

**SpineOMatic v. 7.0**  
Boston College Library Systems  
July 8, 2015

## **Table of Contents**

<b><u>Quick Start Guide -- Installation</u></b>	<b>4</b>
Verifying Java Installation	
Installing SpineOMatic	
Connecting to Alma	
License Agreement	5
Settings	
<i>In the Print Setup panel</i>	
<i>In the Alma Access panel</i>	
Verifying Installation	6
Print Driver Settings	
<b><u>Using SpineOMatic</u></b>	<b>8</b>
The Basic Workflow	
Printing Options	
The Alma XML file	
Picking Element Names from a List	
XML error Checking	
<b><u>SpineOMatic Features Overview</u></b>	<b>11</b>
Call Number and Holdings Parsing	
Using Ex Libris Parsed Holdings	
Adding Label Prefixes	12
Units and Decimal Selection	
Multi-label Printing	
Activity Reports	
Custom Labels	13
Pocket Label Sets	
Margin Settings Recall	
Temporary Barcode Creation	
Viewing the Alma XML File	14
Automatic Software Updates	
Copying to the Clipboard	
Help tooltips	
<b><u>The Details</u></b>	<b>15</b>
User Interface	
Setup Options	16
Station Name	
Require username	

Enable Temp Barcode Creation	17
Show Tips	
About	
<b><u>Setup Panels</u></b>	<b>18</b>
Print Setup Panel	
<i>Label Maximums</i>	
<i>Printer Type</i>	
Single Label Desktop	
Batch Print	19
FTP Label Printer	21
The “viados.bat” Option	
<i>Multi-label Printing</i>	
<b><u>Call Number Format Panel</u></b>	<b>22</b>
<i>Label Type</i>	
Spine	
Custom	23
Label Formatting	24
Custom Flag Slips	27
Pocket Label Sets	29
Setup	30
Print Setup	31
User-defined Pocket Labels	33
<b><u>Tweak and Test</u></b>	<b>34</b>
LC/LC children’s lit/NLM Parsing	
Test Parsing	
Dewey Parsing	35
Class number display options	36
Digits per Line	
No break until dec. digit#	37
SuDoc Parsing	38
Other Parsing Scheme	39
Holdings Parser	40
<b><u>Label Prefixes Panel</u></b>	<b>41</b>
<i>Creating the Label Prefixes Table</i>	42
<i>Putting the Label Prefix File on a Server</i>	
<b><u>Current XML Panel</u></b>	<b>44</b>
<i>Copy to Clipboard</i>	
<b><u>Alma Access Panel</u></b>	<b>45</b>
<i>Diagnosing Authentication or Connection Problems</i>	
<i>Web Credential Problems</i>	

<a href="#"><u>Reports Panel</u></a>	47
<a href="#"><u>SpineOMatic Settings</u></a>	49
<a href="#"><u>Appendix</u></a>	50
Printer type: Label Printer via FTP	
The “viados.bat” Option	

**SpineOMatic v. 7.0**  
Boston College Library Systems  
June 16, 2015

Screenshots may show earlier versions if layout and functionality have not changed in v. 7.0

SpineOMatic is a Windows application that prints spine labels, flag slips or other custom labels for items in Ex Libris' Alma system. It runs under Windows 7, Vista or Windows XP. It requires the .Net framework version 2.0 or higher to be present on the client machine.

SpineOMatic uses an item's barcode number to retrieve an XML file from Alma, which contains data that can be used to create many kinds of labels. XML files can be retrieved using the "SOAP" method, which requires a current version of Java to be installed on the labeling workstation. **This method has recently been deprecated, and will eventually be phased out.** The "RESTful" API method does not require Java, but does require that you obtain a special API key from Ex Libris' Developer's Network. Check with Ex Libris to get the details.

## Quick Start Guide -- Installation

### Using Java Access (for the deprecated "SOAP" access method only)

The SOAP ("*Simple Object Access Protocol*") method requires Java to access Alma's item XML files, so you must ensure that the Java JRE (Java Runtime Environment) is installed on the PC, and is accessible. To check, go to the Command Prompt in Windows, and type **java -version**. If you get a response showing the version information, you're probably OK. If not, the **Java JRE** can be installed easily from the [Oracle Java website](http://www.oracle.com/technetwork/java/javase-downloads-134494.html). You can also install Java manually into a directory of your choice, but you must make sure the computer's **Path Environment Variable** includes the path to your Java installation.

### Using RESTful Access

The preferred method for getting labeling XML files from Alma is with a REST (*REpresentational State Transfer*) API call. Java is not required, which simplifies SpineOMatic's installation and operation. It does require that you get a unique API key from Ex Libris' Developer's Network, and insert that key into the "API Key" area in SpineOMatic's "Alma Access" panel. You will also need to insert the Alma URL for your Alma installation. Finally, select the "Use RESTful API" radio button to use the RESTful service.

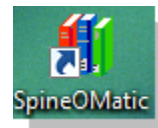
The screenshot shows a software interface for configuring Alma access. At the top, there is a radio button labeled "Use RESTful API" which is selected, followed by the text "(Java not required)". To the right of this is a checkbox labeled "Don't convert XML" which is unchecked. Below these are three input fields: "ALMA URL:" with the value "https://api-na.hosted.exlibrisgroup.com", "Method:" with the value "/almaws/v1/items?view=label&item\_barcode={item\_barcode}", and "API Key:" with the value "abcdefghijklmnopqrstuvwxyz0123456789".

NOTE: Because the RESTful XML files have a different layout than the SOAP files, SpineOMatic converts the RESTful XML into a format similar to the SOAP format. This

ensures that your existing XML field names will work without extensive modification. To view the actual RESTful XML format, click the “Don’t convert XML” checkbox, and scan or type a barcode number. You will be taken to the Current XML panel, and the actual RESTful XML file will be visible. Labels will not be created while the “Don’t convert XML” box is checked.

## Installing SpineOMatic

Go to the download link provided (currently [here](#)). Installation consists of downloading the SpineOMatic application ("SpineLabeler.exe") and placing it into an empty folder on the workstation. Creating a folder named "C:\Spine" is recommended, but any folder will do as long as the folder has no security policy restrictions that would prevent SpineOMatic from reading, writing and deleting files, as well as running the necessary Java programs. Right-click the “SpineLabeler.exe” file name and click “create shortcut.” Drag the shortcut to the desktop, and name it “SpineOMatic”. **Note: Don’t change the name of the “SpineLabeler.exe” file. If you do, the “Check for Updates” feature will not work properly.**



## Connecting to Alma

SpineOMatic sends a barcode number to Alma via the “Ex Libris Label Printing Web Service,” and gets back an XML file containing information about the item that can be used to construct a label. It contacts Alma either by using a **Java App** on the PC, or by calling a Java servlet on a server. The **Java App** method is the one most people will use, and is the one described here.

## License Agreement

When a new version of SpineOMatic is started for the first time on a given computer, the standard Boston College click-through License Agreement will appear. To continue with the installation you must respond by clicking the “**I agree**” button to indicate that you’ve read the License Agreement and agree to its terms. If you click the “**I decline**” button, installation will be cancelled and the program will terminate. Upgrading to a new version of SpineOMatic or moving the software to a different computer will also pop up the License Agreement.

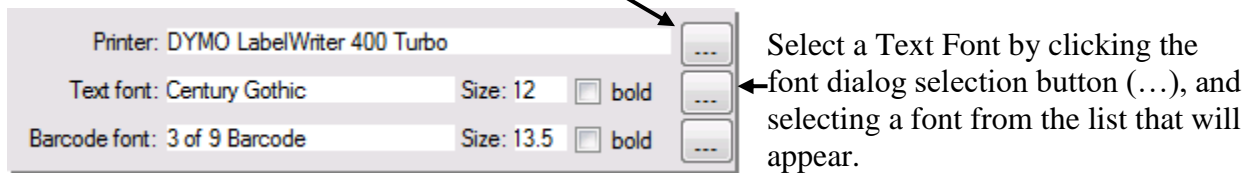
## Settings

SpineOMatic is highly customizable, and comes with many default settings that you can change to suit your needs. To get started, you will need to **select the label printer** you'll be using, as well as a **printer font**. You'll also need to store your **Alma credentials** to give SpineOMatic permission to get the Alma label files. This need only be done once.

All settings are made in the **Setup Panels**. These panels are visible when you start SpineOMatic for the first time, but you can open and close them as needed by clicking the **blue arrowhead** in the upper right of the user interface, or by pressing **CTRL a**.

### In the Print Setup panel:

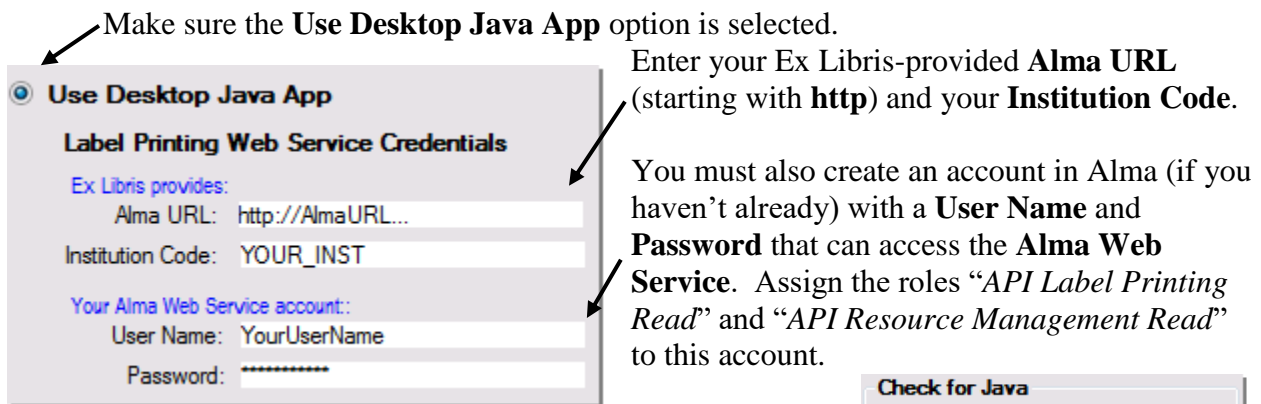
Click the printer dialog selection button (...), and select a label printer from the list of installed printers that will appear.



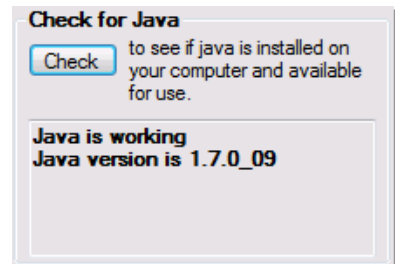
*The Barcode font is optional, and is required only if you create custom labels that include barcodes.*

**In the Alma Access panel:**

**To use the deprecated “SOAP” method:**

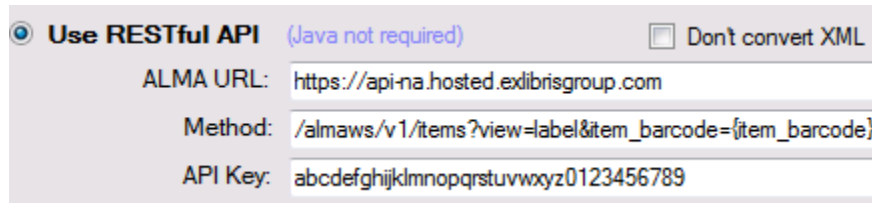


Click the "Check" button to verify that SpineOMatic can access Java. If there is a problem with Java access, check with your local computer support personnel to ensure that Java is properly installed, and that all folders on your computer can access it.



**To use the recommended RESTful method:**

Select “Use RESTful API,” and enter the Alma URL and your API key:



The “Method” does not have to be changed.

## Verifying Installation

Make sure the "**Review**" option is selected. Click the "**scan**" button. This button clears the Input Box and waits for a barcode label to be scanned or typed. When manually typing a barcode number, you must press the Enter key when done. Scanners are usually programmed to provide the "Enter" code automatically. In a few seconds a spine label should appear in the Output Box. Click the "Send to desktop printer" button to print the label.

## Print Driver Settings

Desktop label printers (such as Zebra, etc.) may need their Windows print driver settings adjusted, especially new ones out of the box. Every printer and every operating system (XP, Vista, Windows7, etc.) may offer different options.

Printer driver **Defaults** apply to all users. **Preferences** are specific to the user who is logged in. I try to make both sets of values the same.

Left and Top margin settings should be set to 0.00. Thermal printer "Burn Temperature", "Darkness" or "Print Density" should be set near the top of the range (darkest) and adjusted downward if needed.

Many other settings are available, depending on the printer. Typical settings include:

Media Type: Thermal Transfer (if you're using a ribbon), or Thermal Direct (if you're not)  
Paper format or Orientation: Portrait  
Size: the height and width of the labels you're using  
Unprintable Area: "0.00" for all settings  
Adjustment: should generally be "0.00"

**If you do make changes to the Windows print driver while SpineOMatic is running, make sure to CLOSE and RESTART SpineOMatic to pick up the new settings.**

# Using SpineOMatic

## The Basic Workflow

- A barcode number for an item is scanned or typed into SpineOMatic's input box.
- SpineOMatic sends the number to Alma to retrieve the item's XML file.
- If Alma cannot be contacted, or if the item does not exist, an error message is displayed.
- If the item is found, the library name and title are displayed, and the call number is parsed into a vertical format suitable for printing on a spine label.
- If the item is in a special shelving location, a **label prefix** ("Media", "Reference", "OVERSIZE", etc.) can be added automatically above the call number.
- The spine label can be reviewed and manually edited, if necessary, and sent to a selected printer with a button click. Or, labels can be sent automatically to the printer without manual intervention. Labels can also be stored in one of three batches for later printing.

## Printing Options

Spine labels can be sent to three types of printer:

- **Dedicated single-label desktop printers**, such as Zebra, DYMO, Smart Label Printers, or any other printing device that has a Windows print driver.
- **Laser printers using multi-label sheets.** As barcodes are entered, the resulting labels are stored in one of three separate batches. A batch can then be printed at a later time. The Print Preview option ensures that labels are correctly aligned before printing. You can use a partial sheet of labels by specifying the row and column position of the first available label on the sheet.
- **Ethernet-connected CAB A4+ (or similar) industrial label printer**, via FTP. *This specialized option is not likely to be used by many libraries, but it is available. See the Appendix for details.*



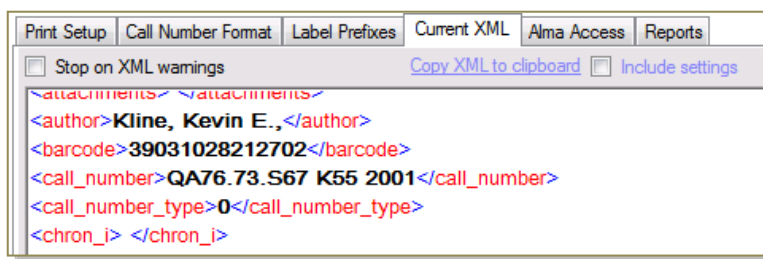
Font type and size are selectable for all printing options. Dimensions and orientation of the labels can be specified for both single labels, as well as for any number of rows and columns of labels on multi-label laser printer sheets.



## The Alma XML File

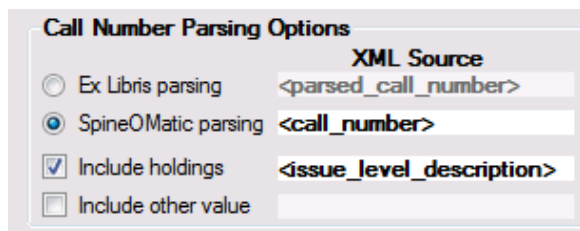
When you scan a barcode number for an item that's in Alma, an XML file is sent back to your workstation. This file contains fields (library name, barcode number, title, author, call number, and many others) that can be used to create many kinds of labels. SpineOMatic knows how to create a standard spine label out of the box, but if you want to create your own labels, or add additional fields to the spine label (such as copy number, library name and the like) you'll need to use the XML "**element names**."

After you scan an item, you can view its XML file by clicking the **Current XML** tab:



The **element names** are the XML tags that are associated with a value. For example, `<call_number>` is the element name that refers to call number "QA76.73.S67 K55 2001". The `<call_number_type>` is `0`, which means that this is a Library of Congress call number.

There are several places in SpineOMatic where you are asked to specify "XML Sources." You will use these element names in those instances. In this example, SpineOMatic is told to parse the `<call_number>` element, and to include holdings information from the `<issue_level_description>` element.



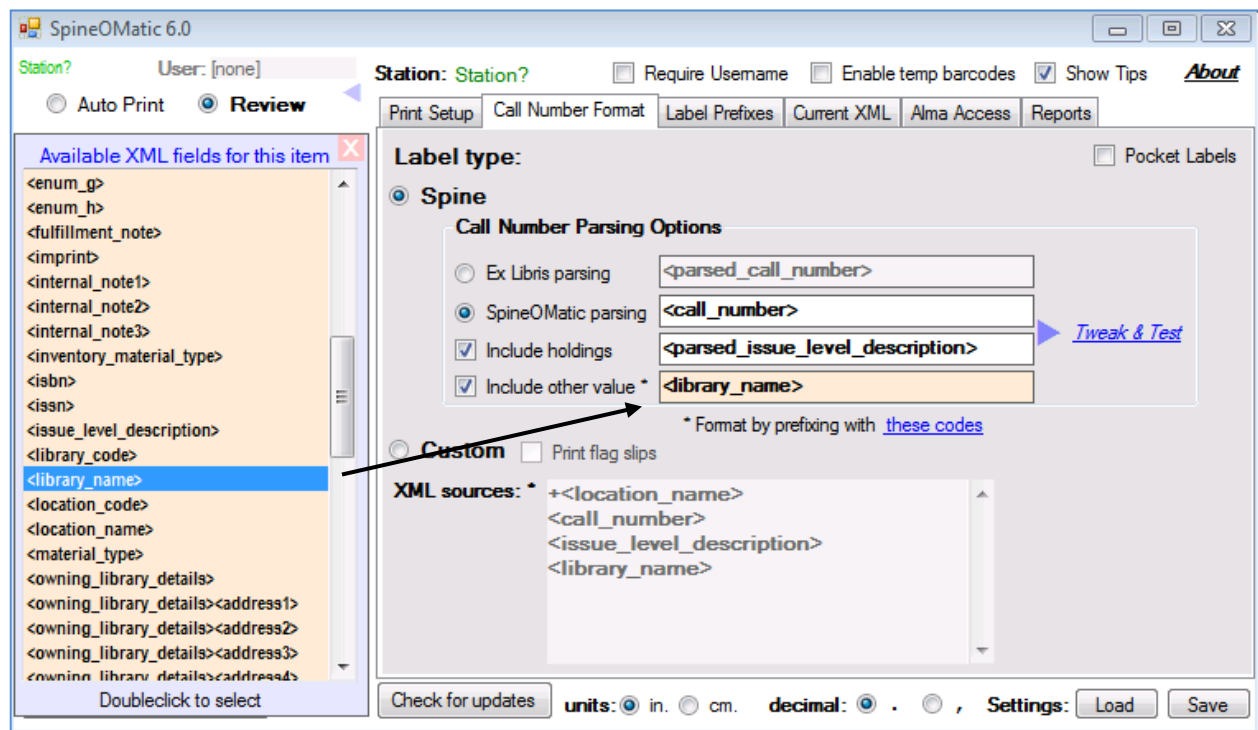
```
<author> </author>
<barcode>2291052-330</barcode>
<call_number>QE351 .E35</call_number>
<call_number_type>0</call_number_type>
...
<issn>1811-5209</issn>
<issue_level_description>v.8:no.2(2012:Apr.)</issue_level_des
cription>
<library_name>O'Neill</library_name>
<location_name>Current Periodicals</location_name>
<library_name>O'Neill</library_name>
<location_name>Current Periodicals</location_name>
```

Many of these element names are used by default in SpineOMatic, and do not require you to type them in unless you want to change an XML source for some reason. Some, such as "**Include other value**" above, are optional, and you'll have to enter an element name to use that feature.

## Picking Element Names from a List

SpineOMatic allows you to insert an element name without having to manually type it. Just scan an item and double click the relevant text area. For example, check the “Include other value” box (to make the text box active), and double click the text box. A list of all possible element names is displayed, and the text area changes color to indicate which box you’re changing.

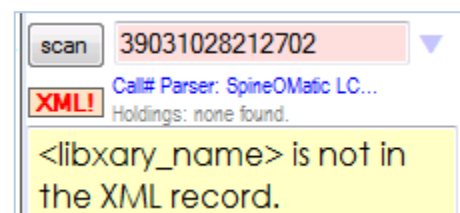
In this example, we want to include the library name on the label. The “Include other value” checkbox has been checked, and an item has been scanned. Double clicking the text box causes it to change color, and a list of all element names is displayed at the left. Scroll down to find the **<library\_name>** field, double click it, and the element name is copied to the text box.



For single-item text boxes, the list of element names will close after the selection is made. For multi-element text boxes, such as the “Custom” box, the list remains visible, and you can select several elements. The XML list must then be closed manually by clicking the “X”.

## XML Error Checking

If there’s a typo in an element name (such as “<libxary\_name>”), SpineOMatic will alert you to the error by displaying **XML!** on the User Interface. Click this “XML!” symbol to see which element name caused the problem. The label will still be created, unless you check the “Stop on XML warnings” checkbox in the “Current XML” panel. In that case an error is displayed, and the label is not created.



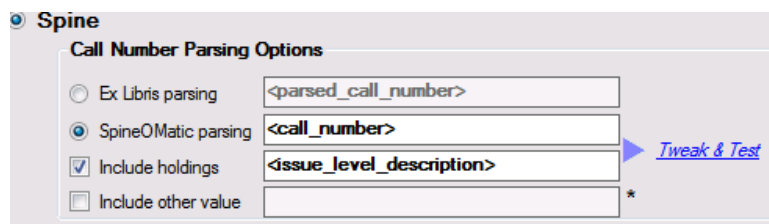
## SpineOMatic Features Overview

### Call Number and Holdings Parsing

You can use either Ex Libris' spine label parsing, or you can let SpineOMatic parse the labels for you. SpineOMatic's parsers can format spine labels for:

- Library of Congress and LC Children's Literature
- Dewey Decimal
- National Library of Medicine (NLM)
- Superintendent of Documents (SuDoc)
- Other (user-defined) schemes

When you use SpineOMatic's parsers, the “**Tweak and Test**” panels let you customize parsing behavior and to quickly test how different types of call numbers will parse. **Tweak and Test** also lets you change the way SpineOMatic parses Holdings, usually found in the `<issue_level_description>` XML element.



The screenshot shows the 'Spine' panel with the following options:

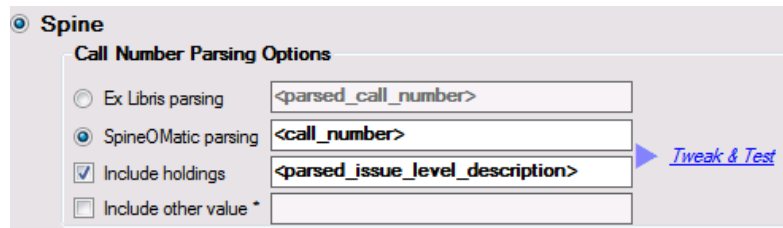
Call Number Parsing Options	
<input type="radio"/> Ex Libris parsing	<code>&lt;parsed_call_number&gt;</code>
<input checked="" type="radio"/> SpineOMatic parsing	<code>&lt;call_number&gt;</code>
<input checked="" type="checkbox"/> Include holdings	<code>&lt;issue_level_description&gt;</code>
<input type="checkbox"/> Include other value *	

A blue arrow labeled 'Tweak & Test' points to the right.

You can optionally add holdings information (from the `<issue_level_description>` field) to the spine label, and add any other value in the Alma Item XML file (such as “`<copy_id>`”, “`<library_name>`”), or even a string of free text.

### Using Ex Libris' Parsed Holdings

Ex Libris has added a parsed holdings statement to the item's XML file. You can select it by using the element name “`<parsed_issue_level_description>`” in the “Include holdings” box.



The screenshot shows the 'Spine' panel with the following options:

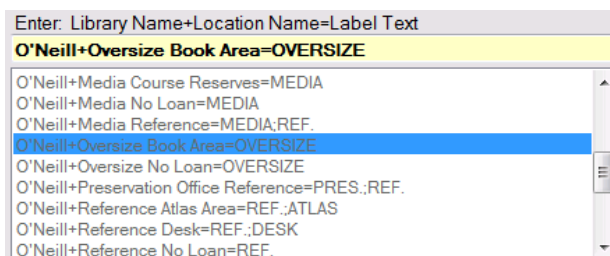
Call Number Parsing Options	
<input type="radio"/> Ex Libris parsing	<code>&lt;parsed_call_number&gt;</code>
<input checked="" type="radio"/> SpineOMatic parsing	<code>&lt;call_number&gt;</code>
<input checked="" type="checkbox"/> Include holdings	<code>&lt;parsed_issue_level_description&gt;</code>
<input type="checkbox"/> Include other value *	

A blue arrow labeled 'Tweak & Test' points to the right.

When you select `<parsed_issue_level_description>`, SpineOMatic's Tweak & Test Holdings feature will not be used. If you request Ex Libris' parsed holdings but they are not present in the XML record, SpineOMatic will attempt to parse the `<issue_level_description>` textual holdings instead, and indicate which holdings were actually used on the User Interface.

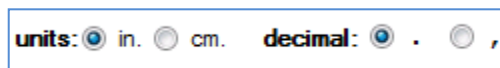
## Adding Label Prefixes

If an item is not shelved in the general collection, additional text (such as “MEDIA,” “OVERSIZE” or “Ref.”) can automatically be added above the call number on the spine label. You create a table that associates a Library Name and a Location Name to the desired text. This table can be built on one machine and copied to other PCs, or it may be kept on a server and downloaded to each workstation when SpineOMatic starts. See the “Label Prefixes” section below for more details.



## Units and Decimal Selection

You can specify whether margin settings and other measurements are expressed in inches or in centimeters. You can also select whether a period or a comma is used as the numeric decimal mark.



## Multi-label Printing



From one to 99 copies of a label can be sent to the printer for each scan. When sending multiple copies to the Desktop printer, the print button becomes a “Stop print” button. Click it to stop sending labels into the Windows print queue. For Batch (and for FTP) printing, a warning message is displayed any time you try to batch or FTP-print 5 or more copies of a label.


## Activity Reports

Each workstation that runs SpineOMatic can track usage by the name of the workstation and (optionally) by the station operator’s user ID. You can assign each workstation a name that uniquely identifies it, and you may optionally require that station operators provide a short ID, such as their initials. This information will allow basic labeling activity to be reported by date and time, such as how many labels were produced by user, library and location for a given date range. The “Reports” panel allows you to run and view basic activity reports.

A screenshot of a report window titled "SpineOMatic Labeling Activity Report -- From 12/1/2013 to 1/8/2014 -- Station: Library Systems". It shows a summary of labels printed and a table of activity by location.

SpineOMatic Labeling Activity Report -- From 12/1/2013 to 1/8/2014 -- Station: Library Systems	
Total labels printed in date range: 49 -- Lines in this report: 4	
Count	Location
14	Art Oversized Area
11	Stacks (STACK)
11	Stacks Unit Four
13	System's Office Reference

## Custom Labels

QA 76.6 .G33 M14 2004	Besides standard spine labels, SpineOMatic can also create custom labels. These labels can include any values from the item's XML file, lines of free text, a "<current_date>" field, or any combination thereof. Two user-defined label formats can be saved and recalled as needed. One format can be used to print flag slips for inserting into items that cannot have adhesive labels attached, and the other might be used to create current periodical labels. <b>Formatting codes</b> allow you to print barcodes, add extra blank lines, wrap long lines, and parse call number or holdings text.	 3093480 Stacks  PR 8892 .C58 2012 IRISH  A Clifden anthology/
QE351 .E35 v.8:no.2(2012:Apr.) 9/25/2013 Current Periodicals		

**Note:** If you need to print barcode labels, make sure to use a barcode font that meets your needs. If your barcode numbers must include spaces or special characters, be sure to select a barcode font that uses the entire ASCII character set. For Code39 users, this would mean using a **3 of 9 Extended** font. There are many free versions available on the Web.

## Pocket Label Sets

QA	QA76.73.S67 K55 2001
76.73	Kline, Kevin E.,
.S67	SQL in a nutshell : a
K55	desktop quick reference
2001	

The "Pocket Label" option prints a spine label along with one or two pocket labels, based on the standard OCLC SLB, SL4 or SL6 format that displays call number, author and title. You can also create your own pocket label format using up to four XML fields, and any line spacing you like.

## Margin Settings Recall

Each type of label (Spine, Custom, Flag Slips and Pocket Labels) remembers its printer settings. Margins, orientation, line and character limits, as well as the number of rows and columns for multi-label batches, are stored and then recalled when you again select that type of label.

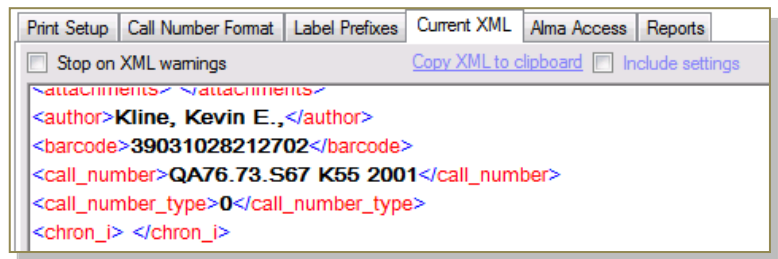
## Temporary Barcode Creation

A barcode number must be attached to an item in Alma before a label can be created. For items without barcode numbers, such as current serial issues, SpineOMatic can generate a dummy barcode number that can be dragged and dropped into Alma in order to provide the required number. The same number can then be dragged into SpineOMatic's input box, allowing it to retrieve the item's XML file and create a current periodical label.

temp>	TX140108122533941
scan	

## Viewing the Alma XML File

The item's Alma XML file is viewable from within SpineOMatic. This feature helps to configure SpineOMatic, and also helps resolve problems due to field names or values being different than expected.



## Automatic Software Updates

Clicking the “Check for Updates” button checks to see if a newer version of SpineOMatic is available. If there is, the user has the option to download the newer version of SpineOMatic. (The older version is renamed, but it is left in the SpineOMatic folder.) When SpineOMatic is closed and restarted, the new version is run. The settings used by the older version will be preserved, and, where applicable, will be used by the new version.

## Copying to the Clipboard

The text of Reports and the text of the Current XML panel (illustrated above) can be copied to your Windows clipboard. This makes it easier to send reports to the printer, or to get a quick copy of the item's XML file to use for diagnostic purposes. When copying the Current XML panel, you have the option to include SpineOMatic's settings from the “settings.som” file to aid in diagnosing problems.

## Help Tooltips

When the “Show Tips” box is checked, hovering the mouse pointer over any button or text area on the SpineOMatic window will pop up a tooltip with a brief description of that element.

# The Details

Screenshots may show earlier versions if layout and functionality have not changed in v. 7.0

## User Interface

When SpineOMatic starts, the **User Interface** is displayed. The features presented are those that are required to perform the basic tasks of scanning bar code labels and printing the resulting spine labels. Many other options and settings are available. These are detailed in **Setup Options** (below).

SpineOMatic assumes that an item's barcode number has been entered into Alma early stage in the cataloging process, and that a barcode label with that number has been applied to the item.

Toggle setup panels

A **Station Name** and an optional **User:** ID for data for Activity Reports.

**Auto Print** immediately sends the label to the printer once a spine label has been generated. **Review** allows the user to inspect the label and make corrections (if needed) before clicking "Send to desktop printer." (**Auto Print** becomes **Auto Add** if batch processing is selected.)

Library **name** and item **title** are displayed.

"R" when using RESTful API access; "J" for (deprecated) Java access.

The **Scan** button clears the input box, if necessary. The box clears automatically when a label is sent to the printer.

Barcode numbers can be typed, scanned, or dragged into the **Input Box**. The Enter key must be pressed after typing. Scanners can add the "Enter" code automatically, so no manual key press is required.

You can have SpineOMatic parse the call number and holdings, or select the parsing supplied by Ex Libris.

The call number is parsed into the **Output Box**, and may be manually edited. The label prefix "SYS. REF." has been added automatically to the top of the label by the **Label Prefix** feature.

If **Review** is selected, click the print button or use keyboard shortcut **CTRL p** to send the label to the printer (or to a batch, if batch processing is selected). The Output Box then clears and the Input Box is readied to receive the next barcode number.

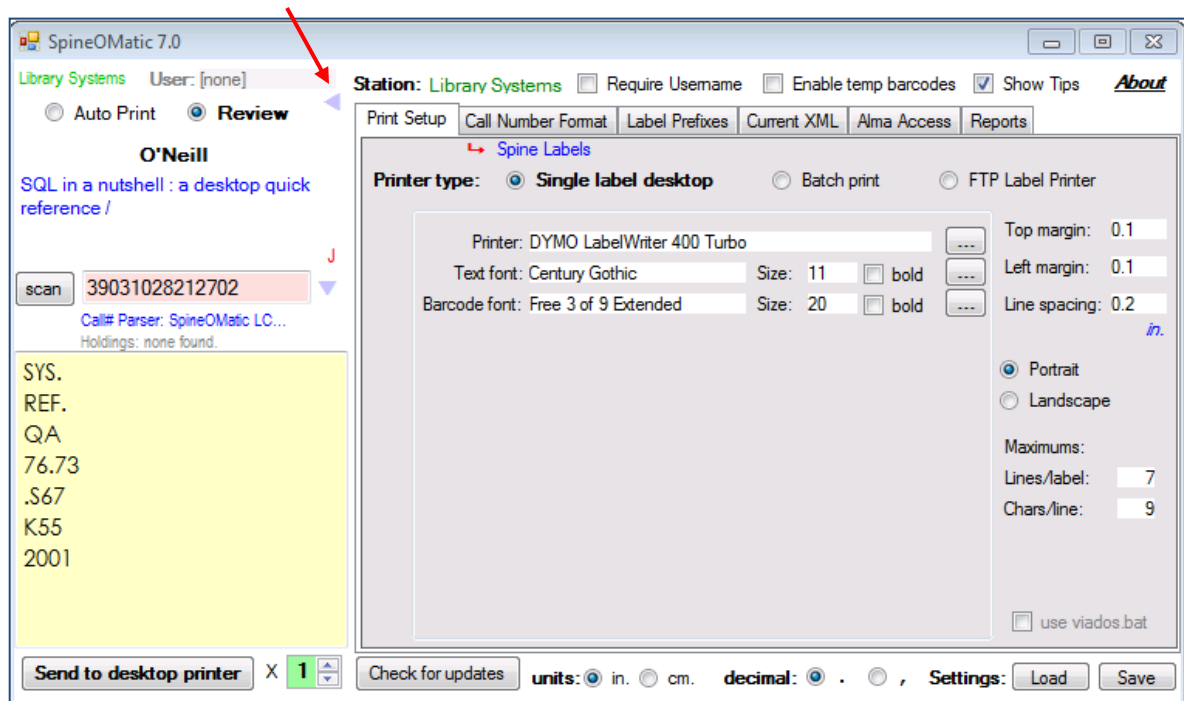
Print from 1 to 99 copies of the label.

Click the arrowhead to recall the last five barcode numbers that have been scanned. Double click a number to reload it into the Input Box. Then press Enter to create the label.



## Setup Options

The user interface shown above can be expanded to reveal the **setup** panels, where all the other features of SpineOMatic are accessed and configured. Click the **blue left/right arrowhead** or use the keyboard shortcut **CTRL a** to reveal or hide the setup panels.



### Station name

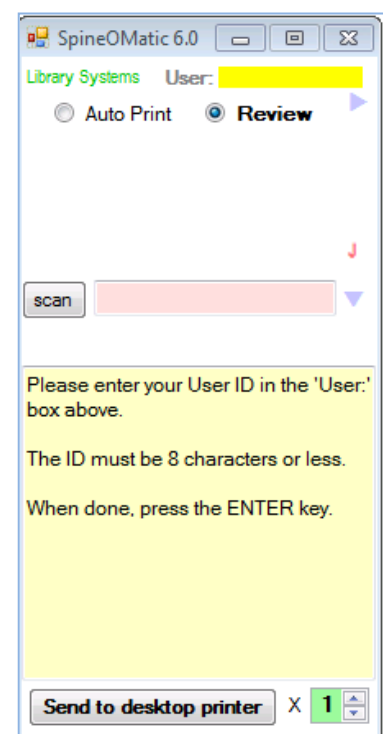
Enter a brief name in the “**Station:**” box that will uniquely identify this workstation in future Activity Reports.

### Require username

Checking this box forces the user to enter a brief name or number in the “User:” box in the upper right of the User Interface. The Output Box instructs the user to enter their name or ID, and to press the Enter key. The User ID must be eight characters or less.

If no name is entered, the user will not be able to scan or print labels. Names are converted to upper case to ensure consistency from one session to the next. If “Require username” is not checked, the name “[none]” will be assigned in order to provide a default name in the activity log. “User: [none]” will display in the User Interface.

The multi-print option allows you to print from 1 to 99 copies of each label. Click the up/down arrows to increase or decrease the number

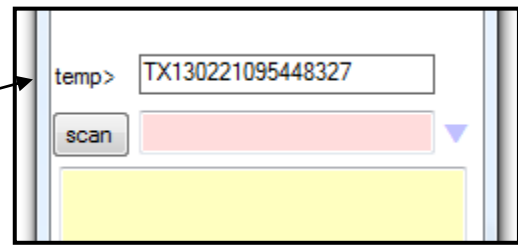




of labels printed. If more than 1 is selected, the box turns red to alert you that more than one label is being printed.

### Enable Temp Barcode Creation

When this box is checked, a “temp>” feature appears on the User Interface. Clicking “temp>” generates a dummy barcode number that can be dragged to Alma and assigned to an item that does not have a permanent barcode number. Once assigned, the “temp” number can be dragged into the Input Box to retrieve the item from Alma.



### Show Tips

If the Show Tips box is checked, hovering the mouse pointer over most labels and text boxes anywhere on the user interface will pop up a brief description of the item under the pointer.

### About

Click “[About](#)” to view the copyright statement, contact information, and the latest version of this user’s manual. The manual is a Microsoft Word **.doc** file that will be downloaded into SpineOMatic’s installation directory (usually “C:\spine”). If MS Word is installed on the workstation, the document will open and display automatically. Clicking the “View License Agreement” button opens the text of the agreement in Notepad on your computer.



## Setup Panels

Click a panel name (**Print Setup**, **Call Number Format**, **Label Prefixes**, **Current XML**, **Alma Access**, or **Reports**) to access the features of that panel.

### Print Setup Panel

This panel allows you to specify the type of printer, the font and font size, orientation, and margins to be used for printing labels.

### Label Maximums

You can specify the maximum number of lines allowed per label, and the maximum number of characters allowed per line. If the typical 1" x 1.5" spine labels are being printed, only seven or eight lines will fit vertically on the label, and eight or nine characters will fit across (depending on the print font and size). Enter those values in the Lines/label and Chars/line boxes. If these values are exceeded when a label is rendered in the Output Box, a warning message will appear. The label can then be manually corrected, if necessary. When creating large custom labels, these values must be adjusted to accommodate the longer lines.

### Printer Type

Select the printer type, either **Single label desktop**, **Batch print**, or **FTP Label Printer**.

### Printer type: Single Label Desktop

This setting is generally used for dedicated thermal, ink jet or dot matrix label printers that are directly connected to the workstation.

See the kinds of labels that are being printed.

Print Setup | **Call Number Format** | Label Prefixes | Current XML | Alma Access | Reports

Spine Labels

Printer type: ☒ **Single label desktop** ☐ Batch print ☐ FTP Label Printer

Printer: DYMO LabelWriter 400 Turbo ...

Text font: Century Gothic Size: 12 ☐ bold ...

Barcode font: Free 3 of 9 Extended Size: 20 ☐ bold ...

Top margin: 0.1

Left margin: 0.1

Line spacing: 0.2 in

☒ Portrait ☐ Landscape

Maximums:

Lines/label: 7

Chars/line: 9

☐ use viados.bat

Click "... to view and select any printer or font installed on the workstation.

Specify the positions on the label where printing will start, in inches or centimeters.

Select portrait or landscape orientation.

Set maximum number of characters & lines allowed for the labels.

Use a Windows batch file to process the label.

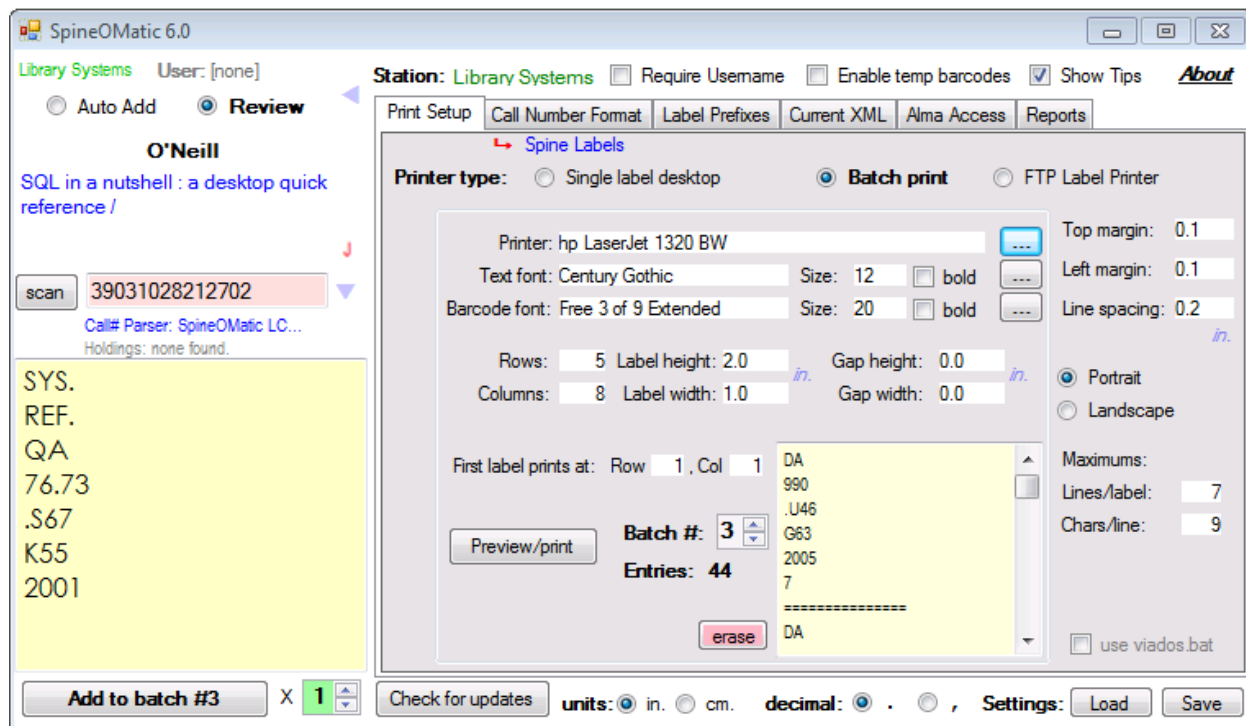
The label format (from the Call Number Format panel) is shown on the Print Setup panel. In this example, the “Spine” label format is in effect. Other options include “Custom,” “Custom Flag Slips,” or “Pocket Labels.”

Values for margins are in inches, and decimal fractions are permitted. In the example above, the top margin will be 1/10<sup>th</sup> of an inch below the physical top of the label, and the left margin will be indented 1/10<sup>th</sup> inch. The line spacing is set to separate each vertical line by 2/10<sup>th</sup> inch.

**SpineOMatic assumes that the Windows print drivers for the various desktop printers have been configured via the Windows Control Panel to work with spine label stock, that label dimensions have been set, and so on. Windows printer defaults and print preferences settings are not set or changed by SpineOMatic.**

**Note also that if Windows print driver settings are changed while SpineOMatic is running, you must close and restart SpineOMatic for it to pick up the new driver settings.**

### Printer type: Batch Print



This option should be selected when a laser printer is being used to print a batch of spine labels on multi-label sheets. In this example the printer selected is a networked laser printer. The top and left margin settings apply to the overall printed page, and can be adjusted to offset the printed array of labels left or right and up or down so that the printing aligns correctly over the labels on the sheet. Line spacing applies to all labels.

The "Rows" and "Columns" must be set to match the arrangement of the labels on the laser printer paper. In this example there are 8 vertical columns and 5 horizontal rows. Each label is 1.0 inches wide, with no horizontal gap (0.0) between them. The labels are 2.0 inches high, again with no vertical gap separating them.

As spine labels are created they are stored in one of three batches. The batch number can be selected by clicking the up/down arrows until the number 1, 2 or 3 appears in the **Batch#** box. Any entries that are already in the selected batch appear in the display window, and the number of entries is shown alongside. (In the display window, a line of equal signs (=====) separates each label.)

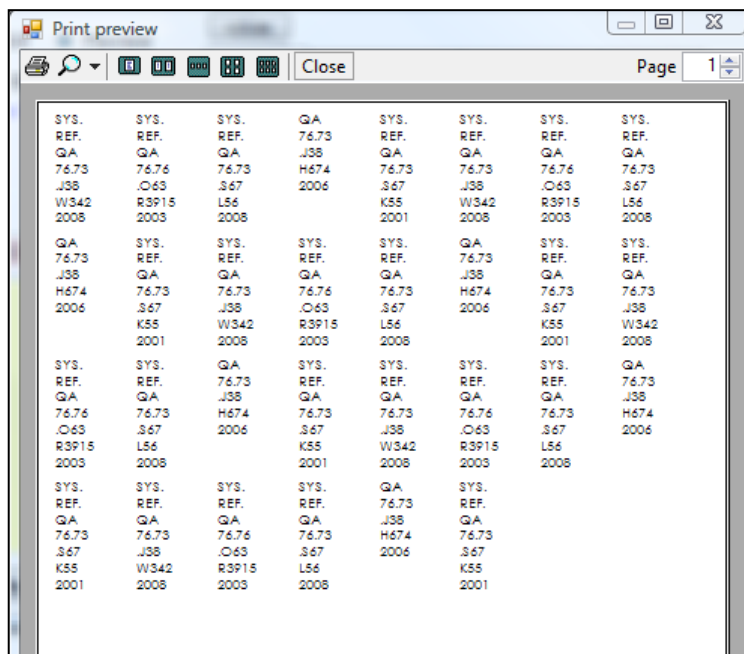
***Labels are printed with the margins, orientation, and other settings that are in effect at the time of printing, and not the settings that were in effect when the labels were added to the batch.***

Batches are not cleared when SpineOMatic closes, so batches can be accumulated over multiple scanning sessions. A batch can be cleared by selecting it and then clicking the "clear batch" button. If you verify the action, the batch will be erased.

As each barcode number is scanned it is stored in the selected batch (if **Auto Add** has been selected), or it will be sent to the selected batch when the button ("Add to batch #3") is clicked. The number shown on the button always matches the batch number that has been selected in the setup panel. To print the batch of labels, click the **Preview/Print** button. A preview of the print job will appear in a separate window:

The preview can be displayed in single- or multi-page views, and magnified to verify proper alignment on the page. If adjustments need to be made to the spacing, rows or columns, click the **Close** button, change the settings, and **Preview/Print** again. **To print**, click the printer icon in the upper left corner of the Preview window.

The "**Start printing on label sheet at:**" option allows you to print to a sheet of labels that has been partially used. Specify the row and column of the first available label and batch printing will begin at that label.



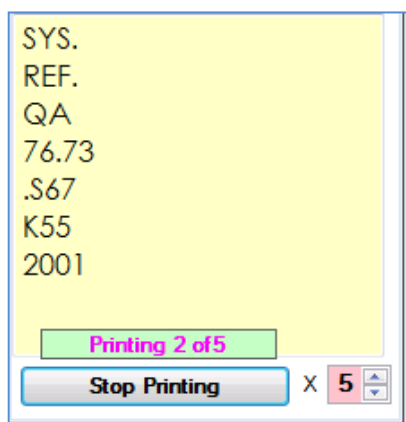
## Printer type: FTP Label Printer

This method of printing is described in the Appendix at the end of this report. *It's unlikely that this method would be widely used in other libraries, but it was required because our CAB industrial label printer model did not have a USB port and Windows print driver.*

## The “viados.bat” Option

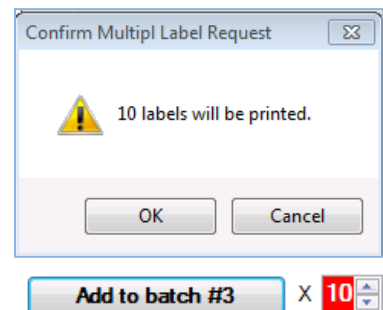
Printing to legacy dot-matrix tractor-feed printers can sometimes be a challenge with Windows. To provide a possible solution, SpineOMatic can send the label text to a DOS-style batch file that you create. Batch commands can access LPT and COM ports or networked printers, create and store files, run VBScript programs, or anything else that can be done at the Window CMD> prompt. Use of this option will require expertise in creating batch files. See the Appendix for complete details.

## Multi-label Printing



When printing multiple copies of a label to the Desktop printer, a counter shows how many labels have been sent to the print queue. You can click the “Stop Printing” button to prevent more labels from being sent to the queue. (Note that labels are sent to the queue much faster than they are physically printed.)

When sending multiple labels via Batch or FTP printing, there is no option to stop. But when more than 5 copies are specified a warning box pops up to confirm that you want to proceed with printing.



## Call Number Format Panel

This panel allows you to select the type of label to be created, and the fields in the item XML file that will be used to create it.

The screenshot shows the 'Call Number Format' tab in the SpineOMatic interface. The 'Label type:' section has 'Spine' selected. A red arrow points to this selection. The 'Call Number Parsing Options' section includes radio buttons for 'Ex Libris parsing' and 'SpineOMatic parsing' (selected), and checkboxes for 'Include holdings' (checked) and 'Include other value \*'. Text boxes show the corresponding XML tags: '<parsed\_call\_number>', '<call\_number>', and '<issue\_level\_description>'. A 'Tweak & Test' button is next to the last box. Below, the 'Custom' option is selected, and the 'XML sources: \*' list contains: '+<location\_name>', '<call\_number>', '<issue\_level\_description>', and '<library\_name>'. A note says '\* Format by prefixing with [these codes](#)'.

### Label Type: Spine

Selecting the “Spine” option will create a book spine label. You may have SpineOMatic parse the call number, taken from the "<call\_number>" element in the XML file, or you can select Ex Libris's parsing obtained from the "<parsed\_call\_number>" elements. You may also include **holdings information** on the label, taken from either the "<issue\_level\_description>", or from Ex Libris' <parsed\_issue\_level\_description>. Any other field from the Alma XML file can be included at the end of the spine label, such as <copy\_id> or <library\_name>.

A few parsing examples are shown below:

QA76.73 .J38 H674 2006    QE351 .E35 v.8:no.2(2012:Apr.)    QD251 .R62 v. 4 pt. K

QA  
76.73  
.J38  
H674  
2006

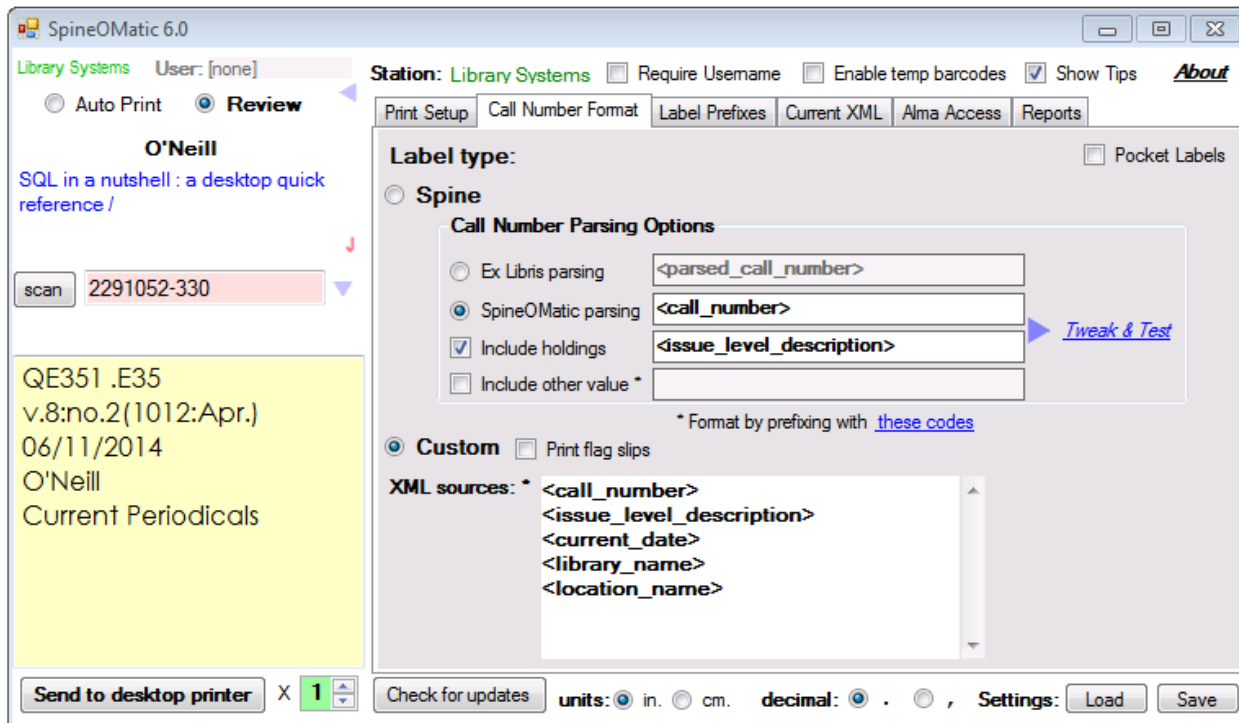
QE  
351  
.E35  
v.8  
no.2  
(2012:  
Apr.)

QD  
251  
.R62  
v. 4  
pt. K

## Label type: Custom

Two different user-defined custom labels can be created and stored in SpineOMatic. One type appears when the “Flag slips” option is checked, and another type appears when it is unchecked. Custom labels may be constructed using any elements from the XML file (along with a special element called **<current\_date>** that contains the current date).

When the **Custom** label type is selected, no parsing is performed for the call number and holdings elements, unless you explicitly use formatting characters (see below). The data elements specified in the selection box are printed as they appear in the XML file. Each element is printed on a separate line.



**QE351 .E35  
v.8:no.2(2012:Apr.)  
06/11/2014  
O'Neill  
Current Periodicals**

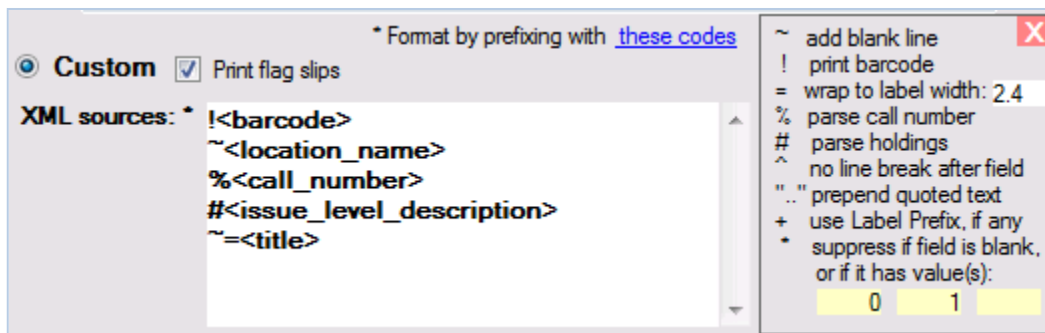
To create this label, Print type was set to Single Label Desktop, Chars/line was set to 40, and orientation was set to Landscape.



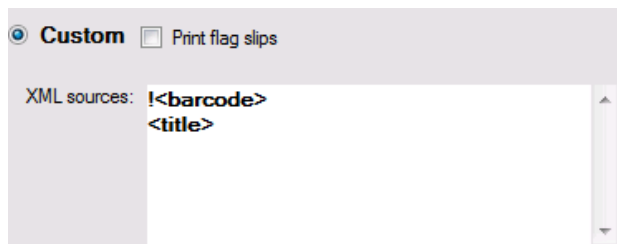
## Label Formatting

By default, the XML element names or raw text that you specify in the “**XML sources**” box and the “**Include other value**” box (in the Spine option) are printed as they are in the XML record. SpineOMatic lets you control how these XML elements display. Each of the element names can be preceded by special characters that control how the elements are printed. These characters are: **!**, **~**, **=**, **%**, **#**, **^**, **\***, **+** and a string of characters between double quotes: “...”.

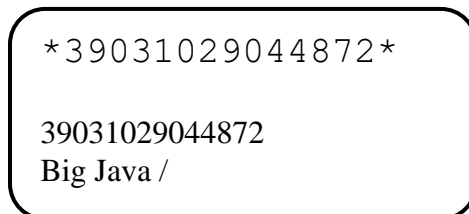
The codes, along with a brief description, are displayed by clicking the “[these codes](#)” link on the Call Number Format panel. Click X to hide the codes.



**!** before an element causes the item to be printed as a barcode on the label, in the font and size that you have selected for the “Barcode font.” The text of the barcode is printed below the actual barcode. For example, the custom label:



Creates this printed label:



**~** (a tilde) before an element name (or a line of free text) causes a blank line to be inserted before the element is printed.

**%** is used only before call number elements, either from an XML source, or entered as free text. This code parses the call number based on the `<call_number_type>` that is in the item’s XML record, or by using the LC parser if the call number is entered as free text.

**=** causes the line to wrap based on the “**wrap to label width:**” value. *This value can only be set or changed when you click “[these codes](#)” to reveal the formatting codes.* Labels always honor the Maximum lines per label and characters per line specified in the Print Setup panel, but the “**=**” code allows you to wrap long lines in a way that is appropriate for your labeling application. When using Batch Print mode, the label width on the Printer Setup page should be equal to or greater than this “wrap to label width” value.



# is only used before holdings data (typically the **<issue\_level\_description>**). It causes the XML element, or the free text string, to be parsed by SpineOMatic's Holdings parser.

^ suppresses the line break that follows an element. Normally, each element of a custom label prints on a separate line. Using the caret (^) formatting character suppresses the line break. The following field will not print on a separate line, but will follow the caret field separated by a space.

“...” (**quoted text**) prepends the text between the quotation marks to the element. The quotation marks do not appear in the printed text. If there is an extra or a missing quote, an error message will warn of unbalanced quotation marks.

\* prevents a field from printing if it is blank, or if it is one of up to three user-specified values. In the example above, if the value is blank, “0” or “1”, the field will not appear on the label.

+ is used **only** with a **<location\_name>** element. Instead of printing the verbatim text of the **<location\_name>** from the XML file, the + code looks up the **<location\_name>** in the Label Prefix table (described further down in this report), along with the **<library\_name>** for the item. If an entry is found, the label prefix text (following the “=”) is printed. This allows you to add line breaks to a lengthy location name by using the semicolon line break character:

O'Neill+Electronic Information Center=REF.;ELEC.
O'Neill+Information Desk 4 hour loan=Information;Desk;4 hour;loan
O'Neill+Media 4 day=MEDIA
O'Neill+Media 7 day=MEDIA;IRISH

Information  
Desk  
4 hour  
loan

In this example, the **<location\_name>** is “Information Desk 4 hour loan”, which is too long to fit on the labels. By adding **semicolons** to the label prefix text portion of the entry, the label text prints with line breaks:

Multiple formatting codes can be added to the beginning of a field, but using both % and # together would not produce useful results. Adding ~ and % before a call number element would be acceptable, since it would print a blank line followed by several lines of the parsed call number. Here is an example that uses several elements and formatting characters:

☒ **Custom** ☐ Print flag slips

XML sources: 

!<barcode>

~%<call\_number>

~<library\_name>



Note that the “**Include other value**” box in the Spine label option also allows you to use these formatting characters. In the example below, the library name will be added at the bottom of the printed label, preceded by a blank line due to the tilde (~):

QA

76.73

.J38

H674

2006

O'Neill

Send to desktop printer

x

1

Spine

Call Number Parsing Options

☐ Ex Libris parsing
 <parsed\_call\_number>

☒ SpineOMatic parsing
 <call\_number>

☒ Include holdings
 <issue\_level\_description>

☒ Include other value
 ~<library\_name>

Tweak & Test

\*

In the following example, the `<copy_id>` XML element has been added to the spine label. The `<copy_id>` value in the XML file is “2”, and the quoted text **copy:** has been added to that value on the spine label. The tilde (~) formatting character adds the blank line.

QA

76.73

.J38

H674

2006

copy: 2

Send to desktop printer

x

1

Spine

Call Number Parsing Options

☐ Ex Libris parsing
 <parsed\_call\_number>

☒ SpineOMatic parsing
 <call\_number>

☒ Include holdings
 <issue\_level\_description>

☒ Include other value
 ~"copy: "<copy\_id>

Tweak & Test

\*

In the example below, the `<copy_id>` returned “00000”, but because the \* (asterisk) formatting code included “0” as an exception, neither the zeroes nor the quoted text “**copy:**” appears on the label.

BX

1503

.A67

IRISH

v.1 (1912)

Send to desktop printer

x

1

Spine

Call Number Parsing Options

☐ Ex Libris parsing
 <parsed\_call\_number>

☒ SpineOMatic parsing
 <call\_number>

☒ Include holdings
 <issue\_level\_description>

☒ Include other value
 ~\*"copy: "<copy\_id>

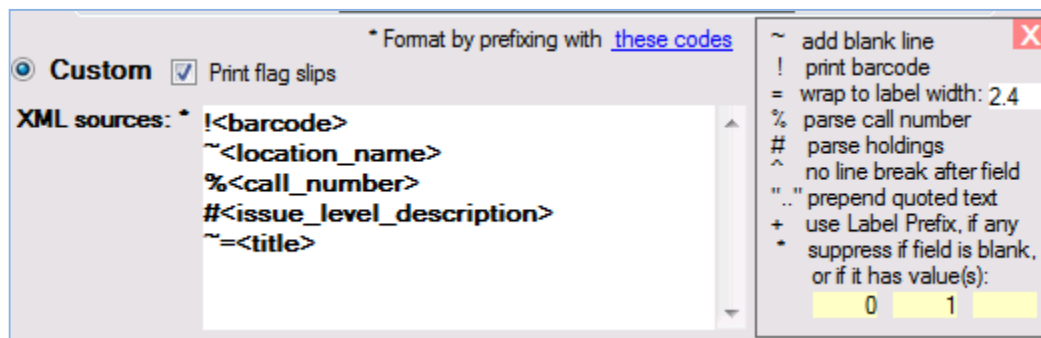
Tweak & Test

\*

## Custom Flag Slips

*Note: The **Flag slips** option was originally designed as a set of default values that printed slips for items that could not have adhesive labels attached, such as rare books or other archival materials. But you can change the delivered flag slips defaults and create any label you like. In effect, there are simply two kinds of user-defined custom labels: one that appears when the “Flag slips” option is checked, and the other that appears when it is unchecked.*

The default “Flag slips” XML sources are:



To use the flag slips option, scan items and store them in a batch for later printing.

“**SpineOMatic parsing**,” “**Custom**” and “**Print flag slips**” options must be selected in the Call Number Format panel prior to saving the items in the batch.

To print the slips, you must select the batch number in which they were stored, and again select the **Custom** label type and “**Print flag slips**” options in the Call Number Format panel. **When “Print flag slips” is checked, the printing defaults (margins, orientation, rows, columns, etc.) are changed to those required by the pre-defined flag slip format.** The “XML sources” also change to a set of values that are optimal for flag slip production. You can make changes to these settings to ensure that four slips print properly on your particular printer. These settings will be preserved when you print flag slips in the future.

**When “Print flag slips” is unchecked, the standard margin settings and XML sources are restored.**

Each slip is approximately 2.7” wide and 7” long. Four slips are printed in landscape mode on 8.5” by 11” paper, with vertical lines separating each slip. The slips are then cut along these lines for insertion into books.

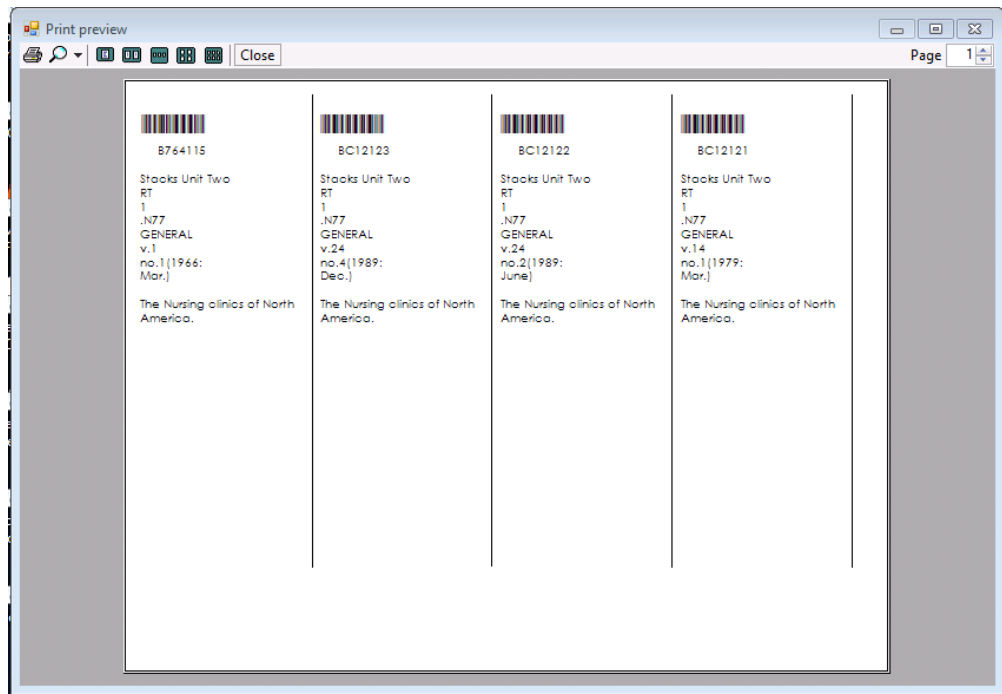
This example of a typical flag slip uses the **!<barcode>** element, which prints a barcode in the selected barcode font (due to the “!”). The text of the barcode is printed under the bar symbol.

The **~<library\_location>** is preceded by a blank line (due to the “~”), and that is followed by the **%<call\_number>** (parsed, due to the “%”), and holdings from **#<issue\_level\_description>**, parsed due to the “#”). Finally, the **~=<title>** of the item is



printed, again preceded by (~) a blank line, and wrapped (=) based on a 2.7” label width.

When you’re ready to print the slips, select the Batch, select **Custom**, check **Print flag slips**, and then **click the Preview/Print button**. You should see pages containing 4 flag slips in landscape format. After printing, the slips must be cut along the vertical lines and placed in the items.



## Pocket Label Sets

SpineOMatic produces pocket labels sets in standard OCLC SLB, SL4 and SL6 formats, or in a user-defined format. The standard formats produce one parsed spine label, and one or two pocket labels, either single- or double-spaced, displaying call number, author and title. Below are the standard formats, with links to the OCLC documents that define them.

[SLB](#): One pocket label, single spaced

[SL4](#): Two pocket labels, single spaced

[SL6](#): Two pocket labels, double spaced

The **user-defined** format prints one parsed spine label and one or two pocket labels containing up to four elements from the item's XML file. You can also specify the line spacing of each element.

Labels can be printed on continuous forms with a desktop printer, or stored in batches to be printed on multi-label laser printed sheets.

### Examples

SLB

QA 76.73 .J38 H674 2006	QA76.73 .J38 H674 2006 Horstmann, Cay S., Big Java /
-------------------------------------	--

SL4

QA 76.73 .J38 H674 2006	QA76.73 .J38 H674 2006 Horstmann, Cay S., Big Java /
	QA76.73 .J38 H674 2006 Horstmann, Cay S., Big Java /

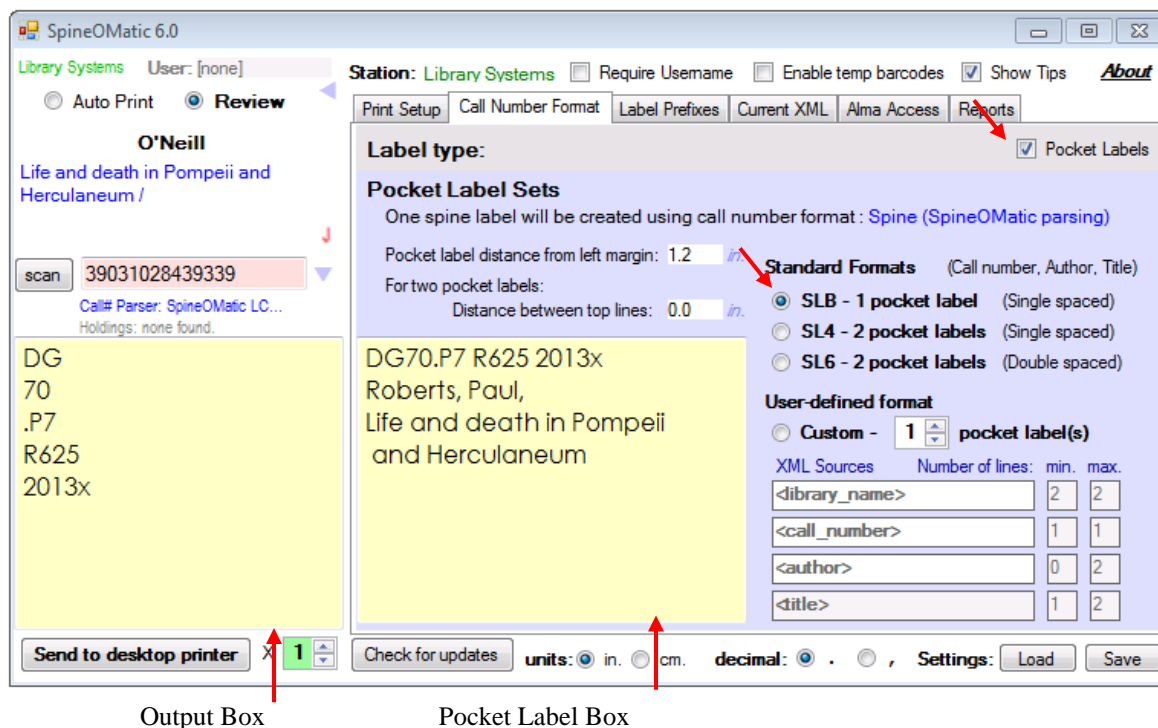
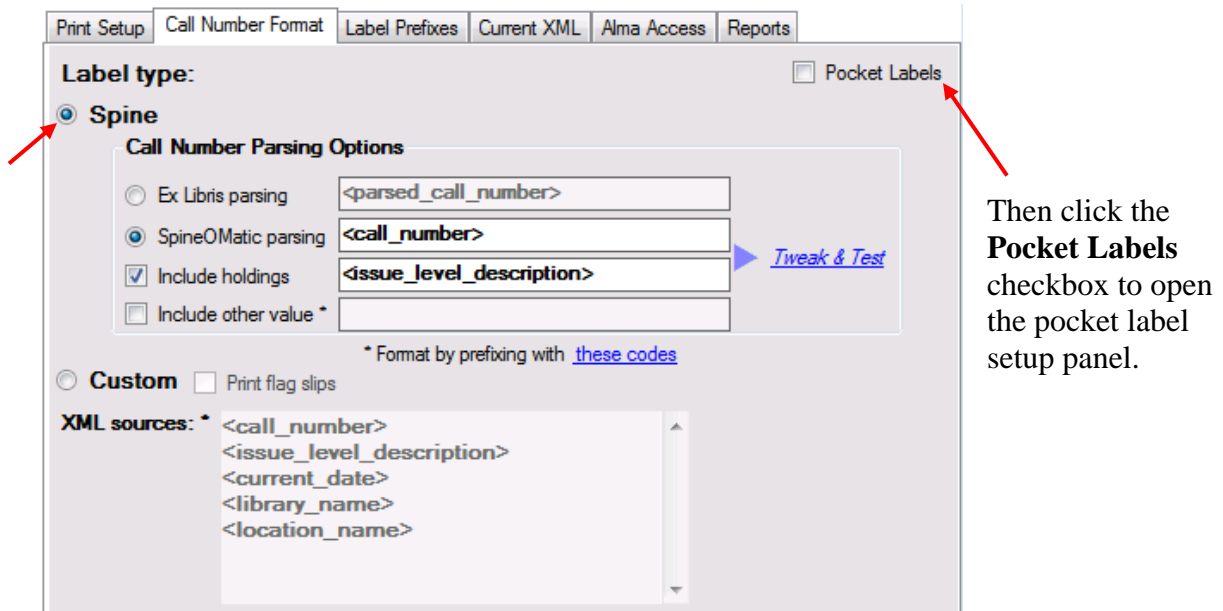
SL6

QA 76.73 .J38 H674 2006	QA76.73 .J38 H674 2006 Horstmann, Cay S., Big Java /
	QA76.73 .J38 H674 2006 Horstmann, Cay S., Big Java /

The user-defined pocket label option is described in detail following the print setup section below.

## Setup

In the Call Number Format panel, select the label type (**Spine** or **Custom**) that will be used to create the parsed call number that will be printed in the spine label portion of the pocket label set. In this example, SpineOMatic's label parsing will be used.



Select “SLB” to request one pocket label, single spaced.

To test the process, select “**Review**” mode, and scan a barcode number. A spine label will be parsed into the output box, and a pocket label of the type requested will be displayed in the pocket label box. The spine label and/or the pocket label can be edited, if necessary. *If you select a format that creates two pocket labels (such as SL4 or SL6), only one will appear in the pocket label box, but two will be printed.*

## Print Setup

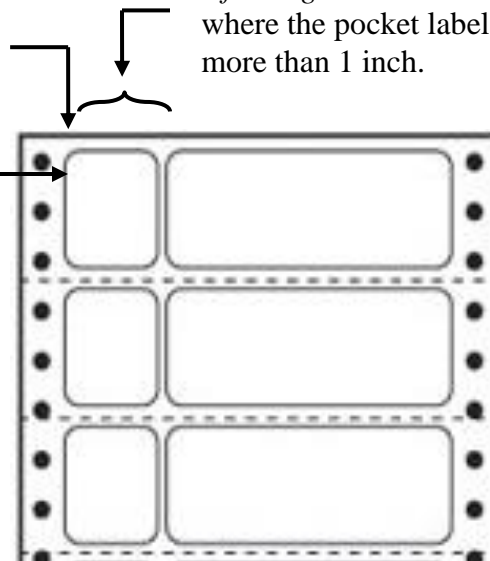
There are a couple of additional settings required when printing pocket labels, and a few points to keep in mind when setting up for batch printing.

When using a **desktop printer with continuous label stock**, the only extra settings are the “*Pocket label distance from left margin*,” and, if you’re printing two pocket labels, the vertical “*distance between top lines*” of the two labels.

On the **Print Setup** panel, the Left Margin is set so that the spine label prints at the desired location.

The Top Margin is where printing begins vertically.

On the **Pocket Label panel**, the “*Distance from left margin*” is the offset from the left margin where the pocket label text starts, usually slightly more than 1 inch.



For formats that print **two pocket labels**, this is the “*distance between top lines*.”

When printing a **batch** of labels to laser printer sheets, the **Label Height** and **Label Width** refer to one **entire pocket label set**. In this example, each **SL6** two-label set has a **Width** of 4” and a **Height** of 2.75”, marked with a dashed line in the illustration below.

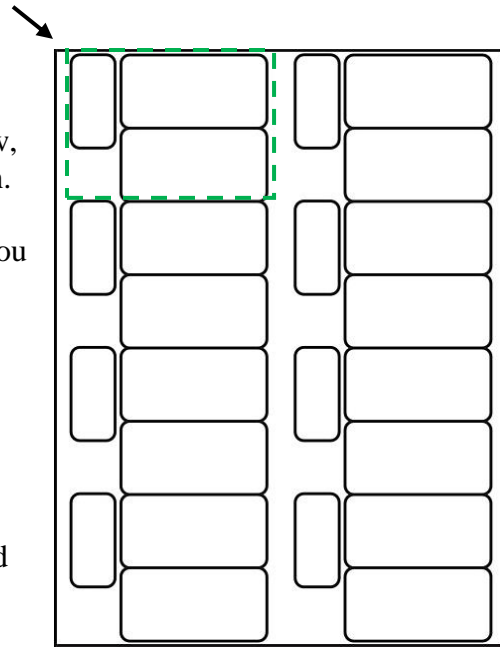
There are 4 **Rows** and 2 **Columns** of labels;

There is a 0.5” **Gap Width** between labels in each row,  
and a 0.0” **Gap Height** between labels in each column.

On the **Batch print** panel, these are the settings that you  
would enter:

Rows:	4	Label height:	2.75	Gap height:	0.0
Columns:	2	Label width:	4.0	Gap width:	0.5

Set the Top and Left Margins to begin printing in the  
Upper left corner of the first label, and set Orientation  
to Portrait. Use **Preview/Print** to verify the setup, and  
print the labels.





## User-defined Pocket Labels

If the elements displayed by the standard OCLC formats do not suit your needs, you can create a user-defined pocket label that can include up to four elements from the item XML file, and space them however you like.

In this example, a custom label has been selected that displays library name, call number, author and title. A single pocket label has been specified. Spacing is determined by the minimum and maximum number of lines that you specify for each element.

The screenshot shows the SpineOMatic 6.0 application window. The 'Review' tab is active, displaying a preview of a custom pocket label. The label text is: DG70.P7 R625 2013x, Roberts, Paul, Life and death in Pompeii and Herculaneum. The interface includes a 'Label type' dropdown set to 'Pocket Labels', a 'Pocket Label Sets' section with a 'Spine (SpineOMatic parsing)' format, and a 'User-defined format' section with a 'Custom' format. The 'Custom' format is configured with 1 pocket label(s) and XML sources for <library\_name>, <call\_number>, <author>, and <title> with specified minimum and maximum line counts. The 'Standard Formats' section shows options for SLB, SL4, and SL6 formats. The 'XML Sources' table is as follows:

XML Sources	Number of lines: min.	max.
<library_name>	2	2
<call_number>	1	1
<author>	0	2
<title>	1	2

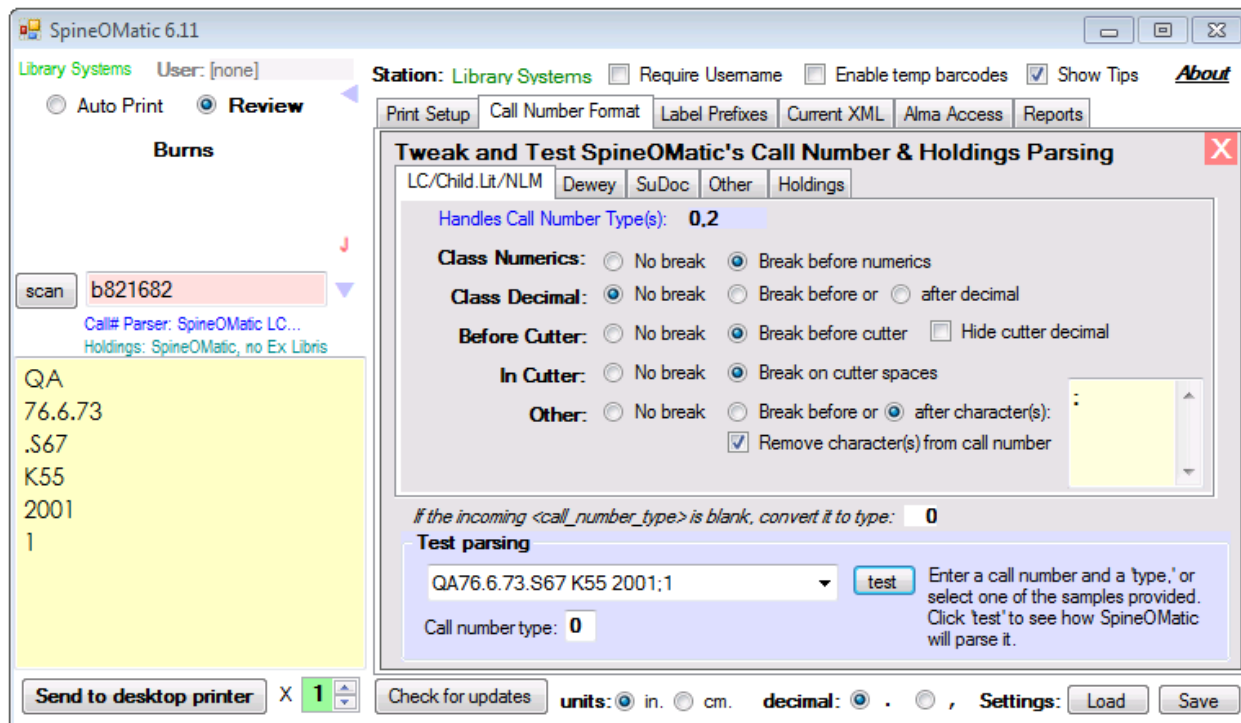
The number of pocket labels can be **1** or **2**, set by clicking the up/down counter. The number of lines of text created by each element is controlled by the “**min**” and “**max**” values. Note that for any format that prints two pocket labels, you must specify the “Distance between top lines” so that the second label begins printing at the top of the second label on the form.

**Minimums:** A minimum can be zero, meaning that no element will be printed if the element value is blank. If there had been no author in the **<author>** XML field shown above, the title would have printed directly under the call number. If the minimum is larger than the actual number of lines in the element, extra blank lines would be added to equal the minimum. A minimum of 1 means that one blank line will be displayed if the XML field is empty.

**Maximums:** The maximum number of lines must not be zero, and it must be greater than or equal to the minimum for that element. In the example above, no matter how many lines of text are in the title element, no more than two lines will be printed.

## Tweak and Test

If you use SpineOMatic parsing, you can customize the parsing behavior for several different types of call numbers, including **LC, LC Children's Literature and NLM, Dewey, SuDoc and Other**.



Each XML file retrieved from Alma has a **<call\_number\_type>** element. This “type” is used to determine the parsing routine that will be used to create the spine label.

You can specify the parsing routine that will handle each call number type. In the example above, the **LC/Child. Lit./NLM** routine will handle call number types **0** and **2**. Each parser allows you to enter one or more type codes in a comma-delimited list to specify which parser will handle the code(s).

In addition, if the **<call\_number\_type>** in the XML record is blank, you can convert it to any single code from **0** through **8**. In the example above, blank codes will be converted to type **0**.

Once you’ve specified the parser that will handle your call number type, you can “tweak” the parsing behavior by selecting the various options that produce a line break before or after certain parts of the call number.

### Test Parsing

In the **Test Parsing** window, you can enter your own **call number** and **type**, or you can select one of several different types from a drop-down list. In the example above, an LC call number has been selected from the drop-down list. (The bracketed class types that follow the call

numbers, such as “[LC]” or “[Dewey]”, are used in the dropdown examples only, and should not be typed if you enter your own call number.)

When you enter a call number type, the option panel will change to match the type of call number you’ve specified. In this case, the **LC/LC Child. Lit/NLM** parser has been selected. Click the “**test**” button to see how the sample call number will be parsed. *As you click the panel’s radio buttons, the resulting spine label will change automatically. This makes it easy to see instantly how the various options change the parsing behavior.*

In the example above, a line break will occur before the numeric portion of the class number. There is no break before the decimal, but there is a break before the cutter. Each space in the cutter will cause a line break. **Note: In v. 6.11, a break “...after decimal” option has been added, and incorrect behavior of the “Break before decimal” option has been corrected.**

Call numbers may sometimes contain odd characters that may have once had meaning in legacy cataloging systems but which are no longer appropriate. In this example, an unusual character (a semicolon) appears in the cutter. When creating the spine label, we want the semicolon to produce a line break, and then we want to remove the semicolon character. Putting the semicolon in the yellow box, selecting one of the Break options, and checking the “Remove characters(s) from call number” box fixes the semicolon problem. Any number of characters or phrases can be entered in the box by pressing Enter after each one.

## Dewey Parsing

Dewey decimal numbers can be formatted with the following options:

The screenshot shows a software dialog box titled "Tweak and Test SpineOMatic's Call Number & Holdings Parsing". At the top, there are tabs: "Print Setup", "Call Number Format", "Label Prefixes", "Current XML", "Alma Access", and "Reports". The "Call Number Format" tab is active. Below the tabs, there are sub-tabs: "LC/Child.Lit/NLM", "Dewey", "SuDoc", "Other", and "Holdings". The "Dewey" sub-tab is selected. The main area contains the following options:

- Handles Call Number Type(s):** 1
- Alpha Prefix:** ☐ No break ☒ Break after prefix
- Class:** ☐ No break ☒ Break before or ☐ after decimal
  - ☒ until after dec. digit # 4
  - ☒ 3 digits per line grouping
- Cutter:** ☐ No break ☒ Break on spaces
- Other:** ☐ No break ☐ Break before or ☒ after character(s):
  - ☐ Remove character(s) from call number

Below these options is a yellow text box containing a semicolon (;). At the bottom of the dialog, there is a text field with the value "658.9945 C245 2010/2 [Dewey]", a "test" button, and a "Call number type: 1" dropdown. A note at the bottom right says: "Enter a call number and a 'type,' or select one of the samples provided. Click 'test' to see how SpineOMatic will parse it."

658  
.9945  
C245  
2010/  
2

Using the settings above, call number **658.9945 C245 2010/2** will be parsed as shown at the left. The class number breaks before the decimal. A line break occurs after the slash ( / ) because the slash character has been added to the “Other” break list, and the “break after character(s)” option has been selected. You can add or remove characters or phrases from this list to suit your needs.

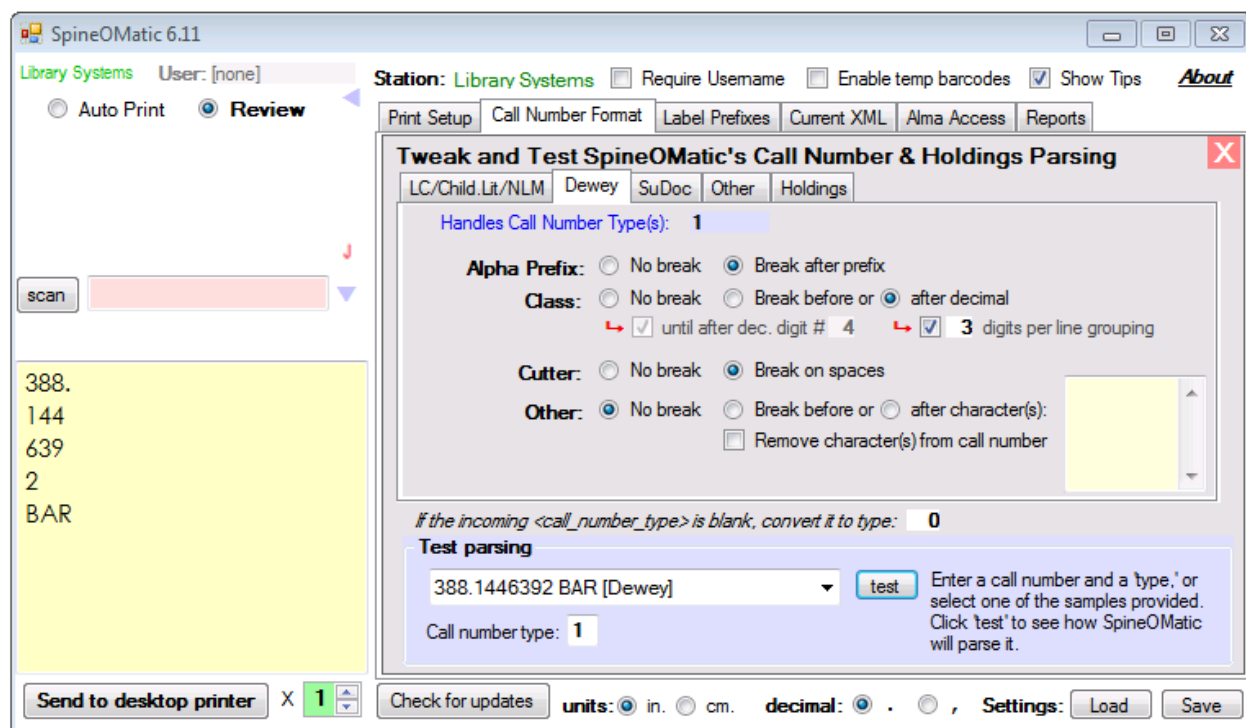
Call number **658.994 C245 2008 v. 4 pt. 2** will be parsed as shown at the right. Note that while “Break on spaces” in the cutter has been selected, the space inside the elements “v. 4” and “pt. 2” did not break. In general, spaces cause a break when they separate elements, while they are preserved if SpineOMatic thinks they are part of a single element.

658  
.994  
C245  
2008  
v. 4  
pt. 2

## Class Number Display Options

To accommodate the different ways in which libraries format Dewey spine labels, SpineOMatic provides some flexibility in breaking the class number and grouping the class digits.

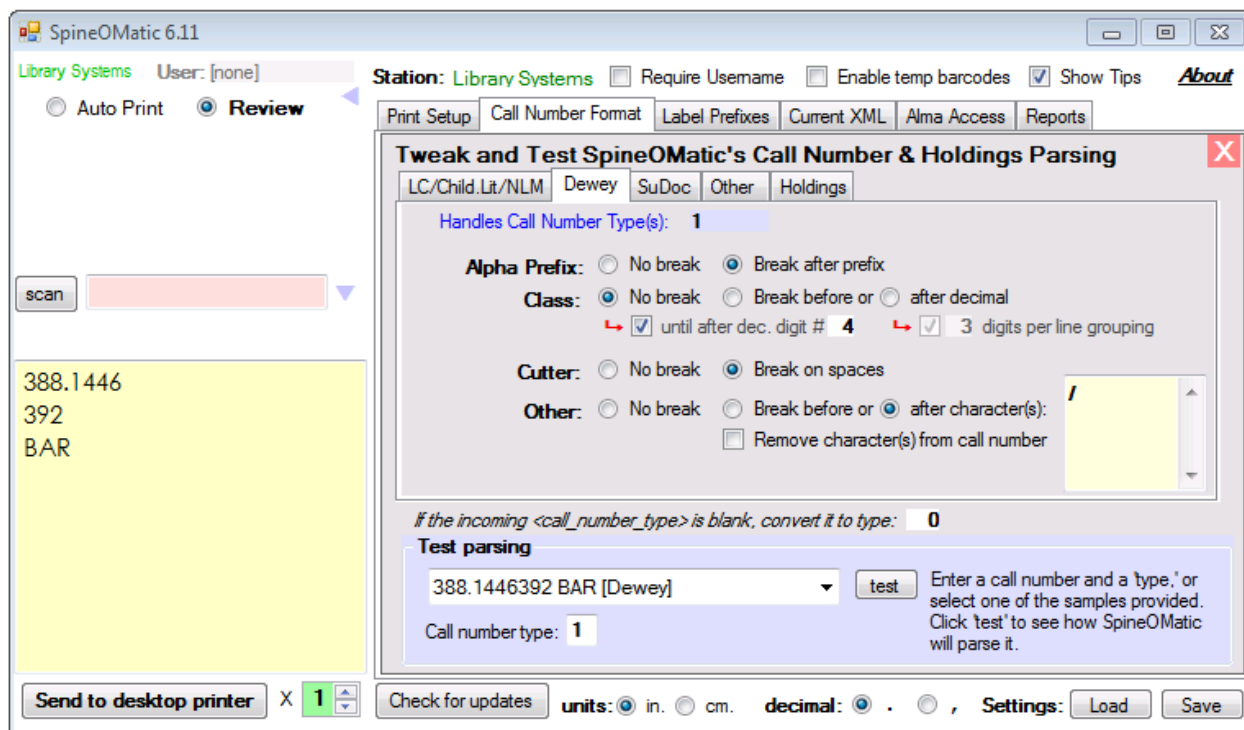
The **Digits per Line** option lets you to print long Dewey class numbers in fixed-length groups.



In this example, the long class number 388.1446392 has been broken into 3-digit segments to improve readability on the spine label. Enter a number between 2 and 7 in the “digits per line grouping” box to group the class digits accordingly. Note that this grouping applies only to digits

that follow the decimal point, and that the **Class:** *break after decimal* option must be selected. To turn off the feature, uncheck the “digits per line grouping” checkbox.

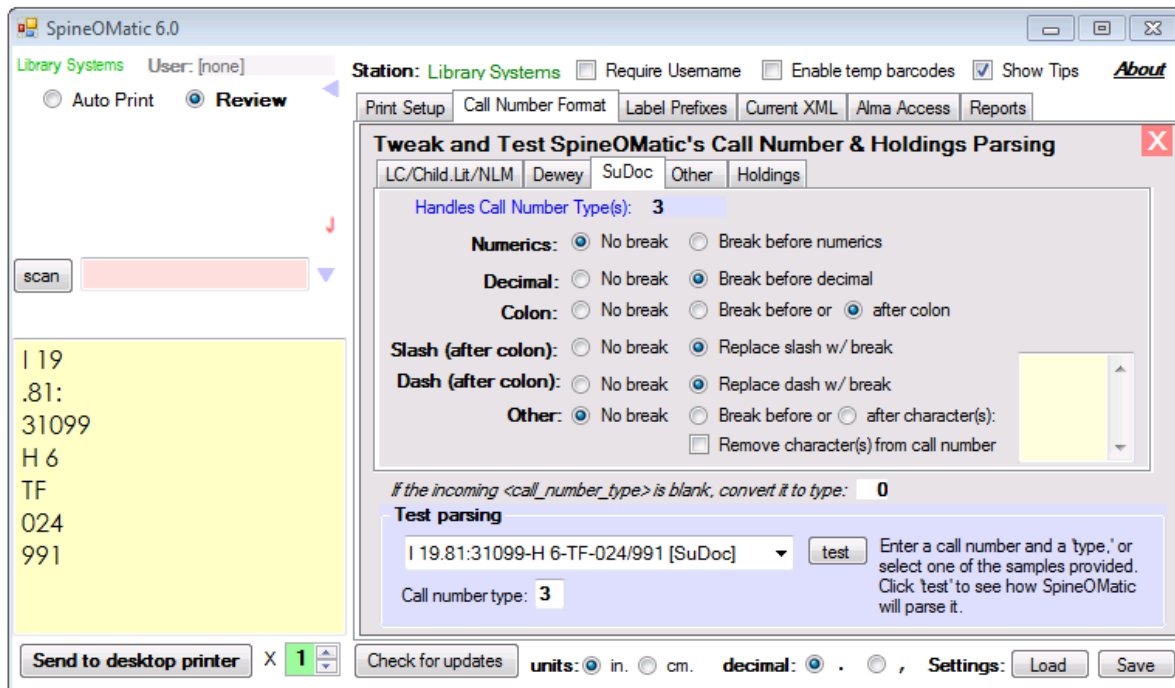
The **No break until after dec. digit** option does not break on the decimal point, but it does allow you to break the class number if the number of decimal digits exceeds a certain value.



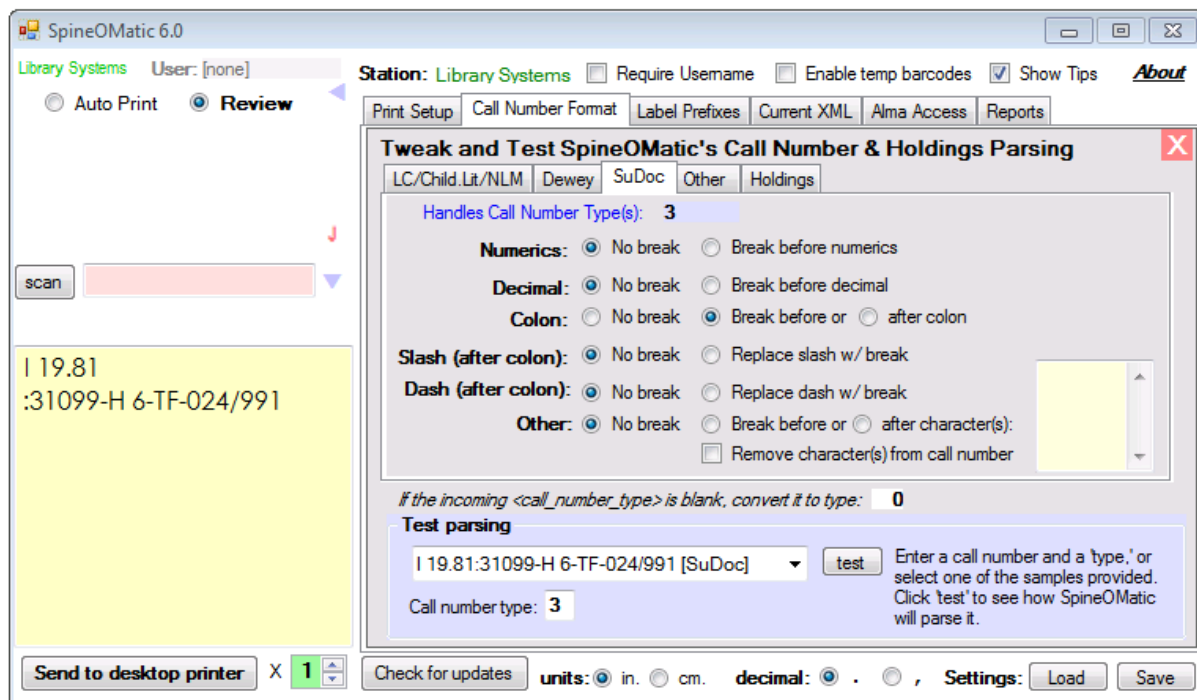
In example above, the “**No break**” option has been selected so that the call number will not break on the decimal point. But because the “**until after dec. digit**” option has been checked, the call number will break if there are more than (in this example) **4** decimal digits in the call number. The value entered can range from 2 through 7. Any remaining digits are printed on the next line.

## SuDoc Parsing

This example demonstrates how a SuDoc number might be parsed for labels printed in Portrait mode, where horizontal space on the label is at a premium.



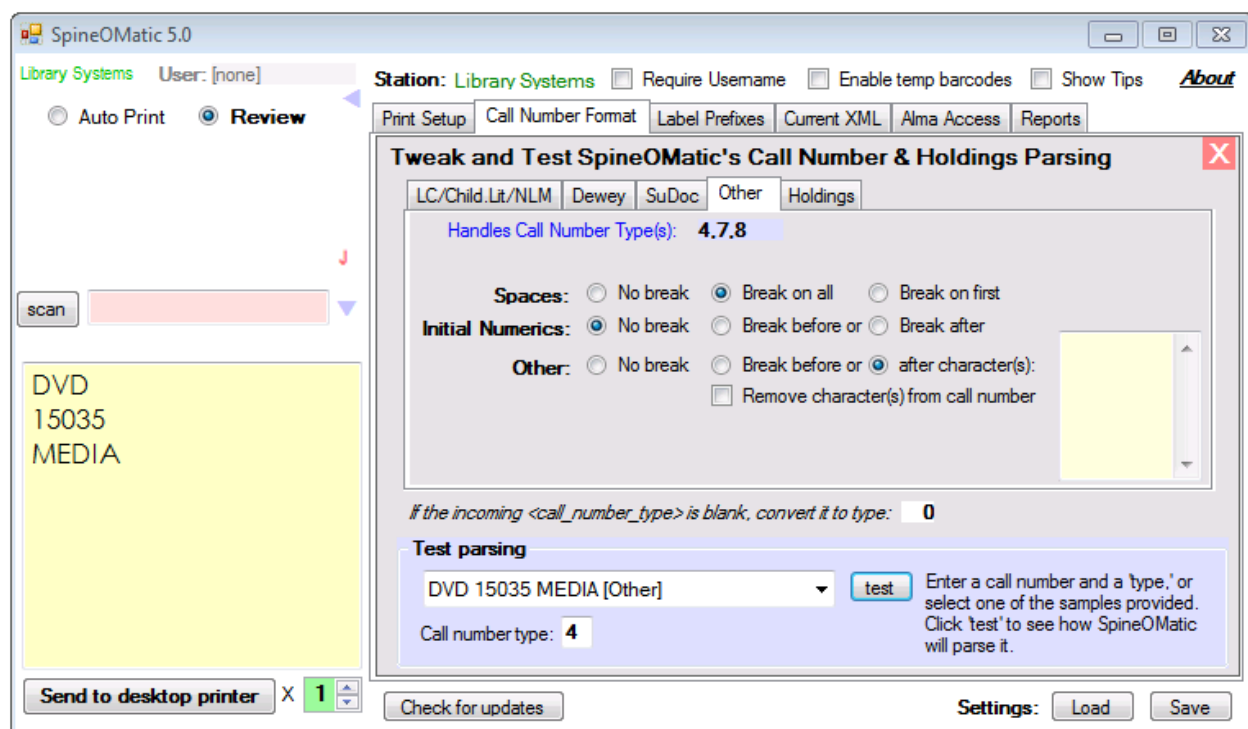
In the example below, the settings are more suited to labels printed in Landscape orientation. The colon break has also been changed from “after” to “before,” placing the colon at the start of the second line, rather than at the end of the first.



An “other” box allows you to break the call number before or after arbitrary characters or strings of characters, as well as having the option to remove those characters entirely.

## Other Parsing Scheme

Other cataloging schemes unique to specific libraries and collections may be handled by the “Other” parsing routine. In this example, you have specified that an item returning a `<call_number_type>` of **4**, **7** or **8** in the XML record will use the Other parsing scheme. In the example below, a DVD collection has elements of the call number separated by spaces. Selecting the “Break on all” option for **Spaces** formats the spine label as shown below.



You may break on other characters or words by placing them in the Other break list box.

The control offered by this parsing routine is limited. If you have special requirements, let me know and I may be able to add functionality to accommodate your unique scheme.



## Holdings Parser

The way the holdings statement in the <issue\_level\_description> field is parsed can also be changed. If you use Ex Libris' parsed holdings field (<parsed\_issue\_level\_description>), the SpineOMatic Holdings parser will not be used **unless** the Ex Libris parsed holdings are not in the item's XML. In that case, SpineOMatic will parse the <issue\_level\_description> field instead.

Print Setup Call Number Format Label Prefixes Current XML Alma Access Reports

**Tweak and Test SpineOMatic's Call Number & Holdings Parsing**

LC/Child.Lit./NLM Dewey SuDoc Other Holdings

☒ Break on "(" in long lines

☒ Break on colon... ☒ ...but leave it visible inside parentheses

☐ Break on spaces between elements

☐ No other breaks ☐ Break before or ☒ after character(s): Vol.~

☐ Remove character(s) from holdings

\*Use tildes (~) to include leading or trailing spaces.

If the incoming <call\_number\_type> is blank, convert it to type: 0

**Test parsing**

Enter a call number and a 'type,' or select one of the samples provided. Click 'test' to see how SpineOMatic will parse it.

Call number type: 0

The default parsing behavior is shown above, which breaks on open parentheses if the holdings statement is too long to fit on the label. It also breaks on a colon, which is hidden on the label unless the colon occurs inside the parentheses.

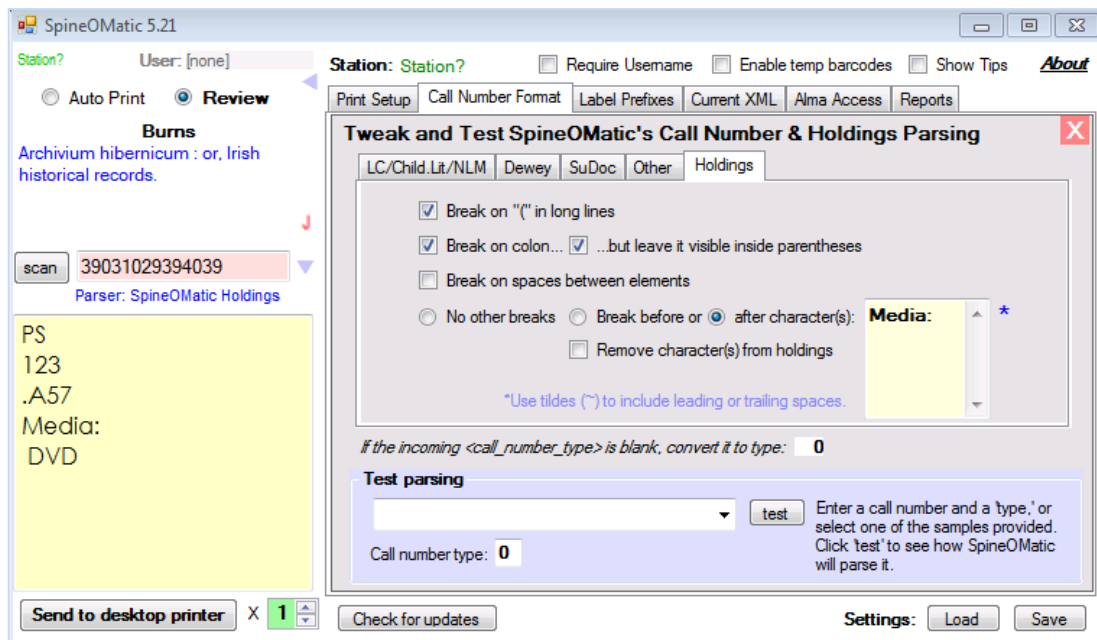
The parser can also break on spaces between elements in the holdings statement. Some spaces are not “breakable.” In a holdings statement such as “v. 104 no. 12014 Winter”, the spaces between “v.” and “104”, and between “no.” and “12014” are not considered breakable, because they occur within elements. Spaces between “v. 104”, “no. 12014” and “Winter” are breakable. If the “**Break on spaces between elements**” box is checked, each of these elements appears on a separate line.

You can also break the holdings statement before or after any character or phrase, and optionally remove elements from the holdings display by entering the characters or phrases, one per line, in the yellow text box.

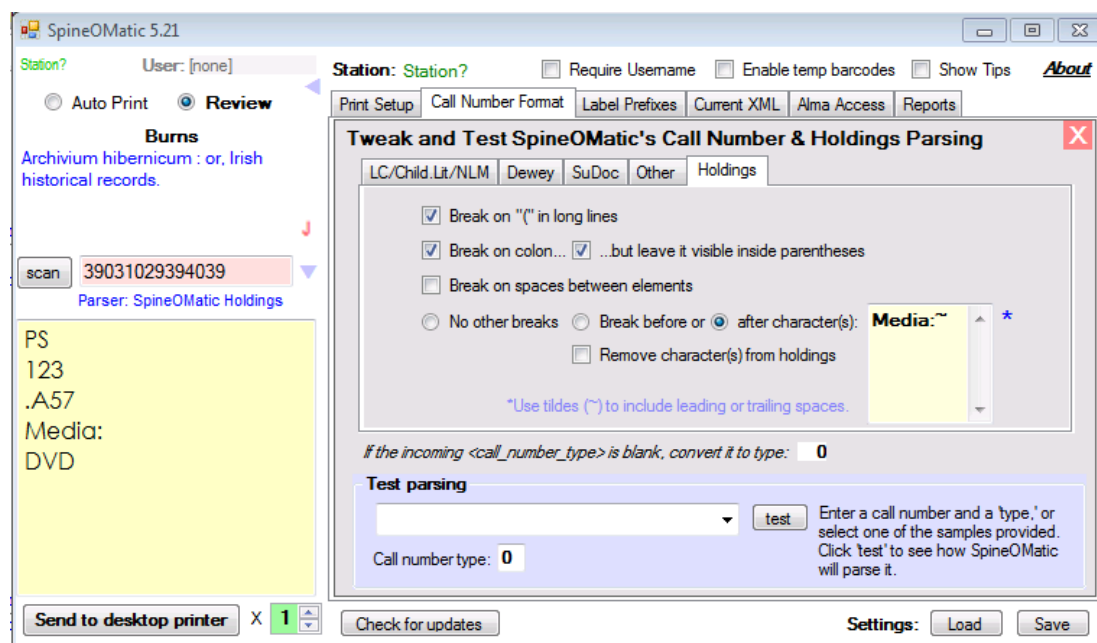
*Note that “Test parsing” works for call numbers only. To test the holdings parser, you will need to call up an actual item to see how the holdings statement will be parsed.*



To allow more flexibility in the way holdings are parsed, a tilde (~) can ensure that leading or trailing spaces are included when SpineOMatic is determining where a break occurs. For example, in the (fictitious) holdings statement “Media: DVD”, you might want Media to appear on one line and DVD to appear on the following line. This is accomplished by typing the word “Media:” in the Holdings break list, and selecting a break “after character(s):”



SpineOMatic breaks after the word “Media:,” but the space between “Media:” and “DVD” appears in front of “DVD.” By adding a tilde (“Media:~”), the space is considered part of the word “Media “, and “DVD” appears without a leading space:



## Label Prefixes Panel

The combination of <library\_name> and <library\_location> specify where a book is shelved. Items that are not shelved in the general stacks area may require a **Label Prefix** to appear above the spine label to indicate the collection name or shelving location.

The **Label Prefix table** allows SpineOMatic to tell when an item in Alma requires additional text above the call number to identify the item as being shelved in **Reference, Media, Oversize** or other special location.

A master table may be kept on your server to ensure that all workstations are using the same table. This is useful when changes need to be made, and all workstations need to obtain an up-to-date copy of the file. If you choose to do so, you can provide a URL to your own directory (such as "http://myserver.xxx.edu/somefolder") in the "Use system file, URL:" box below. When SpineOMatic starts, the server is contacted and the "aboveLabel.txt" file in that directory is downloaded to the workstation. You can also download the file at any time by clicking the "Download" button.

Print Setup | Call Number Format | **Label Prefixes** | Current XML | Alma Access | Reports

**Label Prefixes**

☒ Use local file  
☐ Use system file, URL:

Download

Enter: Library Name+Location Name=Label Text

Add

Change

Delete

Cancel

Save Changes

Double click an entry to change or delete

Show: All Libraries

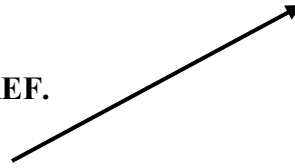
Library source: <library\_name> Location source: <location\_name>

Alternatively, you can use a **local file** that is kept and maintained on each PC that performs labeling. The local file is named "**myLabelText.txt**". When you select the **Use local file** option an editor appears that allows you to add, change and delete entries into your local table. When creating an entry, the library name must be followed by a plus sign (+). The library location name must follow. (*The text found in the <library\_name> and <library\_location> elements must be spelled exactly as they appear in the Alma XML file.*) The location must be followed by an equal sign (=), and then the label text that is to appear above the spine label follows. A **semicolon** in the label text will produce a line break in the label.

For example, if a book was in the **O’Neill** library and shelved in the “**System’s Office Reference**” location, it would be necessary for the shelf label to display “**SYS REF**” above the call number. If this entry was in the **Label Prefix** table:

**O’Neill+System’s Office Reference=SYS.;REF.**

the shelf label created would appear like this:



SYS.  
REF.  
QA  
76.73  
.S67  
K55  
2001

Note that the semicolon in **SYS;REF** produced a line break in the label.

## Creating the Label Prefix Table

*When the “Use system file” option is selected, users cannot edit the table at their workstations. The editing buttons and input box are not displayed.*

- When building the table you can **create new entries** by typing them in the yellow input box. Make sure the values are separated by **+** and **=**. Click the Add button to add the new entry to the table. (The entries are always displayed in alphabetical order.)
- To **change an existing entry**, double click the entry. It will be moved into the yellow input box, where you can make changes. Click the Change button to replace the original entry.
- To **delete an entry**, double click the offending entry and click the Delete button.

Be sure to click the **Save Changes** button when you’re done. This writes the updated **myLabelText.txt** file to your workstation.

Once the “**myLabelText.txt**” file has been created, you can copy it to other SpineOMatic workstations. It must be placed in SpineOMatic’s installation directory (usually “C:\spine”).

## Putting The Label Prefix File on a Server

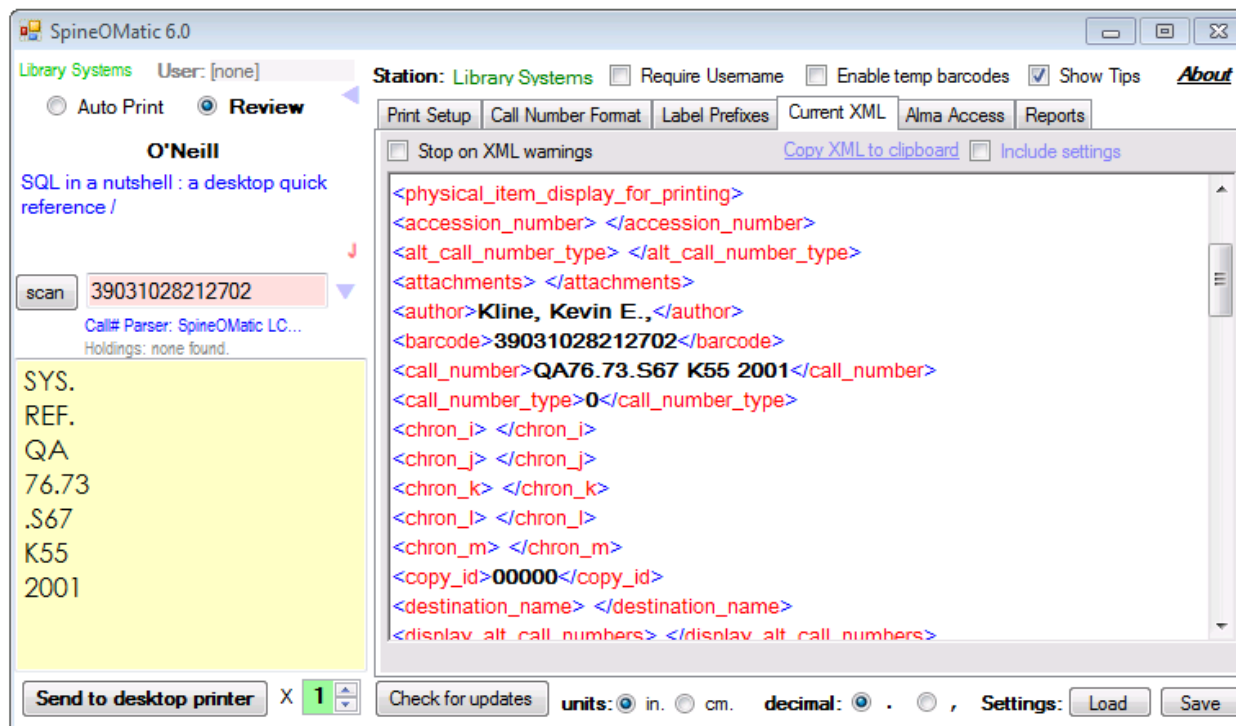
Instead of distributing the file to all users individually, once you have created your **myLabelText.txt** file you can place it in a Web directory. The advantage is that each time a user starts SpineOMatic the current file will be downloaded to their workstation automatically.

**When the file is placed on the Web, it must be renamed to “aboveLabel.txt”.** The text box labeled “**Use system file, URL:**” must be filled in with a valid *http://* address that points to the web directory containing the “**aboveLabel.txt**” file.

## Current XML Panel

The Current XML panel displays the Alma item XML file that was last downloaded. This is useful for debugging, or in determining which data elements are available for use in SpineOMatic.

This panel also displays SpineOMatic's settings. Immediately after startup, or whenever the Settings: “**Load**” button is clicked, the XML display changes to show the settings file. If a barcode number is retrieved from Alma, the display changes to the Alma item XML record.



The panel above shows the current XML of an item retrieved from Alma using call number **39031028212702**. A spine label has been created, and the label prefix “SYS.;REF.” has been added to the label.

## **Copy to Clipboard**

The XML text visible in the panel can be copied to the Windows clipboard by clicking the “Copy XML to clipboard” link. After copying, you can go to any Windows text processing or E-Mail program and paste in the XML text by right-clicking and selecting “paste.” If you click the “Include settings” box, the text in the “settings.som” file will be appended to the XML text during the copy. These functions are handy for troubleshooting SpineOMatic problems that may be related to the incoming XML data or to settings issues.

## Alma Access Panel

To get the XML label file, a barcode number must be sent to Alma via the *Ex Libris Label Printing Web Service*. SpineOMatic provides two ways to contact this service: with a **Java desktop** application that is loaded and run on the individual workstation, or a **java servlet** installed on a server that all workstations can use. *Only the desktop application is included with SpineOMatic. Those wishing to use the java servlet method can contact me directly for the code.*

In the **Alma Access** panel, make sure the "Use Desktop Java App" option is selected. You must also fill in the **User Name** and **Password** of an account that is authorized in Alma to retrieve items from the Label Printing Web Service. You must create this account, if one does not already exist, and assign it the roles of "API Label Printing Read" and "API Resource Management Read." Ex Libris provides the **Alma URL** and your **Institution Code**.

Print Setup Call Number Format Label Prefixes Current XML **Alma Access** Reports

☒ **Use Desktop Java App**

**Label Printing Web Service Credentials**

Ex Libris provides:

Alma URL:

Institution Code:

Your Alma Web Service account:

User Name:

Password:

☐ **Use Servlet, URL:**

**Check for Java**

to see if java is installed on your computer and is available for use.

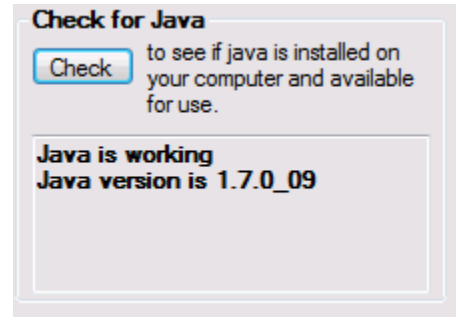
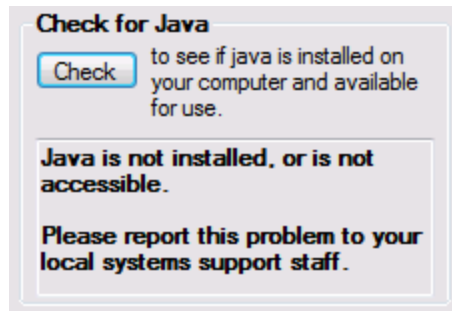
These credentials will be used to contact the Ex Libris server and return an Alma item XML file for the requested barcode number. The XML file will be dropped into SpineOMatic's installation folder, but it will be deleted immediately after it arrives.

When you update SpineOMatic to a new version, any updates to the Java apps will be downloaded automatically.

## **Diagnosing Authentication or Connection Problems**

Java must be installed on each workstation, and SpineOMatic must be able to access it in order to retrieve the Alma files. Click the "Check for Java" button to ensure that Java is working on your computer.

You should see a message confirming that Java is working, along with the java version that is currently installed on your computer.



If SpineOMatic cannot find or access java, a message will appear indicating that there is a problem.

## Web Credential Problems

If the Web Service Credentials are not correct, no XML file will be returned from Alma, but the **Current XML** panel will display a detailed error message. SpineOMatic will also display some identifiable errors in the Output Box. These include:

**“Can't connect to Alma -- Java: credentials unauthorized.”** This means that the User Name, Password, or Institution Code are incorrect. Correct the settings, and click **“Save”** to save the credentials.

**“Can't connect to Alma -- Java: Check Alma URL.”** This means that the Ex Libris Alma URL is incorrect, or network access is not available. Correct the URL, if necessary, and click **“Save”** to save the URL

## Reports Panel

*These beta-version reports are very rudimentary, and serve primarily to put data collection functionality in place that will be expanded in a production release.*

The Reports panel allows you to run some basic activity reports for the labeling done on an individual workstation. SpineOMatic keeps an activity log in the installation directory (typically “C:\spine”) called “**activity\_log.txt**,” which it uses to create the reports. It is recommended that you check “Require username” in the **Call Number Format** panel to ensure that individual users can be reflected in the detailed reports.

The screenshot shows the 'Reports' tab in the SpineOMatic application. The 'Activity Reports' section is active, with a 'Beta' label. The report is configured with the following settings:

- From:** 8/ 1/2013
- to:** 10/31/2013
- Sort by:** Count (selected), Alpha (unselected)
- By:** By User (unselected), By Library (unselected), By Location (selected)
- Details (filtered by):** (empty text box)
- Include scanned and printed:** (checked box)
- Run:** (button)

The report header indicates: "SpineOMatic Labeling Activity Report – From 8/1/2013 8:36:42 AM to 10/31/2013 – Station: Library Systems" and "Total labels printed in date range: 162 – Lines in this report: 10".

Count	Location
54	Stacks Unit Four
40	Stacks (STACK)
40	System's Office Reference
7	Room 114
6	Stacks No Loan
5	Current Periodicals
4	Reference No Loan
3	Art Stacks

A "Copy to clipboard" link is located at the bottom of the report area.

In the sample report above, a date range has been specified and report by shelving location has been selected. The report has been sorted by count, with the highest number displaying first. Because the “Include scanned and printed” box has been checked, any label that was actually printed, or any barcode that was scanned but not printed are included in the report. To ignore barcodes that have merely been scanned, uncheck this box. The “Station” name, Library Systems, is part of the report header.

In the report below, a detailed report by Date and Time has been selected. Only labels that were actually printed (not merely scanned) are included. The report has been filtered by the word “O’Neill,” so only records containing that word are included. **(This match is case-sensitive.)**

To print reports, click the “Copy to clipboard” link, open any Windows program (such as Word, etc.), paste in the text, and print.



Print Setup Call Number Format Label Prefixes Current XML Alma Access Reports

**Activity Reports** Beta

From  to

☐ By User  
☐ By Library  
☐ By Location

Sort by: ☒ Count ☐ Alpha

--- Sorted by date/time ---

☒ Details (filtered by:)   
☐ Include scanned and printed

SpineOMatic Labeling Activity Report -- From 8/1/2013 8:36:42 AM to 9/30/2013 -- Station: Library Systems  
 Total labels printed in date range: 93 -- Lines in this report: 93

No filter

Date & Time	User	Barcode	Library	Location
8/27/2013 13:33:31	[none]	39031028212702	O'Neill	System's Office Reference
8/27/2013 13:33:45	[none]	39031030887830	O'Neill	System's Office Reference
8/28/2013 13:33:31	[none]	39031028212702	O'Neill	System's Office Reference
8/28/2013 13:33:45	[none]	39031030887830	O'Neill	System's Office Reference
9/11/2013 10:54:36	[none]	B821682	Burns	Stacks Unit Four
9/11/2013 10:59:17	[none]	b821682	Burns	Stacks Unit Four

[Copy to clipboard](#)

The “**activity\_log.txt**” file that contains all activity data is a tab delimited file that you can read into Excel, and create new reports, charges and graphs, etc.

The tab delimited file contains the following information:

Field# Value

- 1 Date in yyyyymmdd format
- 2 Time in HHmmss format (24 hr. time)
- 3 Station Name
- 4 User ID
- 5 Barcode number
- 6 Parser in use – ExL = Ex Libris; SoM = SpineOMatic
- 7 Call Number Type (from Alma XML) (space or 0 – 8), or dash(-) if error was returned
- 8 Result: OK if Alma XML file was returned; otherwise “Bad barcode” or “Bad credentials”, depending on the reason nothing was returned
- 9 Library Name
- 10 Shelving location
- 11 S if barcode was scanned only; P if spine label was printed

## SpineOMatic Settings

When SpineOMatic starts, it loads the current settings file. This file is in the SpineOMatic folder as “settings.som.” If no settings file is found, SpineOMatic will alert you to that fact, and default settings will be created. You will need to select a printer type, printer name, font type and size, margins for print, and several other settings in order for SpineOMatic to render labels as you would like.

You can click the **Settings:** “Save” button at any time to save the current settings. You can then make additional changes, and as long as you don’t “Save” them, you can always recall the original settings by clicking the **Settings:** “Load” button. Once you “Save”, earlier settings are overwritten.

Changes made to any of the settings in SpineOMatic take effect immediately, without having to “Save”. This lets you try out various settings, while always being able to “Load” the previous settings.

When you close SpineOMatic, you will be notified if you have changed any settings without saving them. You will have the option to save the settings or to close the program without saving.

7/8/2015

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# Appendix

## Printer type: Label Printer via FTP

This printing option was created in order to use an industrial thermal label printer, the CAB A4+. It communicates over an Ethernet connection, and has an internal FTP server which allows command files to be downloaded into the printer from any workstation in the library.

Briefly, SpineOMatic creates a text file that configures the printer to print each line of the spine label in a specified position, font, and font size. The commands are coded in “Jscript,” a formatting language that is recognized by many CAB (and some other) printers of this type.

To get the printer to print a label, several lines of code must be generated, with one line of code required for each line of the label. These lines are inserted into another block of code that is the same for each label. In the example below, the lines starting with “T” are called “LABELTEXT” in SpineOMatic, and are generated for each label. The lines before and after are unchanged, and are called “Label format commands” in SpineOMatic.

The file that prints the call number “**HT 1419 .A5 C318 2011**” is shown below.

M 1 fnt;gothic.ttf	select internal Century Gothic font
m m	dimensions are in millimeters
J	Job start
H 100	Heat (Speed) setting (100mm/sec)
S 11;1,0,37,41,25	Size of the Label
O R	Orientation Rotated by 180°
T 5,6,0,8,pt12;HT	Text "HT" font:#8, 12 pt, 5mm left, 6mm down
T 5,11,0,8,pt12;1419	Text "1419" font:#8, 12 pt, 5mm left, 11mm down
T 5,16,0,8,pt12;.A5	Text ".A5" font:#8, 12 pt, 5mm left, 16mm down
T 5,21,0,8,pt12;C319	Text "C318" font:#8, 12 pt, 5mm left, 21mm down
T 5,26,0,8,pt12;2012	Text "2011" font:#8, 12 pt, 5mm left, 26mm down
A 1	Number of labels to print (1)

For each label, SpineOMatic creates the #LABELTEXT#, and inserts those lines into the Label Format Commands at the point indicated on the configuration screen (below).

This combined block of text is written to a file on the workstation called **labelout.txt**.

SpineOMatic then shells to the batch file **ftpbat.bat**, sending IP address of the printer in parameter %1. This file starts an ftp session, using the commands in “sendlabel.txt” and the IP address in %1 to log in to the printer’s FTP server:

```
@echo OFF
ftp -s:C:\spine\sendlabel.txt %1
```

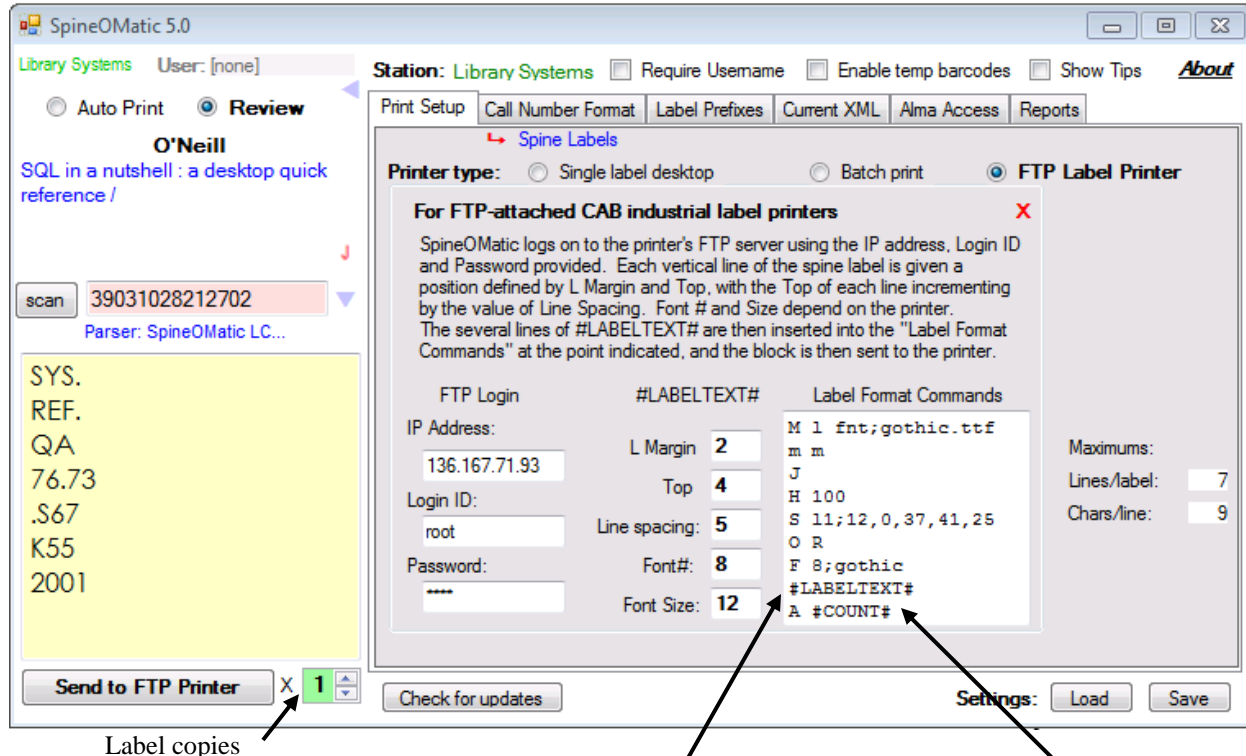
The “sendlabel.txt” file contains these commands:

```

root
1234
put C:\spine\labelout.txt /execute/labelout.txt
quit

```

where “root” is the login ID of the CAB printer’s FTP server, and 1234 is the password. The file containing the printer commands (labelout.txt) is transferred to the printer’s “execute” directory, which causes the printer to execute the JScript commands and print the label.



For each line of the label to be printed, the #LABELTEXT# is inserted into the Label Format Commands at the point indicated. The combined file is called “**labelout.txt**.” The **count** is also inserted into the printer commands. This number is obtained from the **label copies** value in the user interface.

The batch file **ftpbat.bat** logs into the printer’s FTP server using the FTP Login values.

The labelout.txt file is then transferred via FTP into the printer’s execute directory, which causes the printer to examine the file and execute the commands that print the label.

The setup options for using this printing method allow changing the IP address, login ID and password, as well as certain parameters of the JScript command file, such as line spacing, margins and the like.

While cumbersome to explain, the process is invisible and quick, and the printer prints the spine label in less than a second.

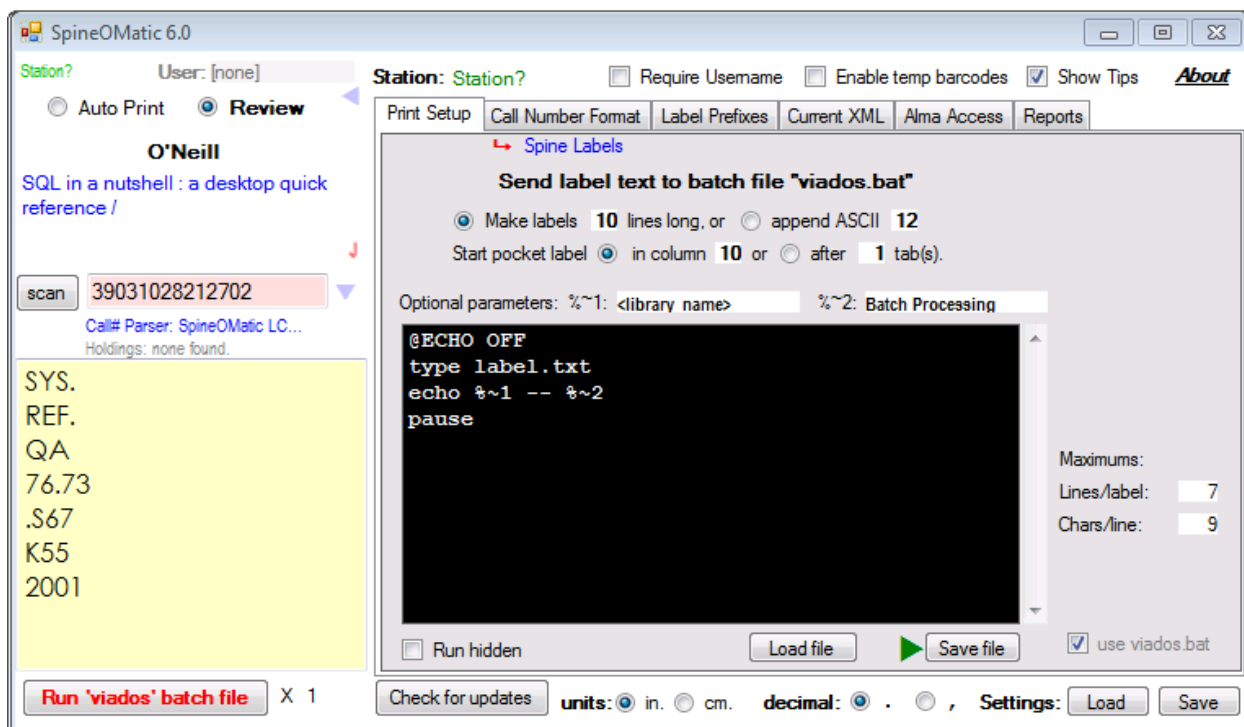
## The “viados.bat” Option



Batch files in Windows harken back to the days of DOS, and can perform a wide variety of tasks, including creating files, running programs, accessing LPT and COM ports, sending text to printers, and many other functions.

Usually when you scan a barcode number and create a spine label, SpineOMatic sends the label text to a desktop or laser printer. But when you select the “**use viados.bat**” option, the label text is written to a disk file (“label.txt”), and a batch file that you create (“viados.bat”) is then started. This batch file can process the label text any way you like, including sending it to a legacy printer that may need to be controlled directly through an LPT port, for example, rather than through Windows. To take full advantage of this feature will require a detailed knowledge of batch files.

To use the **viados** option, click the “**use viados**” checkbox. An edit window appears that displays the current viados.bat batch file, along with some additional controls that allow you to customize its behavior. (You needn’t use this edit window. You can create a batch file with any text editor, name it “viados.bat,” and save it to SpineOMatic’s installation directory.)



In the example above, a barcode number has been scanned, and the label text appears in the Output Box. Clicking the “**Run ‘viados’ batch file**” button sends this text to a file called “label.txt” and then starts the batch file that appears in the edit window. You can edit the batch file in the window, and then click “Save file” to write it to SpineOMatic’s installation directory.

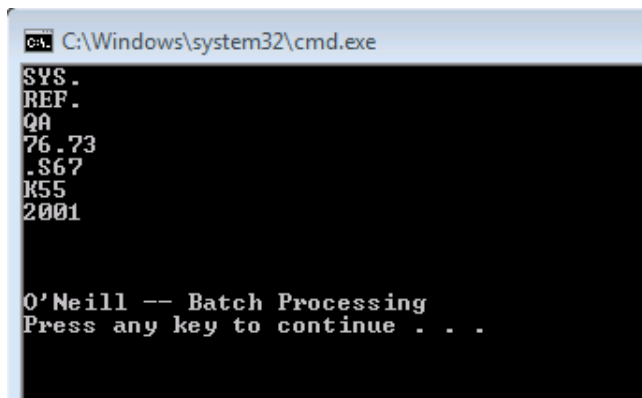
The “Load file” button will read in the current “viados.bat” file from the directory and display it in the edit window.

One of the editor’s options lets you ensure that each label sent to the “label.txt” file is the same number of lines long, which may be useful when sending the text to a dot-matrix printer using fixed-length labels. In this example, each label will be padded with blank lines to make the label 10 lines long. To prevent any padding, set this value to 0. Instead of this padding, an ASCII value can be appended to the text. The value “12” causes the printer to eject a page, but any code can be appended.

For dot-matrix printers connected via an LPT port, spacing is not measured in fractions of an inch, but rather by a discrete numbers of spaces. The horizontal position of a pocket label, for example, must be set by either a specific number of columns (10 in this example), or by one or more tabs, if the printer is configured to recognize them and space accordingly.

Batch files can accept parameters, and SpineOMatic lets you send up to two of them. The batch file can access these as %~1 and %~2. (The tilde allows spaces to appear within a parameter. Without the tilde, the batch file uses spaces to delimit the parameters.) You can pass either a string of plain text, such as “**Batch processing**,” or the value of an XML element, such as <library\_name> (“O’Neill”) in the example above.

When the batch file runs, this output is produced:



```
C:\Windows\system32\cmd.exe
SYS.
REF.
QA
76.73
.367
K55
2001

O'Neill -- Batch Processing
Press any key to continue . . .
```

The “**type**” batch command types the contents of a file. In this case, the batch file types the contents of the label.txt file. SpineOMatic added three lines to the seven lines of the label text in order to make the total 10 lines, as requested.

This window appears because the “pause” command keeps the process from terminating until a key is pressed, and because “Run hidden” is not checked. Without the “pause,” the window will be visible as a flash on the screen. When “Run hidden” is checked, nothing will appear.

**Important note about “Run hidden:”** The batch file must not request user input when the “Run hidden” box is checked. If the batch file window is hidden, the user will not be able to provide the required input, and the “cmd.exe” process in Windows will run without terminating. To prevent this from happening, **SpineOMatic will not run a batch file in hidden mode if the file**

contains the “pause” or the “PathName” command. These commands require the user to “Press any key to continue . . .”, or to enter a value, respectively. If you need to use these commands, do not check the “Run hidden” checkbox.

-end-