The National University of Singapore Library to Incorporate RadioFrequency Identification Technology, Selects 3M Digital Identification System

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World's Largest Radio Frequency Project to Streamline Operations, Security In
Six Libraries in the NUS Library System

SUNTECH CITY, Singapore, April 27 /-- Singapore -- 11th Conference of Southeast Asian
Librarians, Booth L14.

3M Library Systems and the National University of Singapore (NUS) Library today announce
that they will introduce an integrated system of digital identification technology to the
university's libraries. The project is significant, involving two million books and materials across
six libraries, making it the largest library site radio frequency identification (RFID) project
in the world.

"The National University of Singapore Library has its eyes on the future," explained John
Yorkovich, digital technologies marketing manager, 3M Library Systems. "Due partly to budget
limitations, university libraries sometimes can't see beyond immediate needs. Yet libraries like
NUS have to address future needs with solutionsthat allow them to best serve their information-
hungry, technology-savvy patrons."

NUS Library has selected the 3M(TM) Digital Identification System to integrate and further
automate its six libraries. The concept of the 3M Digital Identification System, which includes a
suite of products that track library materials by a "smart label" affixed to each item, was
introduced at last year's American Library Association Annual Convention in the U.S. The
system will be officially introduced to the library industry at the 2000 ALA show in Chicago in
July.

NUS Library will immediately begin using the 3M Digital Identification System Conversion
Station to facilitate the transition from optical bar codes to digital identification tags. Each tag
includes a tiny antennae and microprocessor chip that contains information unique to the item it
marks. The tags will be decoded via radio frequency waves so that items can be tracked as they
enter, move about and exit the library with patrons. The 3M Digital Identification System is
the cornerstone of 3M Library System's Materials Flow Management concept, which seeks to
optimize this flow of materials.

The 3M Digital Identification System will be used within the NUS libraries to, among other
things:

-- Maximize staff productivity by reducing the amount of time needed to manage time-
consuming routine tasks, like tracking lost items and taking inventory (which will be completely
automated with the 3M Digital Identification System).

-- Enhance patron services via Smart Remote Bookdrop systems. The patrons will be able to return any books from any of NUS libraries at 15 convenient locations around the campus.

-- Minimize unauthorized removal of library materials, as the Digital Identification System provides for patron checkout that integrates magnetic security with detection systems located at the exits/entrances of the libraries.

Patrick Lye, head circulation of the NUS said: "Students can return materials when and where it is most convenient for them and, because the book drops also integrate digital identification technology, they can accept and identify items, dispense a receipt to the borrower, and check items back into the library's automation system."

The 3M(TM) Digital Identification System is expected to be fully operational in the Central Library from June 2001. NUS expects to complete the project for the entire six library system in 2002. A fully operational 3M Digital Identification System includes: 3M(TM) SelfCheck(TM) Systems, 3M(TM) Staff Workstations, 3M(TM) Digital Library Assistants, which are hand-held wands that perform functions such as inventory with a sweep of a hand; 3M(TM) Tattle-Tape(TM) Security Strips; 3M(TM) Detection Systems; Book Drop and Sorting Systems; and 3M(TM) Digital Identification Tags.

The global leader in library security for nearly 30 years, 3M protects literally billions of individual items in thousands of libraries throughout the world.

3M (NYSE: MMM) is an innovative, highly diversified U.S. based, multinational corporation with worldwide sales of more than US$15 billion in 1998. A world leader in innovation and technology, its vision it to be the most innovative enterprise and the preferred supplier in every market it serves. Today, 3M has operations in more than 60 countries and employs more than 70,000 people worldwide. Headquartered in St. Paul, Minn., 3M has more than 50,000 innovative products serving markets from industrial and electronics to consumer and health care markets.

For more information about the 3M Digital Identification System, please visit http://www.3m.com/library

For more information about the National University of Singapore Library, please visit http://www.lib.nus.edu.sg