

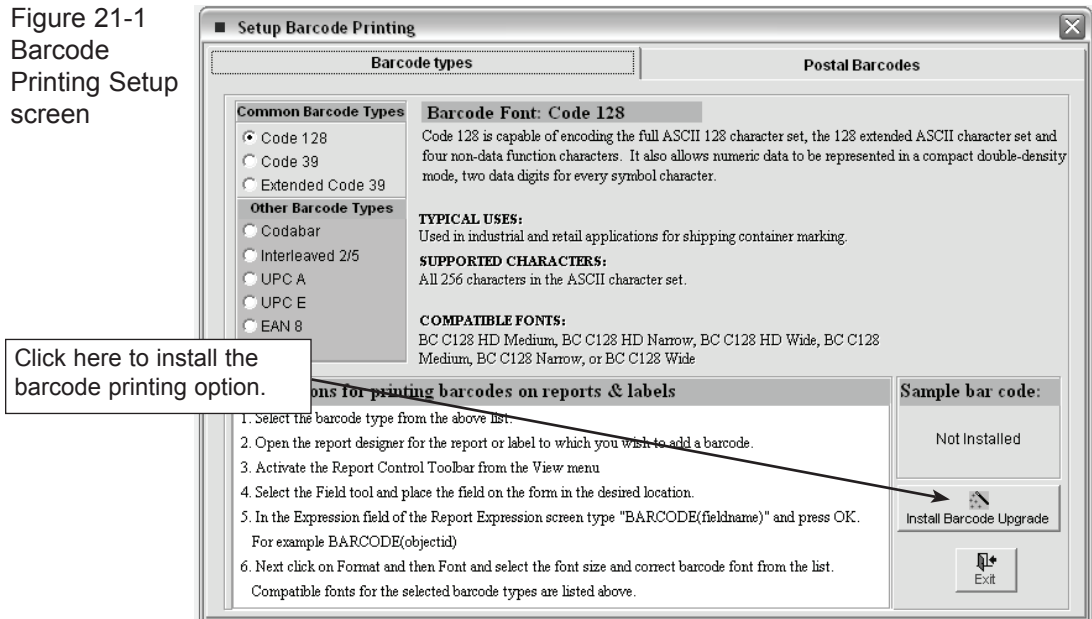
BARCODE PRINTING

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

SET UP BARCODE PRINTING

To start, click the **Barcodes** command button on the Setup fly-up menu. The Barcode Printing Setup screen will appear.

Figure 21-1
Barcode
Printing Setup
screen



Next, click **Install Barcode Upgrade** and follow the instructions on the screen. You will need to insert the Barcode Printing Upgrade disk to complete the process.

Once installation is complete, you will be able to print barcode labels in a variety of formats. The most common barcode formats are Code 128 and Code 39.

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 in common use in many applications, but 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 also 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.

Barcode labels can be printed on a standard laser or inkjet printer. The laser printer is better because the labels won't 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.

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

Figure 21-2
Laser barcode scanner



The laser is the best because it can scan labels from a distance of one to two feet.

Figure 21-3
CCD barcode scanner



The CCD (Charged Coupled Device) scanners work great as long as you scan from a distance of about one inch or less.

Figure 21-4
Barcode wand



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.

The first step in printing barcodes is to choose the format. We recommend either Code 128 or Extended Code 39. The selection is made on the Setup Barcode Printing screen, shown in Figure 19-1.

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 an address zip code plus the additional zip+4 numbers and the two-digit carrier route. While 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 width of the bars and spaces as a standard one dimensional barcode does, it does use 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.

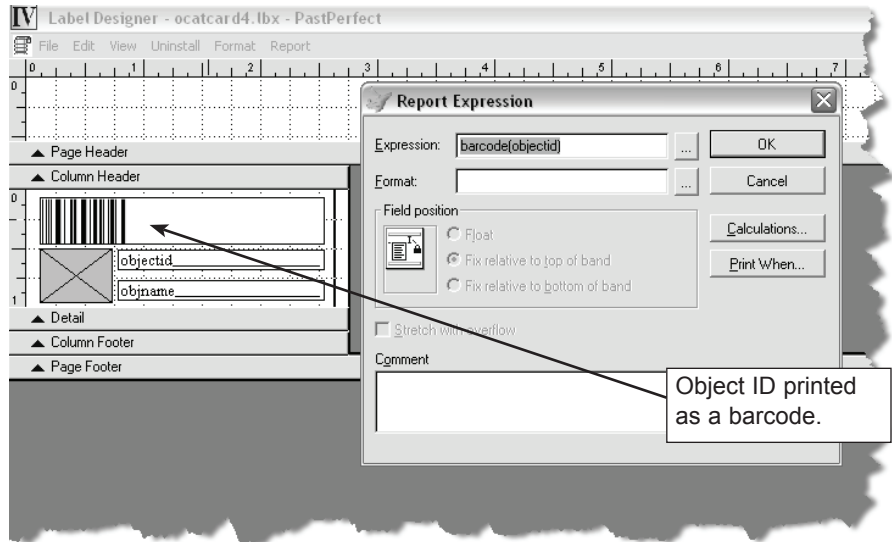
ADDING BARCODES TO A LABEL

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 selecting **Barcode Labels** from the Objects, Photos, Archive, or Library Reports screen. Then press **Modify Report Layout** and **Modify Custom Layout** to open the Label Designer screen.

Much like placing a standard field on a report or label, as described in Chapter 15, 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 21-5, allows you to enter or display 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

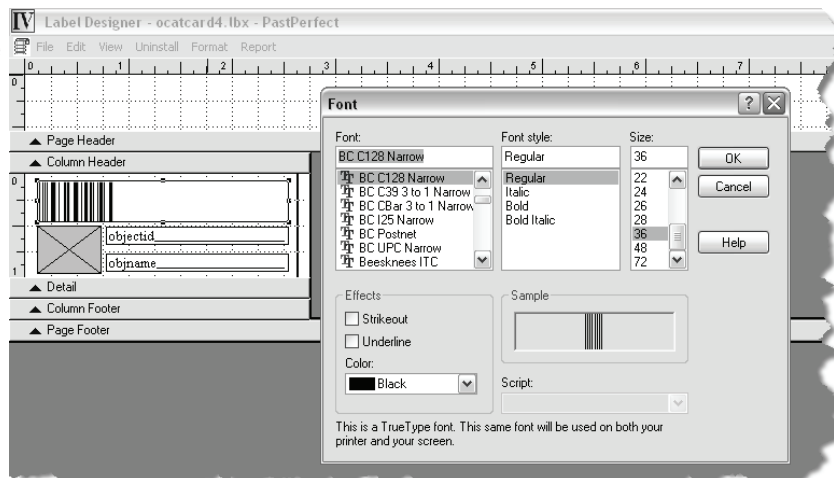
Figure 21-5
Barcode Label
Designer
screen



Extended Code 39 are good choices because they support both upper- and lower-case letters and numbers.

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 pull-down **Format** menu at the top of the screen. When you installed PastPerfect, barcode fonts were added to your computer's font list. It is *critical* that you select one of the fonts that match the barcode format you choose on the Setup screen. The Setup screen displays the list of compatible fonts for each format.

Figure 21-6
Select barcode
matching font



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 on File | Close, answering Yes when asked if you want to save the changes.

You can now print barcode labels using the Print command from the catalog record or from the Reports menu. Barcode printing is not restricted to the catalog labels or even labels in general. You can print barcodes on both labels and reports.

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.

SCANNING THE BARCODE

Once you have barcode labels printed, you can attach them to your items. The best way to do this is to place the items in a Ziploc bag and attach the label to the bag. Or you can affix the label to an artifact identification tag.

Your barcode scanner is installed in parallel with your keyboard and acts as an input to the PastPerfect program. 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. Therefore, to locate an item in the Object Catalog you could press the **Find** command button and then scan instead of typing the object ID.

Most scanners can be preprogrammed to add a preamble and postamble to the set of encoded characters. Using this feature you could send the characters Alt-F to PastPerfect then the object ID. Alt-F would open the Find screen automatically. Then as long as the sort order was set to object ID, you could just scan a barcode to take you instantly to the desired record.