

Understanding the Available Printing Methods

BarTender Web Print Server supports three different methods of printing: Standard Window Printing, Internet Printing (which has two variants: Queue-based and Direct-to-port), and PDF Printing. Understanding the requirements and advantages of each method will help you to successfully install and deploy WPS.

Standard Windows Printing
This is the simplest printing method and should be used whenever possible to output to printers on the server or anywhere on the LAN or WAN. With "Standard Windows" printing, the copy of BarTender running on the web server prints using printer drivers installed on the server the same way any standard Windows program does.

Web Server Printer Driver Requirements

Regardless of whether the printer is directly attached to the server or being "shared out" by a client, a driver must be installed on the server for each printer to be used.

Client OS Requirements

Almost any operating system for which a web browser is available can be used.

Client Browser Requirements

Almost any web browser is supported on the client. Support for JavaScript, Java, and ActiveX is *not* required.

Client Printer Driver Requirements

If the printer is connected to the server, then (as described above) the appropriate printer driver needs to be installed on the server, but it is not required on the client. However, if the printer is connected to the client PC, then a printer driver must be installed on the client and shared to the web server.

Advantages

Standard Windows Printing is compatible with almost any browser running on the client (even browsers built into handheld devices) and no client-side code (JavaScript, Java, or ActiveX) is required. This is the simplest and highest performance printing method to set up.

Disadvantages

Standard Windows Printing can only print to printers that are visible to the web server over the LAN or WAN. If you need to print to printers that are not on the LAN/WAN, you will need to use Internet Printing or PDF Printing.

Internet Printing

When the printer is not visible to the web application server, either because it is not attached to the server or not located on the same LAN or WAN, then Standard Windows printing is not an option. In this case, Internet Printing offers a number of solutions.

Comparing the two Internet Printing Methods

If it is acceptable to have a printer driver on the client, Queue-based Internet Printing is recommended. Otherwise, Direct-to-Port Internet Printing is available. Because USB ports are not supported using direct-to-port Internet Printing, Queue-based Internet Printing is required when you need to print to a USB port.

Queue-based Internet Printing

Requires a printer driver be installed on the client. Supports many port types, including USB.

Direct-to-Port Internet Printing

Does *not* require that a printer driver be installed on the client system. However, the printer must be connected to the client system using a serial, parallel, or TCP/IP Network port. (USB ports are *not* supported.)

Both variants of Internet Printing require use of a browser that supports JavaScript and one of the two Client-side Print Modules.

Client-side Print Module Options

There are two Client-side Print Modules: ActiveX and Java.

ActiveX Client-Side Print Module

Requires the use of IE (Internet Explorer) running on Windows, but it provides the best experience for that platform.

Java Client-side Print Module

Works on a wide variety of browsers, including IE, Firefox, Chrome, Safari, and Opera. It also works on a variety of operating systems, including Windows, OS X, and Linux.

The first time a client user views the BarTender Web Print Server's "Print" page, he or she will automatically be prompted to install the Client-side Print Module. You can configure WPS to always use either the ActiveX or Java Client-side Print Module, or you can set WPS to automatically use the best print module depending on the client's browser and operating system.

Web Server Printer Driver Requirements

A driver must be installed on the server for each printer to be used. The output port does not need to be specified, as the driver is only used to print to a file.

Reducing the Required Number of Drivers when using Queue-based Internet Printing and the ActiveX Client-side Print Module

Queue-based Internet Printing with the ActiveX Client-side Print Module normally requires that a printer driver be installed on both the client and server and that the exact same model name be used. However, if you are sure that a particular client printer is very compatible with a driver already installed and available on the server, then you can use the Compatible Models panel on the Print tab of the Administration page to specify that the two printer models are compatible. This feature can save you from having to install an unnecessarily large number of very similar drivers on the server. (See the "*Using WPS*" section below for more details.)

Client OS Requirements

When using the ActiveX Client-side Print Module, Windows is required. When using the Java Client-side Print Module, Windows, Linux, or OS X can be used. (See the System Requirements section below for details.)

Client Browser Requirements

The client's browser must support JavaScript, and either the Java or ActiveX Client-side Print Module. This has been tested on Windows with IE, Firefox, and Chrome. On Linux it has been tested with Firefox. On OS X, it has been tested with Safari, Firefox, and Opera. (See the System Requirements section below for details.)

Client Printer Driver Requirements

When using Queue-based Internet printing, a printer driver must be installed on the client. No driver is needed for Direct-to-port Internet printing. When using Queue-based Internet printing on Linux and OS X, the Common Unix Printing System (CUPS) must be used. See the _Installing a CUPS Driver on the Client_ section for details.

Advantages

Internet Printing allows you to print to a printer that is attached to a client PC that is only connected to the web server over the Internet instead of over a LAN or WAN. In this situation, because the web server has no direct access to the Internet printer, Standard Windows Printing is not possible.

Disadvantages

Because Internet Printing is more complex than Standard Windows Printing, Standard Windows Printing should be used when possible. Internet printing also requires JavaScript support on the client browser and either a Java or ActiveX Client-side Print Module.

PDF Printing

With PDF Printing, the web server first creates an Adobe Portable Document File on the server. The client browser will then automatically display the PDF using Adobe Reader and allow you to optionally print it. This is recommended primarily for office/desktop printers and not for thermal printers.

Server Requirements

Adobe Acrobat distiller must be installed on the web server. If device font usage is desired, then it is recommended that the proper printer driver also be installed on the server. The proper output port does not need to be specified, as the driver is only used to generate the PDF.

Client Requirements

The client must have Adobe Reader installed so that the browser can access it. The appropriate driver for your printer should also be installed on the client.

Advantages
In cases where Standard Window Printing or Internet Printing cannot be used, this is another option that may be useful. However, please see the disadvantages section below.

Disadvantages
Because of barcode quality and print speed issues with PDF printing, Standard Windows Printing or Internet Printing is recommended when possible. Print speed is an issue because the server must generate a PDF file, that document must be downloaded to the client, and the client then needs to launch Adobe Acrobat Reader to open the document. Print quality is an issue because PDFs are often resized when printing. This can have seriously detrimental effects on barcode quality. It is therefore recommended that resizing be disabled in Adobe Reader and that the quality of all barcodes be verified to confirm that they are in spec and meet user requirements.

WPS System Requriements

Web Server Requirements

Operating System
The Web Print Server web application must be hosted by a server running one of these operating systems:

- Windows Server 2003 (SP1 and higher)
- Windows Server 2008
- Windows Server 2008 R2
- Windows XP (SP2 and higher)
- Windows Vista
- Windows 7

Other Software Requirements
The web server must also have the following:

- **Internet Information Server (IIS) (v6.0 or later)**
- ASP.NET v2.0 - BarTender Web Print Server's installer automatically downloads and installs ASP.Net 2.0 if your system requires it. Alternately, you can download and install ASP.Net 2.0 from
  http://www.microsoft.com/en-us/download/details.aspx?displaylang=en&id=22.

- **BarTender (Enterprise Automation Edition)**

- **Seagull License Server -** This is often installed on the web server along with BarTender, but it does not have to be. It can be installed on another PC accessible on the network.
- **Printer Drivers -** Printer drivers for any models that will be used by clients will need to be installed on the server. Exactly how these need to be configured depends on the printing method used and is detailed later in this whitepaper.
- **Adobe Acrobat Distiller (Optional) -** This is needed only if PDF printing will be supported. Whenever possible, other printing methods should be used instead of PDF printing to achieve faster performance and higher quality barcodes.

Client Requirements for Standard Windows Printing

Most any operating system that supports a browser can be used, including handheld devices.

Client Requirements for Internet Printing

The client's browser must support JavaScript, and one of the two client-side print modules.

Printer Drivers not Needed for Direct-to-Port Internet Printing

When using Direct-to-Port Internet Printing, no driver is required. The printer must be attached to the client computer using a serial, parallel, or TCP/IP port.

Printer Drivers Required for Queue-Based Internet Printing

On Windows, the proper Windows Printer driver must be installed. On Linux and OS X, a Common Unix Printing System (CUPS) driver must be installed. See the "*Installing a CUPS Driver on the Client*" section for details.

ActiveX Client-side Print Module

The ActiveX Client-side Print Module runs only on Windows with Internet Explorer (IE).

Operating System

The following Windows operating systems are supported:

- Windows Server 2003 (SP1 and higher)
- Windows Server 2008
- Windows Server 2008 R2
- Windows XP (SP2 and higher)
- Windows Vista
- Windows 7

Browser

Internet Explorer 7 (IE7) or newer is required.

Java Client-side Print Module

The Java Client-side Print Module requires Java v1.6.0.13 or later to be installed on the client.

Operating System

The following operating systems are supported:

- Windows Server 2003 (SP1 and higher)
- Windows Server 2008
- Windows Server 2008 R2
- Windows XP (SP2 and higher)
- Windows Vista
- Windows 7
- Linux
- OS X (Running on Macintosh Computers)

Browser

The supported browsers depend on the operating system.

- Windows
    - Internet Explorer 7 (IE7) or higher
    - Firefox 3.0 or higher
    - Chrome 6 or higher
- Linux
    - Firefox 3.0 or higher
- OS X (Running on Macintosh Computers)
    - Safari 5 or higher
    - Firefox 3.0 or higher

Opera 10.63 or higher

Client Requirements for PDF Printing

The client's browser must support Adobe Acrobat Reader. Please see the *Understanding the Available Printing Methods* section for important concerns regarding PDF Printing.

Installation

Installing Internet Information Services (IIS)
Prior to installing BarTender or WPS on the server, please ensure that you have IIS installed. Installation instructions are below.

Windows Server 2003
1. From the "Add/Remove Programs" window, select "Add/Remove Window Components". This will display the "Windows Components Wizard" dialog.
2. Select "Application Server".
3. Click "Details".
4. Select "ASP .NET".
5. Click OK. Have the Windows CD ready in case Windows asks you to insert your Windows CD.

Windows Server 2008
1. From "Administrative Tools", select "Server Manager".
2. Scroll down to "Roles Summary", and select "Add Roles". This will display the "Add Roles Wizard".
3. On the "Select Server Roles" page, select "Web Server (IIS)". Click Next.
4. On the "Select Role Services" page, expand "Application Development".
5. Select "ASP .NET". This will automatically select ".NET Extensibility", "ISAPI Extensions", and "ISAPI Filters". Click Next.
6. Select "Add Required Role Services".
7. Click Close. Have the Windows CD ready in case Windows asks you to insert your Windows CD.

Windows XP
1. From the "Add/Remove Programs" window, select "Add/Remove Window Components". This will display the "Windows Components Wizard" dialog.
2. Select "Internet Information Services (IIS)".
3. Click Next. Have the Windows CD ready in case Windows asks you to insert your Windows CD.

   NOTE: IIS 5.1, which is installed by default with Windows XP, will not display certain characters without being in the correct system locale. For example, file names containing Japanese characters will not display correctly in WPS installed on an English operating system. To display these labels correctly, you may need to switch system locales using the following instructions:

   a. In the Windows' Control Panel, select "Regional and Language Options". This will display the "Regional and Language Options" dialog.

  b. Select the "Advanced" tab.

  c. For "Language for Non-Unicode Programs," select the appropriate language.

  d. Click OK to close the dialog. Have the Windows CD ready in case Windows asks you to insert your Windows CD. You may need to reboot your computer for Windows to apply the changes.

Windows Vista and Windows 7

1. From the "Programs and Features" window, select "Turn Windows features on or off". This will display the "Windows Features" dialog.

2. Select "Internet Information Services".

3. Expand "Internet Information Services", followed by "World Wide Web Services" and "Application Development Features".

4. Select "ASP .NET". This will automatically select ".NET Extensibility", "ISAPI Extensions", and "ISAPI Filters".

5. Click OK. Have the Windows CD ready in case Windows asks you to insert your Windows CD.

Installing and Configuring BarTender and WPS

Steps to install and configure BarTender Web Print Server on the server:

1. **Install IIS -** See the "*Installing Internet Information Services (IIS)*" section above for detailed steps.

2. **Install ASP.Net 2.0 -** BarTender Web Print Server's installer automatically downloads and installs ASP.Net 2.0 if your system requires it. Alternatively, you can download and install ASP.Net 2.0 from:

      http://www.microsoft.com/downloads. (Search for dotnetfx.exe.)

3. **Install Adobe Acrobat Distiller (for PDF Printing only) -** If you intend to do PDF Printing, then you will need to install Adobe Acrobat Distiller. See the "*Installing Adobe Acrobat Distiller*" section below for detailed steps.

4. **Install Seagull License Server** - In most cases, this will be installed on the web server, but it can be installed on a separate PC.

5. **Install BarTender.**

6. **Install any needed Printer Drivers.**

7. **Install BarTender Web Print Server.**

8. **Configure the permissions for the IIS_WEBPRINT user account -** A IIS_WEBPRINT user account is required to run BarTender and access local and network printers. This account is automatically created by the WPS Installer and assigned Administration account security rights. Having Administration rights for the IIS_WEBPRINT account is not required. Use your own internal processes to set access rights such that access to BarTender, local and network printers, and read access to C:\Inetpub\wwwroot\bt-wps\Resources folder are available.

9. **Configure the Site Administrations options as desired -** BarTender Web Print Server is configurable using the "Site Administration" page. It is used to configure the web application and decide what functionality to expose in the Label Format Selection and Printing pages. It is for use by the system administrator only and is not accessible by print-time users. It can be accessed using the Windows Start menu on the web server or directly using the URL http://localhost/bt-wps/BtAdmin.aspx. Along with many other options, this is where you will control what print methods will be supported.

10. **Design and save the desired Label Formats into the repository -** The home page for BarTender Web Print Server shows previews of all available label formats. The installed sample label formats can be modified or added to. To add label formats to the repository copy your label formats to the c:\Inetpub\wwwroot\bt-wps\Resources folder. When BarTender Web Print Server is first run thumbnail previews will be generated and cached for viewing on the home page. BarTender Web Print Server can be configured to point to any label format repository by using the Site Administration web page. See the *Label Format Design Considerations* section below.

11. **Enable logging -** This is a valuable auditing and troubleshooting tool. BarTender can log to a system database, to a simple text file, or both. For steps on configuring a system database, see the BarTender help system. To enable logging to a text file, follow the steps below.

    a. Run BarTender from the Windows Start menu.
    b. In the Tools menu, select Log Setup.
    c. Select the Log File tab and enable the "Log Messages" checkbox.
    d. Click Setup.
    e. Specify C:\Inetpub\wwwroot\bt-wps\Resources for the Log File Folder.
    f. Press OK.
    g. Close BarTender.
    h. Select and print labels from BarTender Web Print Server.
    i. Log messages can now be viewed in the file C:\Inetpub\wwwroot\wps\Resources\BtMsg.txt

    Note: For detailed instructions on installing BarTender, Commander, Seagull License Server, BarTender Web Print Server, or Printer Drivers, see the Getting Started Manual.

Installing Adobe Acrobat Distiller (for PDF Printing only)

If you intend to perform PDF printing, then you will need to install Adobe's Acrobat Distiller. The Distiller is bundled with Adobe Acrobat. Adobe Acrobat 5.0 or later is recommended for installation. Due to technical issues with Acrobat 9, it is not supported.

Installation instructions for Adobe Acrobat Distiller 5.0-8

1. Install Adobe Distiller from Adobe Acrobat. If you are installing Acrobat 5.0 on Windows XP or higher make sure to install the 5.05 update which is available at

    http://www.adobe.com/products/acrobat/update.html

2. After installation is complete, navigate to the Printers and Faxes folder. For XP use the Start, Settings, and Printers and Faxes menu.
3. Right click on the "Acrobat Distiller" printer,
4. Select Printing Preferences from the menu. This will bring up the Acrobat Distiller Printing Preferences dialog.
5. Select the "Adobe PDF Settings" tab.
6. Uncheck the following options:
    a. Do not send fonts to distiller
    b. Prompt for PDF Filename
7. Click OK to close the dialog.

Installation instructions for Adobe Acrobat Distiller 10

1. Login to the IIS_WEBPRINT user account.
2. Install Adobe Distiller from Adobe Acrobat.
3. After installation is complete, navigate to the Printers and Faxes folder. For XP use the Start, Settings, and Printers and Faxes menu.
4. Right click on the "Adobe PDF" printer,
5. Select Printing Preferences from the menu. This will bring up the Adobe PDF Printing Preferences dialog.
6. Select the "Adobe PDF Settings" tab.
7. In the drop down select box next to "Adobe PDF Output Folder" select "Documents*.pdf."
8. Uncheck "Rely on system fonts only; do not use document fonts. "
9. Click OK to close the dialog.
10. From within BarTender, print to the "Adobe PDF" printer once to accept the EULA.
11. BarTender Web Print Server is now ready to print PDF files.

Installing a CUPS Driver on the Client (for Queue-based Internet Printing on Linux or OS X Only)

When using Queue-based Internet printing, on Linux and OS X, the Common Unix Printing System (CUPS) must be used. To set this up on Linux, refer to your Linux documentation, to set this up on Macintosh computers running OS X, the steps below show how to setup a raw printer using the CUPS interface.

1. Connect the printer you wish to use to the printer port (e.g. USB)

2. As an Administrator user, open an Internet browser.

3. In the address bar, enter http://localhost:631.

4. Select the "Administration" tab.

5. Select "Add Printer".

6. Select the required printer and click "Continue".

7. Enter a name, description, and location for the selected printer.

8. Uncheck the option "Share This Printer" and click "Continue".

9. Click "Select Another Make/Manufacturer".

10. Select "Raw" from the list of printers and click "Continue".

11. Select "Add Printer".

12. For Banner, verify that the option is set to "none".

13. Set the Policies to "stop-printer" for error and "default" for operation.

14. Select "Set Default Options".

15. On the "Administration" tab, select "Add Class".

16. Enter a name, description, and location for the class, and select the members.

The newly defined printer can now be used to print a label from BarTender Web Print Server.

Using WPS

There are three primary pages in the BarTender Web Print Server application, one for each of:

- Label format selection
- Label printing
- Site administration

Label Format Selection

The home page of the BarTender Web Print Server is the "Label Format Selection" page, which displays preview images of as many label formats as you would like to make available. If enough label formats are present, the Search function performs a partial text match on the available label format names to "filter" down the number of displayed formats.

To bring up the "Print" page, you simply click on the desired label format.
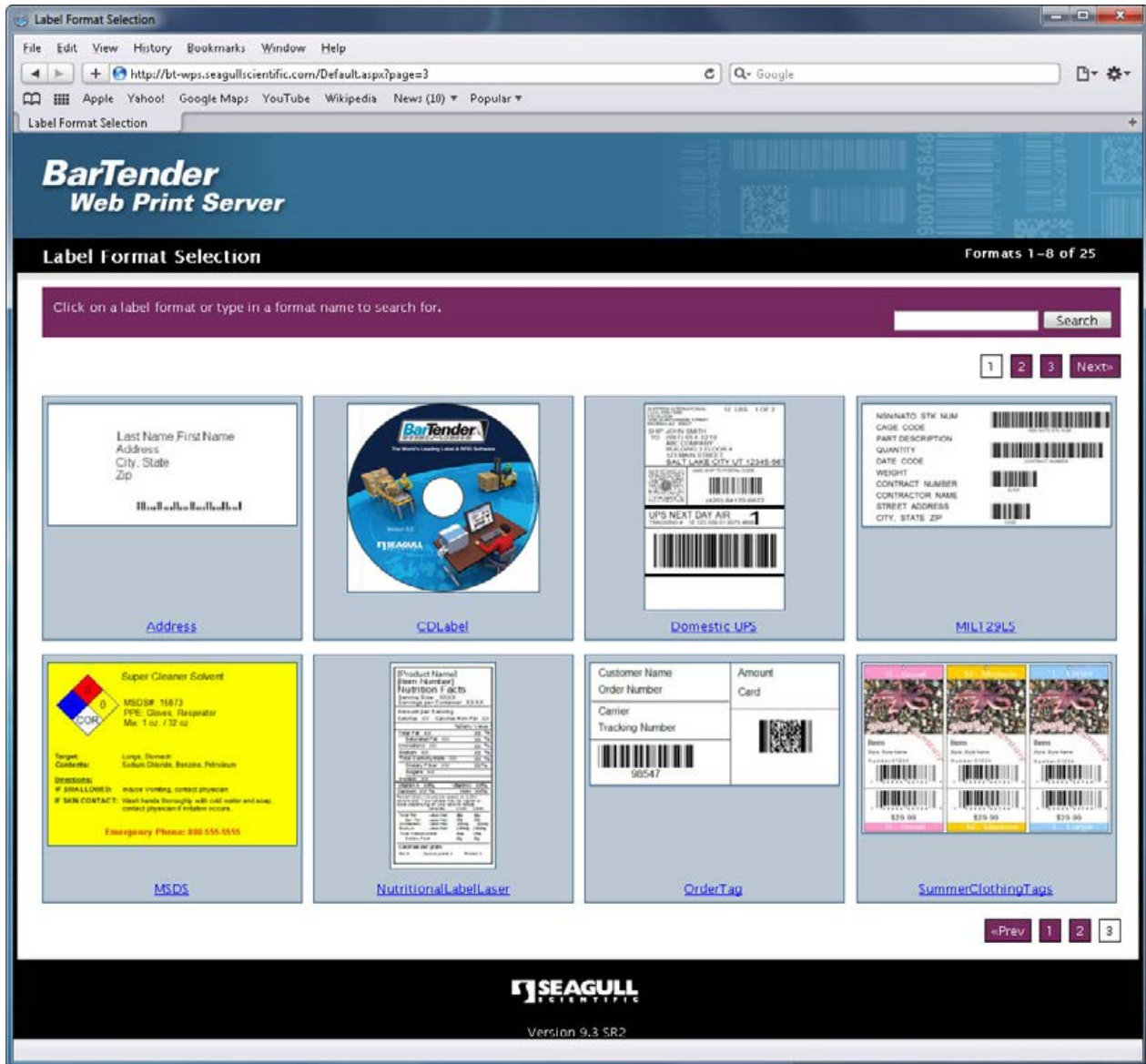
The Label Format Selection page of the BarTender Web Print Server lets you browse your label formats and click on the one that you want to print.
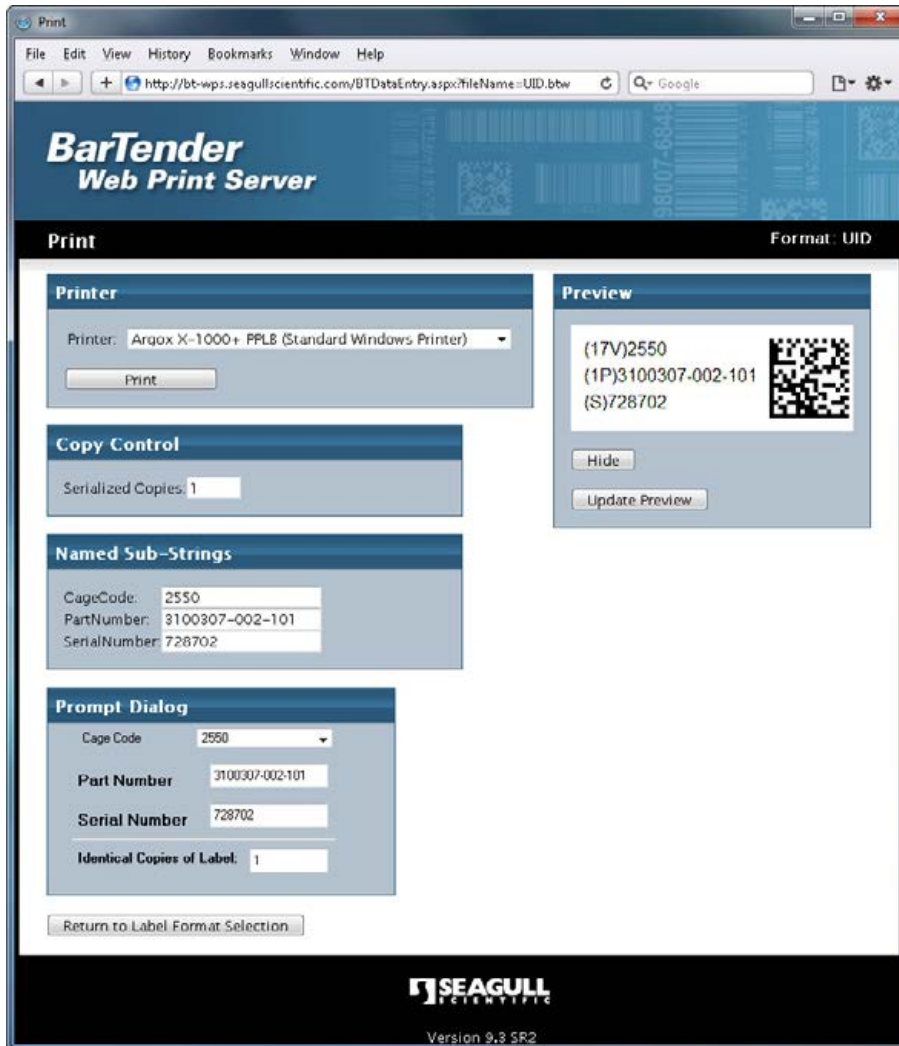
Printing

Once you click on the desired label format, the "Print" page is displayed, which gives most of the print-time options available inside a full-version of BarTender. You can change your selected printer, specify print quantity, and print. Depending on which BarTender options are in use for a given label format, other controls may be available on the "Print" page as well.

Query Prompts

If the label format is configured to read from a database and record selection is specified to be done using Query Prompts, then a panel will be displayed so that you can type in the record selection criteria.

Print-Time Data Entry

If the label format requires print-time data entry, then the format's Prompt Dialog is displayed in a panel, allowing you to type in any required data for the label. The Web Print Server application supports display of most of the prompt design functions available in BarTender, including new options introduced with BarTender 8.0. Once any data entry is completed, you can optionally update the on-screen preview to see how the data will look prior on the label prior to actually printing. (If a Prompt Dialog is not required and was therefore not designed in BarTender, the Prompt Dialog panel will not display on the Print page of the Web Print Server.)

*The Print page of Web Print Server offers most of the standard printing options you see inside of BarTender, including Print-time Data Prompts.*

Site Administration

The Site Administration page of the Web Print Server is for use by system administrators and is therefore not accessible to regular print-time users. The purpose of this page is to allow configuration of the web application, including the

size of certain graphic images and what functionality to offer in the Label Format Selection and Printing pages. When you install BarTender Web Print Server, you get an option placed on the Windows Start menu of your web server system for accessing the Site Administration page.   Alternatively, you can perform remote administration using your web browser.
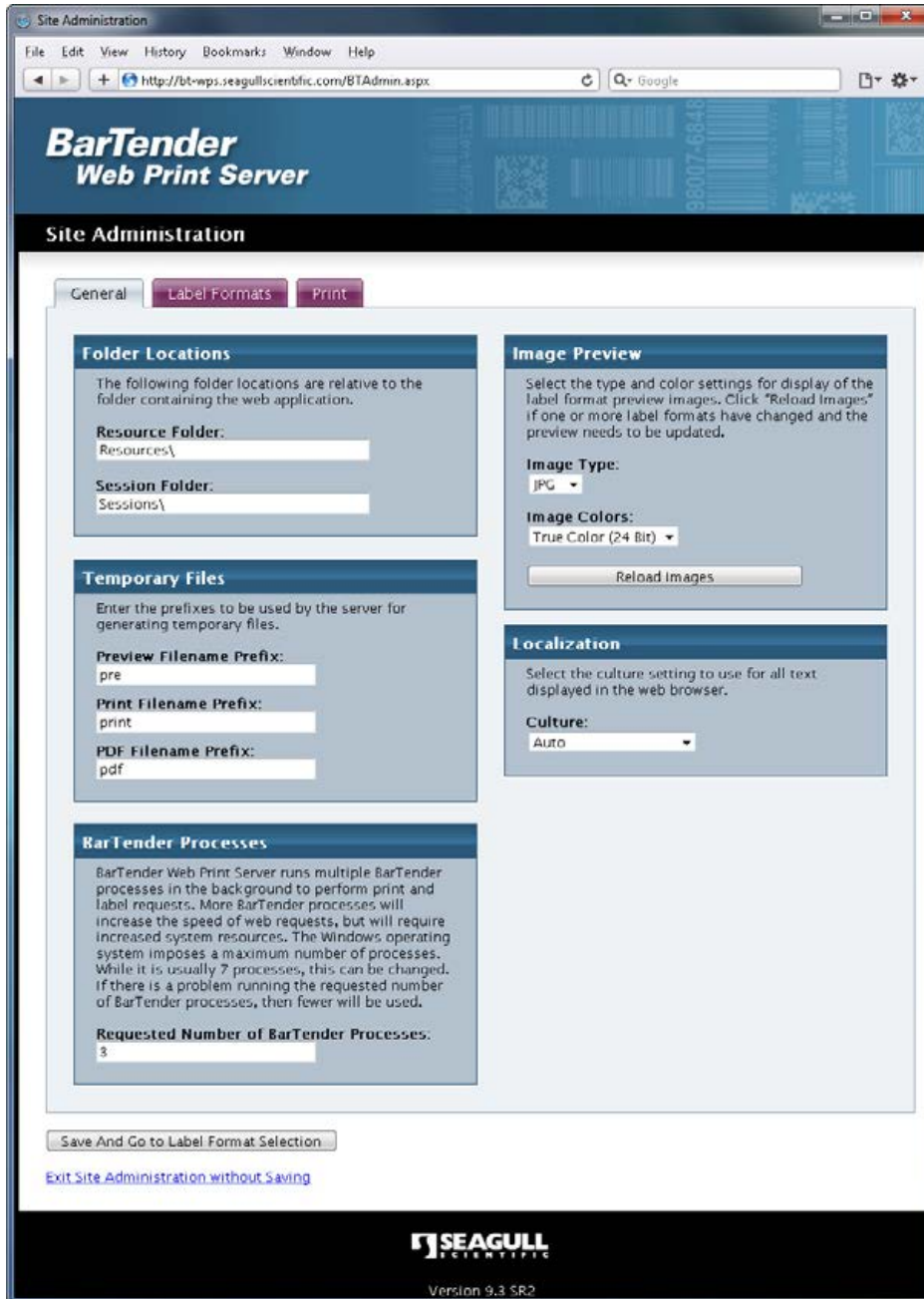
The Site Administration Page of the BarTender Web Print Server lets you choose which options are available to your users and how some of them will be displayed.

There are three tabs on this page that let you control the functionality of the site: the General tab, the Label Formats tab, and the Print tab.

General Tab

This tab specifies options that affect the entire site. Only Image Preview and Localization settings will affect what print-time users will see in the application. The Temporary Files and Folder Locations settings controls will rarely need to be changed.

Label Formats Tab

This tab determines the physical layout of the previews on the Label Format Selection page.

Print Tab

This tab controls the features that will be available to print-time users on the Print page. It is important to understand the three Printing Methods when configuring these options.

Using "Compatible Models" with Internet Printing

Internet printing normally requires a printer driver to be installed on both the client and server with the exact same model name. However, if you are sure that a particular client printer is very compatible with a driver already installed and available on the server, then you can use the Compatible Models panel on the server to specify that they are compatible and avoid having to install an unnecessarily large number of very similar drivers on the server.

The Printer Model list shows all of the models currently installed on the web server. Select one, and then Type in the names of printer models you know to be compatible in the Compatible Models control, one model per line. Wildcard characters * and ? are supported.

When using wildcards in the Compatible Models list, you can add printer model names to the Incompatible Models list to remove any specific models that would match the wildcard, but that you know are not compatible.

Label Format Design Considerations

Although the BarTender Web Print Server contains almost all of the functionality available when using BarTender as a printing client, it does have some limitations. There are therefore some design guidelines that must be followed. Some of these restrictions may be removed in future versions of the Web Print Server product.

Prompting

When a BarTender label format is selected with one or more substrings that have the Prompt at Print-Time option enabled, a Data Entry panel is displayed by the Web Print Server in the "Print" page. This panel is an HTML version of the "Prompt

Dialog" that would be seen when printing from a full copy of BarTender. The Prompt Dialog design view in BarTender can therefore be used to customize this form. If no substrings have Prompt at Print-Time enabled, and the prompt dialog does not have any controls on it, then this panel will not be displayed.

The following limitations currently apply when using the Prompt Dialog in the Print page of the Web Print Server:

- Substring types that are sourced from a database may not *also* be set to Prompt at Print-Time. You may specify substrings to be sourced from a database *or* prompted for at print time, but not both.
- VB Scripting as a source for list boxes is not supported.
- When restrictions on data entry are specified in the Data Source, More Options dialog of BarTender, and the user violates those restrictions, pop-up warning messages are not at this time displayed in the web browser (as they would be if printing from within BarTender). However the specified restrictions *are* enforced and you can use the Update Preview function on the Print page to see the resulting data as it would appear if you printed the label.

Record Selection

Viewing matching records and manually picking records to print is not yet supported from within a web browser. You can, however, perform record selection by specifying Query Prompts in BarTender. The data you enter into the query prompt will be submitted to BarTender, which will execute the query as it normally would and print the labels that match the specified search criteria.

Changes in v1.1 (July, 2009)

The initial release of WPS was version 1.0. Version 1.1 added the following features.

Full Translations

WPS version 1.1.19 introduced translations of the WPS user-interface into all 23 languages supported by BarTender. Prior to this update, the user-interface for browsing, selecting and printing labels was only available in English and Japanese.

Supports Acrobat 9.0 PDF Converter

For users doing PDF Printing, BarTender Web Print Server v1.0 was tested with Acrobat version 5.0. With one of Adobe's updates to Acrobat (some time after the initial release of Web Print Server), Adobe changed the name of one of its Acrobat files. This prevented that and subsequent versions of Acrobat from being used by WPS. This change has now been allowed for in WPS and is fully tested using Acrobat version 9. Compatibility with Acrobat versions 6 through 8 is assumed, but WPS has only been formally tested by Seagull with Acrobat versions 5 and 9.

Changes in v9.3 (November, 2010)

The following changes were made in v9.3.

Version Number Scheme
The version number scheme for WPS was changed. Now WPS will be treated like the rest of the companion applications in the BarTender Suite and have the same version number as the version of BarTender that it requires.

Supports BarTender's New Data Entry Controls
BarTender v9.3 added support for several new types of controls on the data entry form including checkboxes, radio buttons, and other types of list controls. See the "What's New in BarTender v9.3" whitepaper for full details. This version of WPS supports those new control types.

Improved Internet Printing
The previous version of WPS only supported Queue-based Internet Printing using ActiveX for the Client-side Print Module. This limited clients to Windows PCs with IE and required Windows printer drivers be installed on the client. Several improvements were made.

Direct-to-port Internet Printing
Queue-based Internet Printing requires a printer driver to be installed on the client. With the optional Direct-to-port Internet Printing support, you do not need to have a printer driver installed on the client as the print code can be sent directly from the browser to the printer port. This requires that the printer be attached to the client PC using a serial, parallel, or TCP/IP network port.

Java Client-side Print Module
In addition to the existing ActiveX Client-side Print Module, a Java Client-side Print Module was added. The Java client provides support for a wider variety of browsers and operating systems as shown below. You can configure WPS to always use either the ActiveX or Java Client-side Print Module, or you can set WPS to automatically use the best one depending on the client.

Support for Firefox, Chrome, Opera, Safari Browsers
With the optional Java Client-side Print Module, many other browsers can be used in addition to Internet Explorer, including Firefox, Chrome, Opera, and Safari (depending on your OS).

Support for Linux and OS X Clients
With the optional Java Client-side Print Module, Linux and OS X clients are supported in addition to Windows clients.

Changes in v9.4 SR1 (March, 2011)

The following changes were made in v9.4 SR1.

Improved Data Validation
Prompt Dialog and Query Prompt panels now validate input text as configured in the sub-string options, including minimum, maximum, conversion to uppercase/lowercase, and ISO 646 validation

Improved Preview
Preview image now shows a preview of the first label in the job, including data base field, shared substring, and query prompt values

Show User Messages from VB Script
Added a new UserMessage() VB Script function to help with validating data and displaying print-time user messages in WPS.

Updated Java Support
The Java print module's "direct to port" printing feature now works with the latest version of Java 6 update 24.

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