

WHAT IS A BAR CODE SCANNER IN TERMS OF AUTOMATED LIBRARIES?

A bar code reader uses a photosensor to convert the bar code pattern into an electrical signal as it moves across a bar code label. The scanner then measures the relative widths of the bars and spaces and translates the different patterns back into regular characters. The storage software then utilizes these characters as a unique identifier for each disc or tape.

The bar code scanner is an option on the Plasmon G-Series MO libraries and is standard equipment on the V40/60 and V68/102 tape libraries. On the LTO/AIT tape autoloaders, the bar code scanner is an option. In these library families, the scanner is located on the media 'picker' so it can scan the labels located on each optical disc or tape cartridge.

THE BENEFITS OF BAR CODING

The three main benefits of bar coding are out-of-library media management, faster media inventorying inside the library, and added security.

OUT-OF-LIBRARY MEDIA MANAGEMENT

When the media is removed from the library, the bar code scanner-and-label combination allows the automated library software to easily identify what media is in the library and what media has been removed from it. For MO, this allows the customer to extend the capacity of the library by removing media that is rarely accessed to make room for more frequently accessed media. In essence, this permits the software to manage many more cartridges than those located inside the library. Most software vendors do not charge for this option.

Bar code and media can be readily added to the library and recognized by the software without a time consuming process of loading each individual piece of media into a drive in order to be recognized. This results in administrative cost savings along with providing more timely availability of data.

Bar coding makes this process easy. When a read request occurs for media that has been removed from the library, the software will request a load of the specific piece of media into the library or standalone drive and reference the bar code number on the media. If the media is on a shelf or in a vault for safe keeping, the operator simply retrieves the media and loads it into the library or standalone drive, then responds to the read request.

For backup applications utilizing tape libraries, software vendors utilize bar codes for management of offsite media

and for tape rotation. For both backup and archiving applications, the media needs to be removed from the library through software commands rather than by opening the door and removing the media. Otherwise, the software would need to re-inventory the library to determine what media remains in the library and what has been removed.

MEDIA INVENTORYING

Bar coding is a major benefit for inventorying a library, especially for larger libraries. Imagine a case where the software needs to verify the content and location of the media inside the library (for instance, if someone had opened the library door and had access to the media). Without bar code support, the software would request a load and verification of each piece of media. For a Plasmon G-638 full of MO media, that could take anywhere from 4 to 30 hours depending upon the storage software and the number of drives. During this inventory period the library will be unavailable. With the bar code scanner enabled, this process takes approximately 11 minutes. In addition, bar coding facilitates faster recognition of new media added to the system.

ADDED SECURITY

When enforcing a unique bar code numbering system on all the media, the software is able to ensure the correct cartridge is picked and placed into the drive before reading the header information on the disc. This is an added security benefit because the software will verify each cartridge twice: once prior to loading using the bar code scanner and again after loading the media and reading the header information.

SUMMARY

The need for bar coding is typically determined by the application and the customer. For backup applications utilizing tape, it is a common feature because media is often taken offsite for disaster recovery and tapes are placed into rotation pools for reuse. For archiving applications utilizing MO, bar codes are not as commonly used, but can be just as beneficial and effective.

Bar code scanners may not be necessary with smaller libraries (not filled to capacity) or when removing unused media from the library is not a requirement. However, for customers with large libraries (filled to capacity), where unused media is removed frequently or added levels of security are required, bar codes are virtually a must.

Label Purchasing Information

Plasmon recommends labels for the MO media (part number 1801-43d) called Tri-Optic that can be purchased from EDP/Colorflex (www.colorflex.com). The LTO labels can be ordered from Plasmon under part number 305836-000 and the AIT labels under part number SP97704650.



**Storing More Of
Your Digital World™.**

Plasmon, Inc.
U.S. Sales & Marketing Headquarters
400 Inverness Drive South
Englewood, CO 80112
Tel: 800-451-6845
Fax: 720-873-2501
sales@plasmon.com
www.plasmon.com

Plasmon Data Ltd.
European Sales & Marketing Headquarters
Whiting Way, Melbourn
Hertfordshire, SG8 6EN
Tel: +44 (0) 1763 262963
Fax: +44 (0) 1763 264444
sales@plasmon.co.uk
www.plasmon.co.uk

Plasmon, Inc.
Manufacturing Headquarters
4425 ArrowsWest Drive
Colorado Springs, CO 80907
Tel: 719-593-7900
Fax: 719-593-4597
sales@plasmon.com
www.plasmon.com