

# REPORTS

## Colour in your hands

It is time for the palm-size PC fans to celebrate! Microsoft has brought colour into their lives. Code-named 'Wyvern', the new version of Windows CE is an operating system for the colour palm-size PC. Apart from the addition of colour, Microsoft has also modified the fonts—from bitmap to true type—thereby making the display of text closer to what you see on your desktop PC.

There is now support for 256 colours and a 230 x 320 resolution display as well as more efficient battery usage. Also incorporated in the new version of Wyvern, is support for enterprise customers who would like to develop applications for palm-size PCs using Visual Basic, Active Data Objects (a database layer that enhances communication between the application and the database) and Microsoft Foundation Classes (a common command library). Manufacturers can offer support for ROM or provide tools on-disk for loading into RAM.

Two of the biggest palm-size PC manufacturers have already launched a model each, using the latest Windows CE version with the colour display and other enhanced features, but have not yet decided upon whether to include Visual Basic, Active Data Objects and Microsoft Foundation Classes. Compaq's Aero 2100, is going to cost approximately \$100 more than the older model which was priced at about \$400.

Aero 2100 models will have a 80 MHz MIPS R4000 processor, 16 MB RAM, an extra Lithium-Ion battery expected to last

between 6-10 hours, a slipcase and a docking cum charging cradle all weighing about 10.9 ounces.

A definite plus over the HP Jornada is the vibrator mode for scheduled alerts. Pre-packaged software by Compaq will include Asset Management in ROM for use on networks and corporate environments plus certain more additions that were not decided at the time of the press release.

### Shades of competition

In answer to Compaq, HP has launched Jornada 420, which supports the new Windows CE colour display but is not going to include Visual Basic, Active Data Objects and Microsoft Foundation Classes. Priced a little higher than the Aero 2100, Jornada will run a 100 MHz Hitachi SH-3 processor, 8 MB RAM expandable to 16 MB, and will include a docking station-cum-charger.

Weighing about 8.8 ounces the battery is expected to last approximately 6 hours and the entire package will include HP Backup, OmniSolve business calculator, bTASK (application navigator), PhoneManager 2.0 and other utilities.

Both models will feature support for touchscreen functionality for ease-of-use, infrared ports, Flash Type II slot, microphones, speaker jacks, alarm LEDs and a serial port for docking and charging support.



*"I need to build a superior experience to capture people who are used to going down to the local Pharmacy"*



Peter Neupert,  
President and CEO,  
Drugstore.com

On the challenge his company faced in terms of doctors placing orders at pharmacies for patient prescriptions, leaving his company out of the loop.

*"We are creating two distinct and strategically focused enterprises, one focused on the measurement business, the other on the computing and imaging businesses"*

Lewis Platt,  
HP Chairman, CEO, and President  
Explaining the new status of HP in the market.

*"I will tell people that we are at the KITTY HAWK stage of e-commerce. We know 2 percent today of what we will know 10 years from now"*

Jezz Bezos, CEO,  
Amazon.com

On the most innovative thing that the company had done since its conception

*"We were unable to go really into the pre-packaged applications world...*

*because we were so focused on what I would call in many ways, creating technology for technologies sake"*



John  
Chen, CEO

Sybase  
On being asked why the company was in need of an overhaul.





**CUT THE CABLE**

**W**ireless home networking devices based on radio-frequency technology are making a big impact on the way people use products. Large, home networking product companies like Diamond Multimedia and Philips have launched an entire range of wireless networking products for home use. Wireless handhelds such as the Cyrix WebPal allow the user to walk with the Web in their hands.

Infra-Com, an Israel-based company has devised a wireless device that gives you limited mobility at low costs. Technology used here is similar to the one used in the wireless remote control of



your TV, only it does not require an unobstructed line of sight between the two receivers. Using IrGate, an omnidirectional IR technology, the infra-red beams emitted from the transmitter connected to the phone jack, are reflected off the walls, ceiling, people and other objects in its journey to the receiver. Connection between the two units works within a radius of 5 metres and can reach speeds of 56 Kbps. Four devices can operate in the same room without the fear of interference with each other.

So what do we get?

For about Rs 5,000 this soon-to-be-launched product called Infra-Com Red Beamer, will give you more flexibility in terms of where you want to place your computer within the room. In addition, it is goodbye to the hassles of dealing with long wires.

# An SOS in time...

**F**ollowing the worldwide trend of placing Service over Product, HCL Infosystems has taken the initiative to provide Y2K service and support to all computer users in India. With the Y2K bug approaching its final stage in another eight months, those who are currently engaged in battling this millennium problem feel the need for a single organisation committed to help fight this menace. Also, according to the Union Budget for 1999-2000, there is 100 percent tax exemption on

all investments incurred on Y2K solutions. Taking into account



be availed of via phone, fax, e-mail (y2k@hclinfosys.com) or a pager number (9622-005566) that is common to all the four metros as well as certain IT centres of the country. The service is open to all regardless of the brand of computer being used.

The engineers at HCL TeleSupport centres are committed to responding within 24 hours of receiving the query.

Advanced queries related to impact analysis, application and data migration would be addressed by a special Y2K Solutions group at SSO (Systems Support Organisation) via e-mail.

In the current situation the company has set up India's very first and totally unique, not to forget toll-free, Y2K assistance called 'HCL Y2K Helpline'.

Called 'SOS' (Save Our Systems), this service can

# Little Short of 50

**"A**fter exactly 49.7 days of continuous operation, your Windows 95- or 98-based computer may stop responding", Microsoft warned its users, without further explanation. This seems to be the latest glitch that Microsoft has had to contend with.

This peculiar and ambiguous bug will crash certain Windows computers after about a month-and-a-half of use. According to the release issued by Microsoft, the problem is apparently caused by a timing algorithm due to some unexplainable reason.

Microsoft has posted a fix for the problem, but cautions that the patch has not yet been completely tested and should only be downloaded by users affected by the problem. However, if you have used your computer for two months straight without a problem, it is probably safe to assume that you are not affected, but for how long?



Microsoft confirmed the bug warning, but could not elaborate on how many users will be hit by the problem, exactly why the glitch occurs, or when a more reliable fix will be available.



# More data, same size

If you have been waiting for a really huge hard disk that can save you the trouble of storing your gigantic files on multiple zip drives, wait a little longer. Seagate Technology International, one of the leading manufacturers of hard disk drives worldwide, claims to have designed a completely new type of hard disk head and storage media, creating a world record in disk drive head and data storage technology.

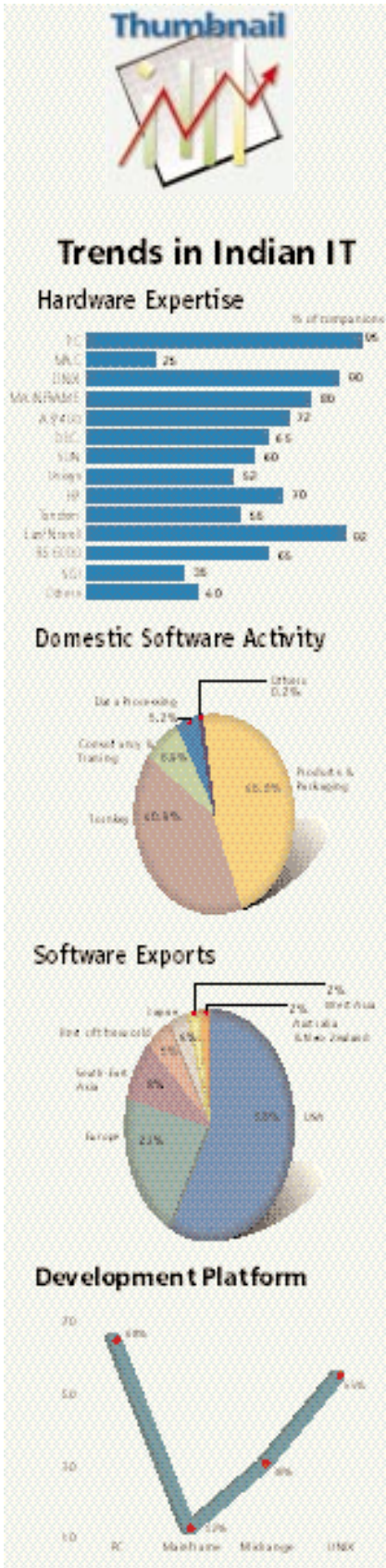
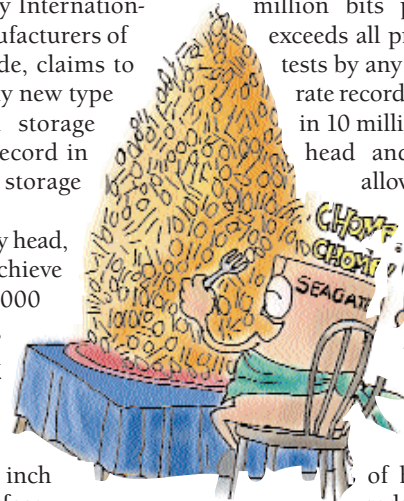
With the new technology head, Seagate has managed to achieve storage capacities of 380,000 bits per inch (380 Kbpi), compared to the current capacity of an average of 120,000 bits per inch (120 Kbpi), along concentric tracks at 43,000 per radial inch (43 Ktpi), on the disk's surface.

During test the data bits were recorded on special Seagate-produced magnetic thin-film, low-noise, ultra-smooth cobalt alloy media which allows for more efficient read-write access. The head was placed at a fly height of 15 nanometers—100th the diameter of a fine silk thread,

again, tremendously reducing the read-write access time.

The new technology (during test) recorded a data transfer rate reaching 214 million bits per second, which exceeds all previously conducted tests by any company. The error rate recorded was as low as one in 10 million. This new type of head and alloy media has allowed them to increase areal density by almost three times per square-inch than that compared to any other hard disk in the world. This will greatly reduce the size and weight of hard disks, in turn reducing the weight of computers as well as notebooks.

Another milestone achieved was of the areal density—greater than 16 million bits per square-inch (16 Gbit/in). This areal density is thrice the storage capacity per square inch of any hard disk drive shipping today.



**WORLD VENTURES**

**COMPU-NET 99**  
 May 11-14, 1999  
 Malaysia  
 Phone: 006-03-926 4111  
 Fax: 006 03 469 0033

**VOICE ASIA 99**  
 April 13-15, 1999  
 Suntec City, Singapore  
 Phone: 0044-0-1244 378 888  
 Fax: 0044-0-1244 370 011

**COMDEX / SPRING**  
 April 19-22, 1999  
 Chicago, U.S.A.  
 Phone: 001-202-482 4918  
 Fax: 001-202-482 4918

**ELECTRON 99**  
 April 27-29, 1999  
 Bangalore, India  
 Phone: 080-3307246  
 Fax: 080-3307246



# OFFICE 97: BITTEN BY THE BUG

**Virus name:**  
X97M.Sugar  
**Aliases:**  
None  
**Infection Length:**  
One VBA Module  
**Area of Infection:**  
MS Excel 97 Spreadsheet

**W**hy Did You Remove Sugar.Poppy? If your Office 97 Excel document displays this message, you have the X97M.Sugar virus on your PC. The virus gets triggered on activation or deactivation of an infected worksheet while editing in MS Excel. While infecting a worksheet, this macro virus creates a randomly named temporary text file.

It also creates a BOOK1. file in the MS Excel startup directory, which is why the viral code always gets loaded when MS Excel starts. If it cannot find the temporary text file, it displays the message: Why Did You Remove Sugar.Poppy?

The virus also disables the Macro virus protection in MS Excel by adding an AutoExec macro in MS Word and executes it. The AutoExec macro disables MS Excel Macro Virus Protection by clearing the value in Windows Registry. With these options disabled, MS Excel 97 does not warn or prompt while opening a spreadsheet with the macro in it.

**C**ross infectors are becoming a trend among virus writers. You now have macro viruses such as the O97M.Triplicate that can infect

**Virus Name:**  
O97M.Tristate  
**Aliases:**  
W97M.PSD  
**Area of Infection:**  
MS Word 97 Documents

various applications in MS Office 97 (MS Word, MS Excel and MS PowerPoint). O97M.Triplicate does not add a new Visual Basic Application (VBA) module but inserts its viral code into the default VBA module ThisDocument.

In Excel, it disables the macro virus protection and then creates a viral workbook BOOK1. in the MS Excel start-up directory.

In PowerPoint it turns off macro virus protection and then adds a viral module called Triplicate into Blank Presentation.POT and a basic AutoShape object that covers the entire slide. The viral module is linked to the AutoShape object.

If the VBA module ThisDocument does not match what the virus expects when you close your document, the virus replaces the contents of ThisDocument with its viral code.

**W**97M.Pri is a polymorphic macro virus. This virus does not add a new VBA module. Instead, it adds its viral code to the ThisDocument VBA module. This macro virus infects the MS Word 97 global template (NORMAL.DOT) when opening an infected document,

**Virus Name:**  
W97M.Pri  
**Aliases:**  
W97M.PSD  
**Infection Length:**  
One VBA5 Module + One AutoShape in MS PowerPoint  
**Area of Infection:**  
Word, Excel, PowerPoint 97

and other documents while closing them. To hide its infection activity, it disables the Confirm conversion at Open prompt, and the Macro virus protection, before you save Normal template. Furthermore, when the current minute matches the current date (for example, every 8th minute of the hour on the 8th day of the month), this macro virus adds up to 70 randomly coloured AutoShape objects on your document.

The W97M.Pri macro virus also has a modified variant that works under MS Word 2000 and sets the MS Word 2000 security level to low when an infected document is opened. At low security level setting, MS Word 2000 will not warn the presence of macro in document.

## PIII & Win 98: In the same boat

**T**here is a(nother) hidden bug in Windows 98—at least that's what the reports from Microsoft say. The OS, on the sly, is said to add a unique 32-digit number to all documents created using MS products.

The ID number is generated by the Ethernet card or randomly by the operating system, when users register their copies of Windows 98. This ID number could be used to trace documents or the tasks people have been doing on their PC. Microsoft claims that they in no way meant to use the ID number for tracking, but will provide a fix in the next update. Microsoft also promises that any ID numbers unintentionally collected on their



databases would be deleted.

This bug has put the computer manufacturers in a tight situation. Companies like IBM have been demanding that

Intel should remove the serial number in their new Pentium III processors before shipping them. These companies will now need to insist that Microsoft rectify the Windows 98 bug before they ship their machines pre-loaded with Windows 98.

This is sure to be an issue with Intel, because it will not be right for OEMs (Original Equipment Manufacturers) to refuse the Pentium III with a serial number, but continue to ship Windows 98 with this bug.

## PIII: Identity crisis, again

Intel's efforts to set the basis for the future of e-commerce and online transactions, with the built-in serial code feature in its new Pentium III processor, seems to have backfired again. The reason for this disfavour was the in-built serial number, which is designed to transmit a user's personal information over the Internet.

The commercial organisations and human privacy rights groups who raised the uproar were justified in their claim for privacy. As were the loads of users who were interested in using the new PIII instructions set and powerful 450 MHz processing power but not very comfortable with having their personal information made public. Despite the pressure of various lawsuits, Intel decided to retain the serial coding system but developed a patch, which made the serial number of the processor inactive and thereby safe to use over the Internet. But the bliss did not last long.

A Montreal-based company called Zero Knowledge Systems has discovered that a hacker can extract the serial number over the Internet even if your PIII processor had the 'make-my-serial-number-invisible' patch. Research done by Zero Knowledge demonstrated the patch's vulnerability by hiding the ActiveX control in a banner advertisement.



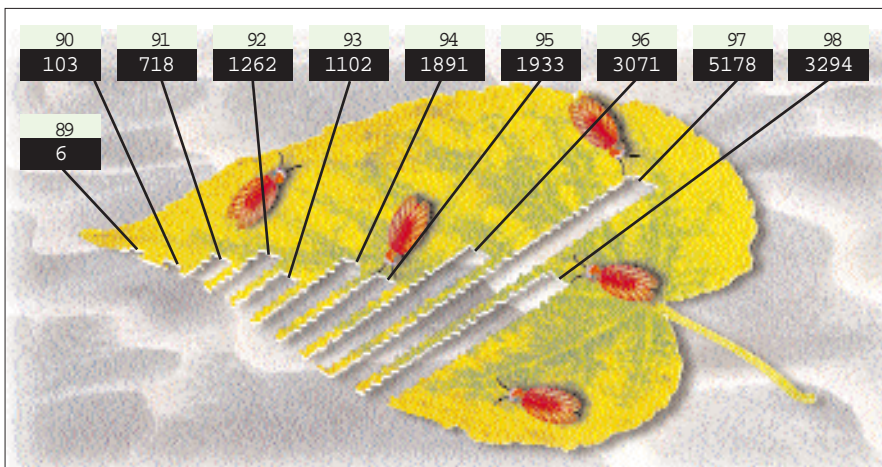
When users click on the ad, the control simulates a computer crash. But at the same time, a 'Trojan Horse' designed to bypass Intel's patch is loaded on to the computer. Rebooting the computer gives the ActiveX control, the opportunity it needs to grab the serial number and place it on a cookie.

The next time the user logs on to the Net, this cookie gets sent back to the originating server, along with the serial number and his/her personal details.



### GROWTH OF VIRUSES OVER THE YEARS

year number of viruses



Source: drsolomons.com

Number of viruses detected in the labs per year

## CHIP

## THERMOMETER

HOT

### Cable Modems

Cable modems will provide you access speeds of over 100 Kbps unlike the 33.6 Kbps of the standard modems

### Firewire

The next best thing to SCSI and USB ports, now offers true plug-n-play capability

### 450 MHz Processors

Intel's Pentium III and AMD's K6-III PC bring the 450 MHz processors out of the server on to your desktop

### B/W Laser Printers

Crashing prices of colour printers make black and white look very plain

### 100 MB ZIP Drives

250 MB ZIP drives with their backward-compatibility have left the 100 MB ZIP drives out in the cold.

### ISA BUS

With PCI and AGP providing higher bandwidth, ISA is too slow an option to consider.

COLD