Barcodes in FILEstream Document Management

FILEstream Document Management has a powerful high-speed barcode recognition engine that allows you to read and write barcodes. This functionality can be enabled on one or more workstations by purchasing an optional barcode licence.

Licensing the barcode feature enables the ability to create barcodes and imprint them on existing documents. It also enables the ability to automatically detect pre-printed barcode images and index documents with the barcode value.

Barcode Creation

The annotations module in FILEstream Document Management allows users to create and print various annotations on any image type document. The barcode annotation can be used for stamping an image of a barcode on the document and when burnt-in, it becomes a permanent part of the document. You can pre-create a number of different barcodes by specifying the barcode type and its value, you can also specify whether or not the barcode value is shown along with the barcode image.

Barcode Detection

Scanned in images containing one or more barcodes can be processed for barcode recognition. Cabinets are assigned regional barcode fields which can be tied with the location of the actual barcodes on the page. When indexing a document, the barcode recognition engine will detect the relevant barcode image and automatically fill in any barcode fields in the cabinet.

See the following page for more details about barcodes and the various barcode types supported.

Codabar

Codabar is used in libraries, blood banks, the overnight package delivery industry, and a variety of other information processing applications. Codabar is also known as USD-4, NW-7 and 2 of 7 code.

The Codabar character set includes the digits 0-9, six symbols including: minus "-", plus "+", period ".", dollar sign "$", slash "/", and colon ":", and the following start/stop characters A, B, C and D. The start/stop characters must be used in matching pairs and may not appear elsewhere in the barcode. If you omit the start/stop characters, Smartscan Xpress™ will use A and B respectively. Blood banks use the D stop character to indicate that the next barcode beginning with a D should be concatenated with the current barcode.

The Smartscan Xpress™ Codabar style uses a 3:1 wide:narrow bar width ratio.

Traditional Codabar defines different element width for each of the characters in an effort to make all of the characters have the same width. Rationalized Codabar uses the same patterns, but assigns only 2 element width for wide and narrow. Smartscan Xpress™ implements Rationalized Codabar.

Smartscan Xpress™ will generate an error if you have characters in your barcode value that are not allowed.

Codabar requires a quiet zone, which should be at least the width of 10 narrow bars. This means that if you set the MakeBarcodeBarSizeMakeBarcodeBarSize property to 3 pixels (narrow bar size), you should set the MakeBarcodeBWidthMakeBarcodeBWidth property to 30 pixels.

Code 128

Code 128 provides excellent density for all-numeric data and good density for alphanumeric data. The symbol can be as long as necessary to store the encoded data. It is often selected over Code 39 in new applications because of its density and because it offers a much larger selection of characters. Code 128 is designed to encode all 128 ASCII characters.

Code 128 is divided into three subsets A, B and C. There are three separate start codes to indicate which subset is being used. In addition, each subset includes control characters to switch to another subset in the middle of a barcode.

Code 128A – Digits, uppercase characters, standard ASCII symbols and control codes.
Code 128B – Digits, upper and lower case characters, standard ASCII symbols and control codes.
Code 128C – Numeric only. Compresses two numeric digits into each character, providing excellent density. Smartscan Xpress™ will add a leading "0" if there are an odd number of digits in the code.
Code 128 – Switches automatically between the three character sets (A, B and C) to code the data in the shortest form.