

BIBLIOTHECA

Bibliotheca is an international company with headquarters in Switzerland. It opened a North American office this past year.

Although sales representatives are in several cities in the Eastern United States, the company contracted with Demco as its distributor in California, Oregon, Washington, Texas, Nevada, New Mexico, Arizona, Louisiana, and Oklahoma. The company calls its radio frequency identification (RFID) system the BiblioChip system.

Tags

Bibliotheca's BiblioChip tags, which are passive and about 2.0 by 3.2 inches in size for books and 1.2 inches in diameter for media, are read-write with up to 7,000 bits of storage.

The company has selected 1,024 bits as its standard size and quotes higher-capacity tags when requested by a library. The 1,024 bits allows the inclusion of author, brief title, library code, location in the library, and completeness information (itemization) for media packages.

The tags include a theft bit that can be turned on and off. If an item that has not been charged is detected by the exit sensors, an alarm sounds. The sensors also read the information on the tag, so the library knows what has been taken. This identification facilitates reordering if the material is not recovered from the patron.

Almost no libraries that have purchased Bibliotheca systems are storing more than the item identification and a brief author-title on the tags. They may add information in the future, though, because of the read-write nature of the tags.

The tags are produced by two companies that work together, Lucatron and X-ident. They use microchips from Philips Semiconductors, Texas Instruments, and Siemens Electronics. The tags are compliant with ISO 15693.

The tags are available preprinted or blank for later printing with a special RFID printer that is available from the vendor.

Staff workstation (including the programmer)

The staff workstation, which may be installed in or on top of a service counter, is used not only for charging and discharging library materials, but also for conversion and the initial application of the tags. The workstation consists of a reader and a PC—the latter is a client on the automated library system.

When an item is initially being tagged, it is first put on the reader. The item number of the item is read and downloaded from the database of the automated library system. It is then programmed and linked to the RFID BiblioChip.

Certain data also can be programmed directly to the chip. Preprogrammed tags are linked to the ID number of the item with software used for the initial registration. This data is supplied by the automated library system.

An RFID printer from Bibliotheca can be directly attached to the staff workstation. It can be used to print a library's logo and the item ID on the tag.

Patron self-charging station



Patron Self-Charging Station.

When the patron confirms that the charging process is completed, a receipt is printed that shows what items have been borrowed and the return date. The tag is then automatically set on quiet (off) so no alarm sounds when the material passes the exit sensors. The station also may be used to verify the status of a patron's account.

To check out materials, a patron places the selected items on the platform and inserts a library card into the slot of the reader. RFID tags can be used on the patron cards or barcodes can be used.

The reader scans the tags on the library materials and transmits the information to the automated library system. The titles, their ID numbers, and other optional information is displayed on the screen.

When the patron confirms that the charging process is

Exit sensors



Exit Sensors.

The exit sensors register each item that passes between them and query the library's automated library system to determine if the item has been properly charged. If not, it triggers an alarm.

If the patron card also has a RFID tag, the patron and the materials are recorded as having left the library together. The inquiry of the automated library system requires a high reading speed.

Patron self-discharging system

Patron self-discharge is done on the same model of equipment as patron self-charging. In this case, the patron scans the patron tag, chooses 'return,' places the item or a stack of items on the reader, and waits for a receipt.

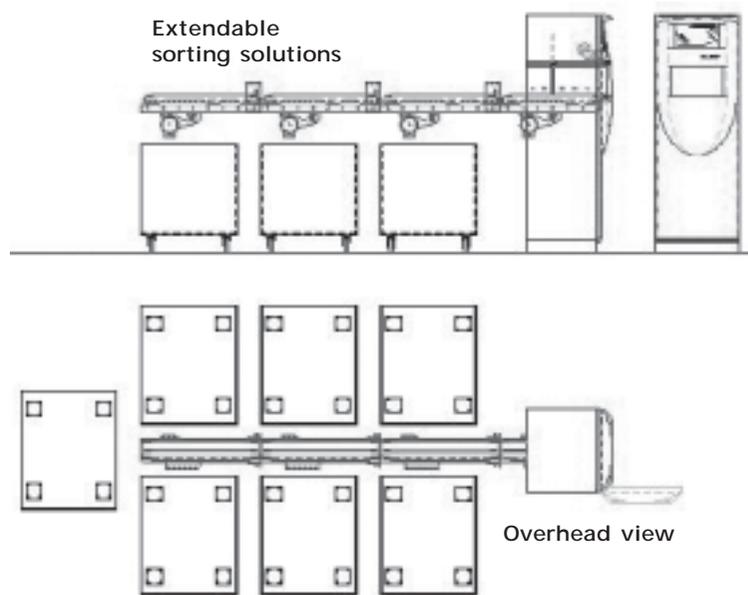
Bookdrop reader

The BiblioMat Book Return Station is a bookdrop with screen and receipt printer. It reads the RFID tags as the materials drop and transmits the information to the automated library system.

At the option of the library, the process will not begin until the patron has inserted a patron card. At the end of the process, the patron receives a receipt. The bookdrop can be interfaced with a sorter.

Sorter

The sorter typically consists of conveyors to take the library materials from the bookdrops to the sorting bins. The number of bins can range from two to 200 or more.



A typical layout for a small sorter. One bin is for holds or reserves; the other bins are for various areas of the library.

Portable reader

Bibliotheca's hand-held reader for inventorying and shelf reading also can be used to search for individual items that have been requested. Other applications can be written for the terminal because the system uses a personal data terminal with Windows CE software.

Customers

Bibliotheca has more than 20 customers worldwide. One of the largest installations is that at the Vienna Public Library in Austria, a library that has already tagged more than 300,000 items and plans to tag another 200,000. Other public library installations are in Winterthur, Switzerland; Stuttgart, Bonn and Bad Homburg, Germany; and Heiloo, the Netherlands.

A major installation also is at the Catholic University of Leuven (Katholieke Universiteit van Leuven). It has have tagged more than 1 million items.

Bibliotheca made its first North American sale in July 2003. The customer is the Mastics-Moriches Shirley Community Library of New York. The library will tag 250,000 items.