

## Tech Focus

# Ekush OS, an alternative to MS Windows

RIDWAN A KABIR

**E**KUSH Operating System (OS), a projected alternative to Microsoft Windows and a clone to Windows NT, is in its early stages of development.

The new system will be based on open source codes. Many of the developers on the 30-member development team, led by Shamsuddoha Ranju, senior executive engineer of Siemens Bangladesh Ltd, are based in the US and work at IBM, Microsoft and Linux.

A press conference sponsored by Datahead Pvt. Ltd was held on October 13 at the Bangladesh Computer Samity (BCS) conference to introduce the new system.

At the press conference, Ranju explained that computer users have very few choices other than Microsoft OS, which is the most acknowledged OS throughout the world at present. Several efforts to build a new OS have been made in the past, but these systems had not achieved full-functional status

as result of technical difficulties. "Thus we decided to take the effort to develop a clone of Windows that will run all existing Windows applications," says Ranju.

A notable advantage of Ekush OS is its size, which is a mere 40 to 50 MB. The development team holds high hopes that this will allow Ekush to achieve a vast market in the portable electronics sector.

"We are already receiving proposals from some internationally-acclaimed PDA companies," cites Ranju.

The OS will come with several Bangla fonts in addition to the regular font types. "Once the Unicode for the Roman fonts are functional, it will just be a matter of user interface translation," says Ranju.

"While the Roman-key user types in English, the mid layer translation from Unicode to non-Unicode will define each stroke in Bengali," he added.

The user of Ekush OS will find a shell for a Bengali version programming language easier than that of Visual Basics, where

he or she will use Bengali word commands instead of the regular English version commands.

Sun Microsystems, one of the leading US-based software companies, has offered to provide the Ekush development team with any Java support applets in due exchange for an Ekush OS version that provides full support for Sun's Java applications.

Ekush will carry out implementation of other different subsystems such as Linux and Mac. A 3-D desktop environment will further attempt to build a better user experience. Ekush has a built-in 32-bit VGA driver, which in case of a faulty driver will replace it as default.

The kernel for Ekush, the device driver, as well as system executives and application layer is based on the existing Windows 32-bit model.

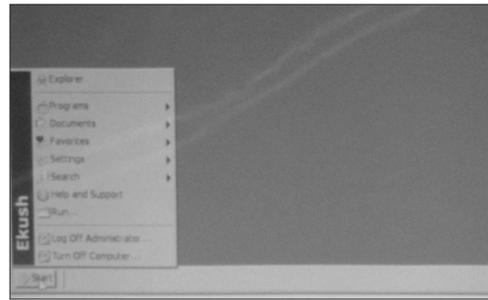
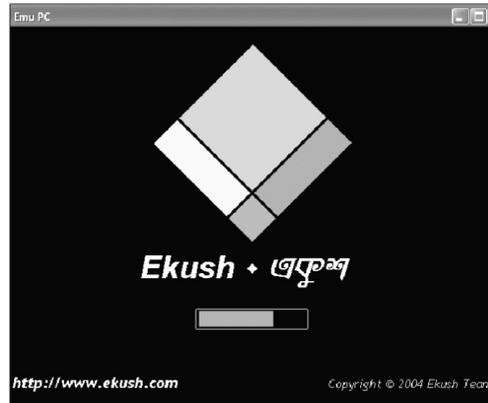
"Because of XP compatibility, all device drivers, service components and applications will be run on Ekush OS," states Ranju. As Ekush is being built on XP technology, it will also provide a full support to MS 'Longhorn' due

in 2006. Ranju cited that the team will wait until the final version of the OS to put a price tag on it. The first version of Ekush is currently available from [www.ekush.com](http://www.ekush.com) as a free download.

Licensing is one of the problems the Ekush team is expecting to face. As the project is not based in the US, Ekush OS will not be able to obtain the license banner of General Public License (GPL), the US-based licensing company.

In Bangladesh a local patenting regulation does not exist. The Ekush development team are hoping a new local governmental regulation on licensing, currently in the works, will pass before the launching of its final product.

The Ekush development team, most of whose members reside in the US, have set a 24-month road map at the end of 2003. The team already has a list of all the APIs of Windows XP, but most of next year will be spent on rebuilding their own versions of these APIs until the final release, expected at the end of 2005.



Clockwise from Left: A screenshot of the startup screen of the Ekush OS, Shamsuddoha Ranju making a presentation on the OS at the press conference, a screenshot of the Ekush boot manager and a glimpse of the OS's desktop from Ranju's presentation.

## Photo Tech

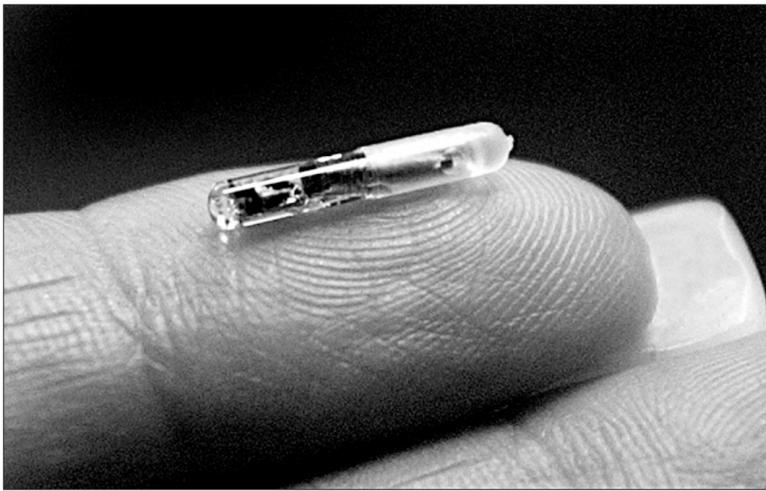


PHOTO: AFP

This file photo taken on May 10, 2002 shows the VeriChip, a product of Applied Digital Solutions, Inc. VeriChip, the world's first implantable radio frequency ID microchip for human use, has been cleared for medical use in the United States by the FDA, the company said on October 13, 2004. The system consists of an implantable microtransponder, an inserter, a proprietary hand-held scanner, and secure database containing patient-approved health-care information. About the size of a grain of rice, VeriChip is inserted under the skin in a brief outpatient procedure. Once in, it cannot be seen by the human eye. To read what is in the Veri Chip, a unique 16-digit verification number must be scanned by a company instrument. The captured number in turn links to a database via encrypted Internet access. The health-care information or history stored on the chip can then be read by a doctor, nurse, paramedic or police officer.

## Tech News

# Google's new PC search tool poses risks

AP, New York

**P**EOPLE who use public or workplace computers for e-mail, instant messaging and Web searching have a new privacy risk to worry about: Google's free new tool that indexes a PC's contents for quickly locating data.

If it's installed on computers at libraries and Internet cafes, users could unwittingly allow people who follow them on the PCs, for example, to see sensitive information in e-mails they've exchanged. That could mean revealed passwords, conversations with doctors, or viewed Web pages detailing online purchases.

"It's clearly a very powerful tool for locating information on the computer," said Richard M. Smith, a privacy and security consultant in Cambridge, Mass. "On the flip side of things, it's a perfect spy program."

Google Desktop Search, publicly released Thursday in a "beta" test phase for computers running the latest Windows operating systems, automatically records e-mail you read through

Outlook, Outlook Express or the Internet Explorer browser. It also saves copies of Web pages you view through IE and chat conversations using America Online Inc.'s instant-messaging software. And it finds Word, Excel and PowerPoint files stored on the computer.

If you're the computer's only user, the software is helpful "as a photographic memory of everything you've seen on the computer," said Marissa Mayer, director of consumer Web products at Google Inc.

The giant index remains on the computer and isn't shared with Google. The company can't access it remotely even if it gets a subpoena ordering it to do so, Mayer said.

Where the privacy and security concerns arise is when the computer is shared.

Type in "hotmail.com" and you'll get copies, or stored caches, of messages that previous users have seen. Enter an e-mail address and you can read all the messages sent to and from that address. Type "password" and get password reminders that were



PHOTO: AP

Josh Inman, right, works on sending an email at Alt.Coffee internet cafe in the East Village, New York on October 18.

sent back via e-mail.

Acknowledging the concerns, Mayer said managers of shared computers should think twice about installing the software until Google develops advanced features like password protection and multi-user support.

Users can also surf on non-IE browsers like Opera and Mozilla, although the software may index

Web pages already stored before the software gets installed.

Managers of public access terminals can also install software or deny users administrative privileges so they can't install unauthorized programs, such as Google's. In fact, many libraries and cybercafes already do so.

The new Google tool would

not only aid people in spying on past patrons on public PCs. At home, users could record their kids' instant messaging conversations or view a spouse's e-mail. In the office, employers could index what their workers are up to.

If each user has a separate login to Windows, Google Desktop Search will be stymied, however. That's because only one person can install and use the software on a given computer.

The power of Google's software relies on centralizing what's already saved on computers; most browsers, for instance, have a built-in cache that keeps copies of Web pages recently visited. The difference is that Google's index is permanent, though users can delete items individually. And the software makes all the items easier to find.

The software can also betray users, said Annalee Newitz, policy analyst at the Electronic Frontier Foundation. Delete an e-mail or file, yet a copy remains on Google's index.

## Tech Anniversary

# The birthplace of the World Wide Web turns 50

AP, Geneva

**A** European laboratory that was the birthplace of the World Wide Web and home of Nobel prize-winning developments in the quest to understand the makeup of matter wished itself a happy 50th birthday Tuesday.

Spain's King Juan Carlos and France's President Jacques Chirac were among representatives of the 20 member nations attending ceremonies commemorating the founding of the European Organisation for Nuclear Research, which goes by its original French initials, CERN.

"When the 12 founding member states ratified the CERN convention Sept. 29, 1954, they gave the new organization a mission to provide first class facilities, to coordinate fundamental research in particle physics and to help reunite the countries of Europe after two world wars," said CERN's Director-General Robert Aymar.

After the U.S. Congress pulled the plug on the construction in Texas of the proposed Super-conducting Super Collider in 1993, CERN became the focus of much of the world's research into matter and into understanding the origins of the universe.

Many scientists from the United States, which still has major rival laboratories, are among the hundreds of physicists who take turns conducting experiments with the particle accelerators underground on the French-Swiss border in Geneva.

Other observer nations whose physicists work at CERN include India, Israel, Japan, Russia and Turkey.

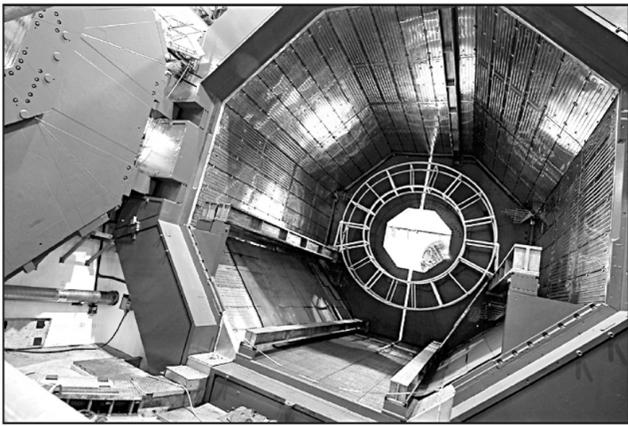


PHOTO: AFP

This undated handout picture released by the European Council for Nuclear Research (CERN) shows a Large Ion Collider Experiment, dubbed ALICE, a 24-meter-high cavern which houses an enormous, tube-shaped magnet that weighs as much as the Eiffel tower and used to contain and monitor the man-made Big-Bang, at a underground laboratory under the French Swiss border, in Saint Genis.

CERN scientists won the Nobel physics prize in 1984 for the discovery of two subatomic particles and in 1992 for the development of a new way to track particles.

In 1990, British scientist Tim Berners-Lee was working at CERN when he proposed a way of linking related pieces of information

across the Internet in what became the World Wide Web.

The CERN member states are Austria, Belgium, Britain, Bulgaria, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, the Netherlands, Norway, Poland, Portugal, Slovakia, Spain, Sweden and Switzerland.

## Tech News

# New planets may take longer to evolve

AP, Los Angeles

**I**T may take much longer than scientists have thought for violent turbulence to turn grains of space dust into new planets.

A NASA telescope recently discovered evidence that the most violent part of the process in forming an Earth-sized planet the collisions between colossal chunks of rock may last hundreds of millions of years instead of 10 million years, scientists said Monday at NASA's Jet Propulsion Laboratory in Pasadena, Calif.

Scientists have long believed that planets are formed when the dust in a disc-like formation around a young star begins to clump. Some of the clumps eventually grow to the size of mountains and smash into each other, forming larger embryonic planets.

These, in turn, collide with one another, creating more dust and rocky chunks. In some theories,

this brutal stage of planet growth lasts perhaps 10 million years or so — an eye blink in astronomical terms.

This is followed by a long, steady, quieter cleanup period in which the unused dust dissipates.

But the new findings indicate the violent phase may last much longer.

NASA's infrared Spitzer Space Telescope revealed that some dust rings around stars remained big and bright even though their stars were 100 million to 200 million years old.

Scientists said the discs couldn't have survived that long unless violent collisions between embryonic planets and gigantic chunks of rock were constantly replenishing them.

"Now we will have to rewrite the textbooks. ... The discs can last much longer than previously thought," said Jonathan Gardner, a Spitzer program scientist in Washington, D.C.



This animation illustrates a massive collision between rocky, embryonic planets as big as mountain ranges. Such collisions form the basis of the planet-building process.

## Plastic Diplodocus

Visitors touch a giant 27-meter-long plastic reproduction of a diplodocus dinosaur on October 15, in front of the tropical garden in Potsdam near Berlin, at the opening day of an exhibition called "Dinosphere - in the shadow of the saurians". The exhibition will be open for the public until January 15, 2005.

PHOTO: AFP

