

Asset ID

Information Brief

Worth remembering

Asset ID™¹ is a radio-frequency identification (RFID) technology that helps improve the management and security of PCs, professional workstations and notebook computers. Asset ID enables compatible security and asset-tracking systems, including handheld devices, to wirelessly read or write vital system and user information on an EEPROM chip inside select IBM NetVista™ or PC 300® personal computers, Intellistation® professional workstations or ThinkPad® notebooks. The information can be read or recorded even when the system is powered down or still packed in its carton. Asset ID can eliminate many of the costly, time-consuming manual steps involved in today's system deployment, inventory and tracking processes.

- x Asset ID allows you to take accurate physical inventories of systems and their components without searching for a label or opening the chassis. For PCs and professional workstations, simply pass a compatible handheld device near the box, and it can read system information such as model numbers, serial numbers, processor speed, hard disk drive size and memory—as well as any end-user information you choose to record. For ThinkPad notebooks with Asset ID, the handheld device can read information such as the system board serial number, system unit serial number, CPU card serial number and DC/DC card serial number.
- x When used in conjunction with a compatible RFID security system, Asset ID can be used to assist security personnel in preventing unauthorized removal of computers and notebooks.
- x Asset ID is part of IBM's Universal Manageability strategy, which delivers innovative standards-based technologies to simplify system management.

What is Asset ID?

Asset ID applies the convenience of radio-frequency identification technologies to the challenge of managing computers. The essential component of Asset ID is a radio-frequency tag that is linked to an Asset Information Chip (EEPROM.) The Asset ID antenna enables communication between the computer and an industry-standard radio-frequency handheld device or reader. The EEPROM contains information about the user including name, phone number, department, system location and lease/warranty data. It also contains information about the system, including its configuration, MAC address and the serial numbers of key components.

You can think of Asset ID as the next generation of barcode technology, with considerably more convenience, reliability and functionality. An Asset ID scanner, for instance, does not need to be pointed at a label—it can read signals whenever it is in close proximity to a radio-frequency antenna, even if the computer is still in its carton. And Asset ID does more than just read data—unlike barcode, it can also be used to write information back into the system's EEPROM.

IBM has implemented Asset ID in select models of the IBM NetVista and PC 300 personal computers, IntelliStation professional workstations and ThinkPad 600 and 770 notebooks. Compatible readers and terminals are available from IBM Asset ID Technology Partners like Symbol Technologies and HID Corporation. Visit ibm.com/pc/ww/assetid/ for a complete listing of IBM Asset ID Technology Partners.

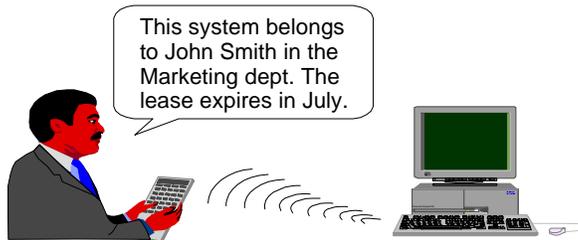
Automatic deployment of computers

Imagine receiving a shipment of 50 computers at your loading dock. Your job is to check the shipment, set up the computers and ensure that the software each end user needs is loaded onto the appropriate machine. Your boss wants to know when you can have them set up and ready to operate. What do you tell him?

If you had purchased a computer that did not have Asset ID, the job of deploying 50 of them could take days, or even weeks, depending on the size of your support staff. Fortunately, you bought Asset ID-enabled IBM computers, so you can look your manager in the eye and say, "I'll have them set up by tomorrow morning."

You know that these IBM computers are equipped with Asset ID, the latest in a long line of Universal Manageability innovations from IBM that help make networked computer systems easier to manage. Asset ID is an adaptation of radio-frequency identification technology that enables you to read and write information to a system EEPROM using a wireless handheld device.

So, while the computers are still on the loading dock, before they have even been unpacked from their cartons, you can use your handheld unit from Symbol Technologies and HID Corporation to read each system's EEPROM to determine its configuration.² Based on the system's configuration, you can write who the end user will be and record their software requirements (e.g., Assigned to John Smith in Marketing, who needs the standard marketing software image).



As soon as the systems are unpacked and plugged in, the rest of your job can be completed from a management console using IBM's LANClient Control Manager™ (LCCM) software and Wake on LAN® technology. You can easily program a routine that turns each system on, reads the Asset ID-programmed software requirements, downloads the appropriate operating system image, and then powers the system off.³

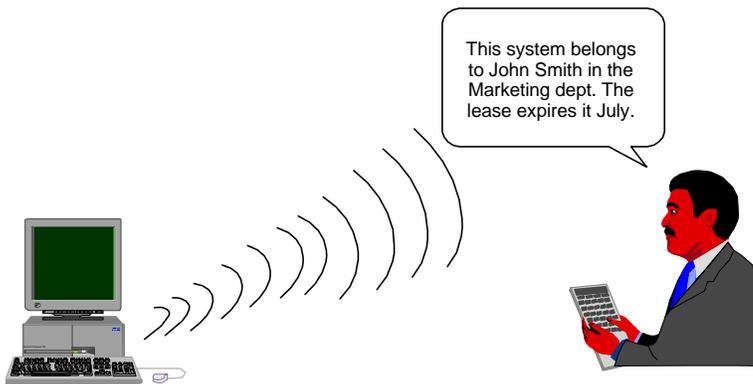
Your boss may think you are going to have to work all night to meet your goal. In fact, you can go home and get a good night's sleep while the LCCM routine is running. Your users can come in the next morning and be instantly productive. It doesn't get any easier.

Quick-and-accurate inventory

Asset ID can dramatically reduce the time required to physically inventory your systems, while providing better information than is available from barcode systems. The handheld device can read data whenever it is placed near a computer PC, so you no longer have to search for a barcode label.

Because Asset ID is connected to a system EEPROM that contains up-to-the minute information about system components, your inventory can be as detailed and as accurate as if you had removed the chassis and personally inspected each processor, DIMM and hard disk drive.

And an inventory taken using Asset ID can also include system data you have recorded on the EEPROM, such as the identity of the end user and the expiration date of the equipment's lease.



The next time you need to do a physical inventory, you can simply walk around the premises with your handheld reader. This device can read the complete, up-to-date system information through the Asset ID interface. Critical system data such as user ID, lease expiration date and configuration information can be read in seconds. Because the embedded Asset ID tag contains

complete, up-to-date information about the system and its components, as well as the information you have entered—such as user ID or lease expiration date—you can get a more complete and accurate inventory, with less effort than ever before.



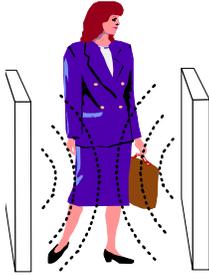
Improve security measures

IBM and its technology partners, HID Corporation and Atmel Corporation, are working with the Security and

Access Control industry to capitalize on the functionality of Asset ID to add asset tracking and security to access control systems. Two major applications—Electronic Property Pass and Asset Portal Reading—have great initial interest because they can easily be added to existing building security applications.

Property pass procedures are mainly manual today, requiring a security guard to check or fill out paper-based forms when an employee attempts to leave the building with a valuable asset like

an IBM PC, ThinkPad notebook or IntelliStation workstation. When the exit is unattended, authorization to remove the asset may never be verified.



An Asset ID-compatible property pass reader can be stationed at each building control point. As employees carrying tagged assets walk through the portal, the reader compares their employee identification card to the user ID recorded on the Asset ID tag integrated into the IBM system. When it recognizes an authorized match, it simply records the movement as an aid in tracking the authorized movement of assets.

But when the reader fails to detect a match it notifies a building security application, which can then activate surveillance devices and alert security personnel. It can also send an RF signal to the employee's computer to prevent it from booting up without a special password from an IT administrator or supervisor. The disablement renders the system useless and also helps protect any proprietary data on its hard disk drive.

HID Corporation also offers compatible Asset ID tags that can be securely attached to the outside surface of a valuable asset. But there are several advantages to purchasing IBM systems that have the tags integrated internally:

- Only internal tags can be linked to system resources for dynamic inventories.
- There are no visible means of knowing that the IBM system is protected, which could lure a potential thief into making a mistake.
- The system can automatically be password locked if a theft is occurring.
- The tag itself can detect and report tampering.

Deploying Asset ID

The handheld reader needed to take full advantage of Asset ID consists of two parts: a PDT 6100 barcode reader, manufactured by Symbol Technologies, and an AMH100 radio-frequency adapter from HID Corporation. Both components are available from select IBM business partners. Customers who are already using the PDT 6100 for a barcode reader need only add the AMH100 to gain access to the Asset ID chip embedded in select IBM products.

Other Asset ID handheld readers will be available from various vendors worldwide. Visit ibm.com/pc/ww/desktop/assetid for a complete list of Asset ID partners.

Technology solutions for real business problems

The costs of system deployment and inventories are a significant portion of the Total Cost of Ownership of a computer system in a business environment. Asset ID is the latest example of how IBM is applying innovative, standards-based technologies to offer Universal Manageability, so you can focus more of your attention and resources on your business. Asset ID also leverages common access control systems to provide advanced asset tracking and security, particularly for more portable computers like the IBM ThinkPad notebook.

For more information

For information via the World Wide Web	ibm.com/pc/ww/assetid
In Canada	ibm.com/pc/ca
For product and dealer location information	1 800 426-7255 ext. 4750
For product information sent directly to your fax machine	1 800 IBM-3395 (1 800 426-3395)

¹ Asset ID allows your personal computer to be “scanned” by handheld radio frequency emitting devices supplied by various independent companies.

² At this time, information can be written to Asset ID-equipped ThinkPad notebooks, but memory and hard disk drive size are not readable. Scanning device must be purchased from a third-party manufacturer. Visit **ibm.com/pc/ww/desktop/assetid** for a complete listing of Asset ID partners.

³ The latest release of LCCM version 2.5 does not yet support ThinkPad notebook deployment. Updates are currently being developed for official release in 2Q 99 via LCCM version 2.6.

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