

BARCODE PRINTING

Barcode Printing takes your museum to the next level of inventory control and tracking. Barcoding is a proven technology that can eliminate keyboard data entry errors. There are many possible applications in the museum setting for using barcodes, from artifact identification and tracking to inventory control.

You can also print the POSTNET format and Intelligent Mail barcodes used by the US Postal Service to encode ZIP Code information for automatic mail sorting. Devised exclusively for use by the United States Post Office, these formats encode the 9-digit ZIP Code plus additional carrier and tracking information. These barcode formats may be used when printing Contact labels and envelopes.

The Barcode Printing option may be purchased for an additional cost. You will receive a CD that you will use to activate this feature.

INSTALL AND SET UP BARCODE PRINTING

To start, click **Setup** on the Main Menu, then click **System Parameters**. Next, click **Unlock Upgrade Options** and follow the instructions on the screen. You will need to insert the Barcode Printing Upgrade disc to complete the process. Once installation is complete, exit from the System Parameters screen.

The first step in printing barcodes is to choose the format. To set up your barcode format, click **Setup** on the Main Menu, then **Barcodes** to open the **Setup Barcode Printing** screen, seen in Figure 27-1. You will be able to print barcode labels in a variety of formats. The most common barcode formats are Code 128 and Code 39,

and we recommend either Code 128 or Extended Code 39. Select the barcode format you would like to use by clicking the radio button next to the desired format.

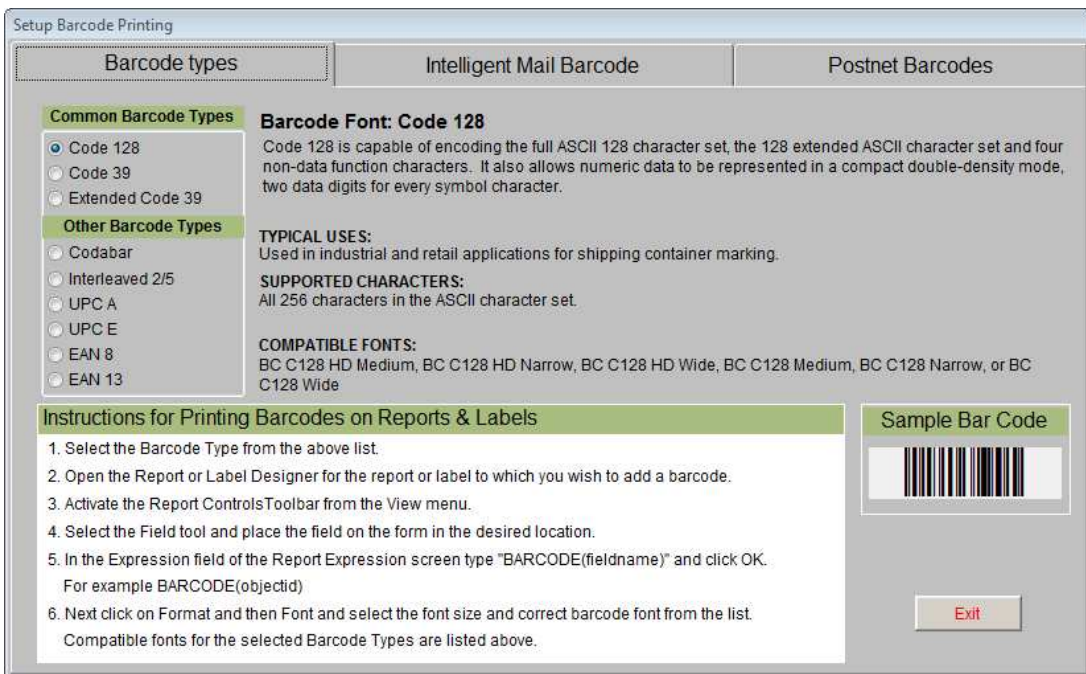


Figure 27-1 Setup Barcode Printing screen

Code 128 is capable of encoding the full ASCII 128 character set, the 128 extended ASCII character set and four non-data function characters. It also allows numeric data to be represented in a compact double-density mode, two data digits for every symbol character.

Code 39 supports all upper-case alpha characters, numeric characters, seven additional characters, and a unique start/stop character. As one of the older barcode styles, it is used in many applications. However, it tends to be one of the larger formats, requiring more space to represent the same number of characters than, for example, an Interleaved 2/5 or a Code 128 barcode.

The **Extended Code 39** provides support for the complete alphanumeric character set. It supports the lower-case characters by combining two normal Code 39 characters, making this a very large format. Care must be taken to make sure the scanner is in Extended Code 39 mode, or else the lower-case alpha characters will be returned as the two separate characters.

PastPerfect also supports three other barcode formats:

Codabar is capable of encoding 16 data characters, including the numeric digits 0 through 9 and - \$: / . +. There are also four unique start/stop characters designated as A, B, C, and D and the symbology provides for a check character, which is optional.

Interleaved 2/5 (also called 2 of 5) provides support for the numeric characters 0 through 9. The symbols always contain an even number of digits and encode them in a two-to-one compressed format. The symbol also contains different start/stop codes and an optional but recommended check character.

UPC (Universal Product Code) and its European and Japanese counterparts, EAN and JAN, provide the ability to encode a manufacturer's ID and a part number to uniquely identify a manufacturer's product line. The symbol supports the numeric character set 0 through 9, a unique start/stop code, guard bars, and a required check character. The **UPC A** format supports 11 characters plus a check character. The **UPC E** format supports five characters plus a check character. The EAN 8 format supports seven characters plus a check character, and the EAN 13 format supports 12 characters plus a check character.

POSTNET BARCODES

PastPerfect will also print the POSTNET format used by the U.S. Postal Service to encode ZIP Code information for automatic mail sorting.

Devised exclusively for use by the United States Post Office, this format encodes the 9-digit ZIP+4 Code, which is the 5-digit ZIP Code plus an additional 4 numbers. It can also include a two-digit carrier route to create an 11-digit delivery point barcode. You will need to enter the 5-digit ZIP Code, the 4 additional numbers and the 2-digit carrier route (if known) into your contacts' ZIP Code field. The symbology is not a standard barcode per se, since it relies on the individual height of the bars to encode the characters rather than the bar width and spaces as a standard one dimensional barcode does. It uses a required check character and a single tall bar as a start and stop symbol.

No type selection is required for POSTNET printing since there is only one type.

At the time of printing, the POSTNET format is being replaced by Intelligent Mail barcodes. Please see www.museumsoftware.com for the most updated information.

BARCODE PRINTERS AND LABELS

Barcode labels, for collection items and contacts mailings, may be printed on a standard laser or inkjet printer. The laser printer is better because the labels will not smear if touched before they dry. To ensure that the labels can be easily read with the scanner, they should be printed at 600 dpi or higher. The default label is set to print on an Avery 5610 label, which is 1" x 2⁵/₈".

Barcode labels can also be printed on specialized barcode label printers. You can modify your barcode labels to work with almost any type of barcode label printer. Labels may be printed on any type of barcode label, whether acid-free paper or fabric labels, and any size label.

ADDING BARCODES TO A LABEL

PastPerfect comes with barcode labels already designed for printing Objects, Photos, Archive, and Library record labels. You may use this layout or modify it to meet your needs. Start by clicking **Reports** on the Main Menu, then choosing either Objects, Photos, Archive, or Library under Report Types. Click once on the **Barcode Labels** report, then choose either **Custom Layout 1** or **Custom Layout 2**. Click **Modify Selected Layout** to open the Label Designer screen.

Much like placing a standard field on a report or label, as described in *Chapter 19 - Advanced Report Modifications*, you can use the Field tool of the Report Controls toolbar to place a new field on the label. This will open the Report Expression dialog box. This dialog box, shown on the right side of Figure 27-2, allows you to enter or view the name of the field that will be printed. If you want the field printed in barcode format, enter the field name inside parentheses preceded by the word "barcode."

For example, to print the Object ID as a barcode, enter "barcode(objectid)" in the Expression field. We suggest using the Object ID as the barcode field because it is a unique number, but in fact you can print any field in barcode format as long as its characters are available in the barcode format you have selected. Code 128 and Extended Code 39 are good choices because they support both upper and lower-case letters and numbers.

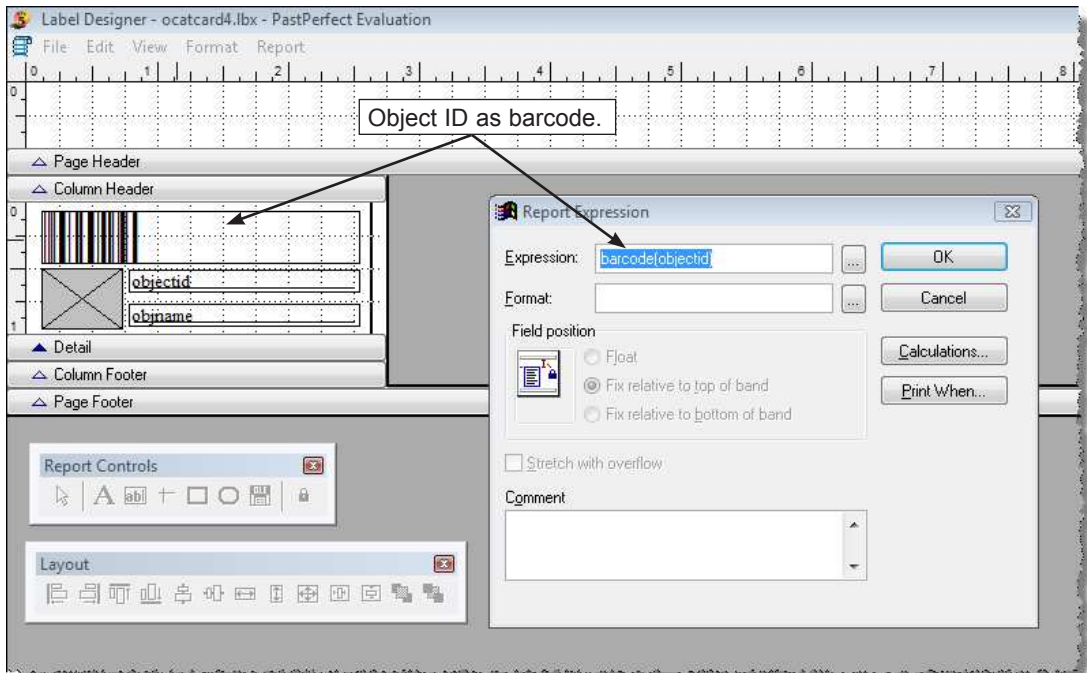
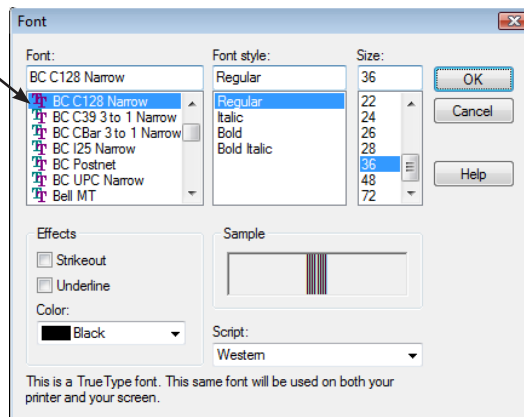


Figure 27-2 Label Designer screen for Barcode Label displaying Report Expression

Select a matching font. The final step in the setup is to select the proper font for printing the code. First, click on the barcode field in the Label Designer screen and then select **Font** from the **Format** drop-down menu at the top of the screen. When you installed PastPerfect, barcode fonts were added to your computer's font list. Please select one of the fonts that match the barcode format you choose on the Setup Barcode Printing screen. The Setup Barcode Printing screen displays the list of compatible fonts for each format.

Figure 27-3
Font screen

Choose a barcode font that matches the font you selected on the Setup screen.



Also on the Font screen you can select the size of the font. The larger the font size the better. For best performance we recommend at least 36 points.

To save your changes, click **File**, then **Save**. To close the Label Designer, click **File** and **Close**. Be sure to select your **Custom Label 1** or **Custom Label 2** on the Report screen.

You can now print barcode labels for one record at a time by using the **Print** button at the top of a catalog record. Chose **Barcode Labels** as the Card Type to print. You can print barcode labels for multiple records at one time from the Reports menu by choosing the appropriate catalog under Report Types, and choosing the **Barcode Labels** report.

TIP

You may also print barcode labels for items in search results and on catalog lists. With the Barcode Printing Upgrade, Barcode Labels are one of the report choices in the Print List menu on the Query and View Lists screens.

Barcode printing is not restricted to the catalog labels or even labels in general. You can print barcodes on any label or report by adding the barcode field and selecting the appropriate font.

PRINTING POSTNET LABELS

PastPerfect comes with predefined POSTNET labels already set up as Contact Labels Style #2. You can use these as they are, modify them, or create your own labels. The process is identical to creating barcode labels, except that you enter the field expression preceded with the word "postnet." For example, the entry would be "postnet(zip)." Be sure to set the font to BC Postnet.

Please see www.museumsoftware.com for more information about printing Intelligent Mail barcodes.

BARCODE SCANNERS

Most barcode scanners will read the label formats described above. Scanners come in three basic styles—the wand, CCD, and laser.



The laser scanners are the easiest to use because they can scan labels from a distance of one to two feet. However, they are the most expensive.



The CCD (Charged Coupled Device) scanners work well as long as you scan from a distance of about one inch or less. They are a mid-range price option.



The wand-style scanners are the most economical to purchase, but the wand must be in direct contact with the barcode label to read it. PastPerfect does not recommend the use of a wand-style scanner.

PastPerfect Software, Inc. does not sell barcode scanners. Barcode scanners may be purchased from a variety of vendors.

SCANNING THE BARCODE

Once you have barcode labels printed, you can “attach” them to your items. One way to do this is to place items in an archival polyethylene bag or an acid-free box and attach the label to the bag or box. Or you can affix the label to an artifact identification tag. Do not affix the label directly to an item as the adhesive may permanently damage the artifact.

Once the barcode label is associated with the item, you are ready to scan it. If, for example, you have printed the Object ID as a barcode, whenever you scan the barcode it will be just as if you typed the Object ID on the keyboard. Scanning reduces the chance of typing errors and speeds up the find process.

USING QUICK FIND

The **Quick Find** button allows you to search for a particular Object ID number right from the Main Menu. The Quick Find will search through the Objects, Photos, Archives, and Library catalogs all at once.

To begin, click the **Quick Find** button on the Main Menu. Scan the barcode with a barcode scanner. Check the box or boxes for the catalogs you want PastPerfect to search in for the number. Then click **Find**.

When the record is found, the catalog containing that record will be opened and the item's record will appear on the screen. You can begin working with that record and continue to work in that catalog, the same as if you had opened the catalog directly from the Main Menu.

Barcodes may also be used with the optional Inventory Manager for inventory control. Please see *Chapter 30 - Inventory Manager* for more information.