



TECHFOCUS

Introducing digital jewellery

EDWARD APURBA SINGHA

IN the near future jewellery will enhance your outlook in a quite different way and at the same time enable you to make phone calls and control devices.

Yes, it is not a dream but an amazing reality of this digital age. Basically, jewellery adorns the body and has little significance in real life activities. Researchers realised this setback and with the help of information technology they are trying to conquer this limitation. As a result, they created prototypes of digital jewellery that incorporated several hi-tech facilities.

Researchers took this initiative because computing power nowadays gradually increase whereas size goes down day by day. Today, manufacturer can place millions of transistors on a microchip, which can be used to make small devices that can store massive amount of data. International Business Machines (IBM) and other manufacturers already created some prototypes of digital jewellery.

In this article, I have highlighted several digital jewellery prototypes that will give an extraordinary



flavour to the jewellery lovers.

Ultra modern cell phone

In future cell phones will not appear in their traditional form instead they will be broken up into some basic components and packaged as various pieces of digital jewellery.

Each piece of jewellery will contain a fraction of the components found in conventional mobile phones. Collectively these components will function like a conventional cell phone.

IBM has developed a prototype of a cell phone that consists of several pieces of digital jewellery that communicate with each other through Bluetooth technology to perform any particular function.

Basically earrings, necklace, ring and bracelet are the building blocks of ultra modern cell phone. Speakers embedded into these earrings will be the phone's receiver and user will talk through the microphone embedded into the necklace.

Ring is the most interesting part of the whole set-up. The ring contains light-emitting diodes (LEDs) that flash to indicate an incoming call. It can also be programmed to flash different colours to identify a particular caller or indicate the importance of a call. Bracelet equipped with a video graphics array (VGA) display; this wrist display could also be used as a caller identifier that flashes the name and phone number of the caller.

During dialling a person will use his/her bracelet that integrates keypad and dialling function. On the other hand voice-recognition software will be used to make calls, a feature that is already commonplace in many of today's cell phones. Simply pronounce the name of a person you want to call and the phone will dial that



person. IBM is also working on a miniature rechargeable battery to power these components.

High-end display

All of us are accustomed with CRT or LCD monitors. These technologies are most common at this moment and gained huge popularity. But in real sense they do not give you mobility. Precisely speaking, you cannot instantly carry your monitor at particular location, there are always laptops and palm tops, but that's another story.

Several companies, including IBM and Charmed Technology are working on ways to create a head-mounted display. IBM is also working to shrink the computer mouse to the size of a ring and create a wrist-worn display.

IBM is working on mouse-ring that will use the company's TrackPoint technology to wirelessly move the cursor on a computer-monitor display. You're probably most familiar with TrackPoint as the little button embedded in the keyboard of some laptops. IBM Researchers

have transferred TrackPoint technology to a ring, which looks something like a black-pearl ring. On top of the ring is a little black ball that users will swivel to move the cursor, in the same way that the TrackPoint button on a laptop is used.

This TrackPoint ring will be very valuable when monitors shrink to the size of watch face. In the coming age when ubiquitous computing will dominate the computer world, displays will no longer be tied to desktops or wall screens. Instead, wearable display will be available like a pair of sunglasses or a bracelet. Researchers are overcoming several obstacles facing these new wearable displays, the most important of which is the readability of information displayed on these tiny devices.

Charmed Technology another manufacturer of digital jewellery outdistances IBM by marketing its digital jewellery, including a futuristic-looking eyepiece display. The eyepiece is the display component of the company's

Charmed Communicator, a wearable, wireless, broadband-internet device that can be controlled by voice, pen or handheld keypad. The Communicator can be used as an MP3 player, video player and cell phone. The Communicator runs on the company's Linux-based Nanix operating system.



Java ring

In recent time security is a big concern for us. Naturally we bound to take different measures in order to ensure security. These create hassle in our daily life. Dallas Semiconductor is developing a new Java-based, computerised ring that will automatically unlock

doors and log on to computers.

Java Ring, unveiled at JavaOne Conference, has been tested at Celebration School, an innovative K-12 school just outside Orlando, FL. The rings given to students are programmed with Java applets that communicate with host applications on networked systems. Applets are small applications that are designed to be run within another application.

Java Ring is a stainless-steel ring, 16-millimeters (0.6 inches) in diameter that houses a 1-million transistor processor, called an iButton. The ring has 134 KB of RAM, 32 KB of ROM, a real-time clock and a java virtual machine, which is piece of software that recognises the Java language and translates it for the user's computer system.

Java Ring programmed to store information that is utilise to pay for lunches, automatically unlock doors, take attendance, store a student's medical information and allow students to check out books. All of this information is stored on the ring's iButton. Students at Celebration School simply press the signet of their Java Ring against the Blue Dot receptor, and the system connected to the receptor performs the function that the applet instructs it to.

Mobile computing redefine the present computing trend and give us freedom. Digital jewellery is a new form of mobile computing and in the next age of computing, we will see an explosion of computer parts across our bodies, rather than across our desktops. The underlying reason to invent digital jewellery is to break the dominance of personal computers and as well as make computer elements entirely compatible with the human form.

Reference: howstuffworks.com



Turbo Pascal

Turbo Pascal is a complete development system that includes a compiler and an Integrated Development Environment (IDE) for the Pascal programming language running mainly on MS-DOS, developed by Borland under Philippe Kahn's leadership. The name Borland Pascal was generally reserved for the high end packages (with more libraries and standard library source code) whilst the original cheap and widely known version was sold as Turbo Pascal. The name Borland Pascal is also used more generically for Borland's dialect of Pascal.

TECHNEWS

Application fever at Oracle

STARTECH DESK

LAST week Oracle announced new versions of its five major product lines at a global event titled 'Applications Unlimited' held on 6 continents, says a press release.

With the new releases, Oracle now offers role-based analytics, comprehensive application management, integration, search, master data management, and XML-based reporting capabilities, with the introduction of Oracle E-Business Suite Release 12, Oracle's PeopleSoft Enterprise Release 9.0, Siebel CRM 8.0, JD Edwards Enterprise One 8.12 and JD Edwards World A9.1.

In developing these new releases, Oracle consulted directly with customer user groups to define customer-driven enhancements and ensure these products effectively address customer needs.

"Today is an important day, as we release five significantly enhanced product families. These releases are proof that Oracle is delivering on its strategy to protect and extend customers' current investments in Oracle's leading horizontal, specialty and industry suites," said Oracle President Charles Phillips.

"Additionally, with the 'Applications Unlimited' program, Oracle is providing best-in-class infrastructure technology that delivers next-generation capabilities today, and we are giving our customers the choice as to when they upgrade without having to re-license their applications. This is a first in the software industry," Phillips continued.

In the latest version of its E-Business suite, the company has released 18 new products and 2443 new enhancements.

Its PeopleSoft Enterprise Release 9 contains two new products and 1478 enhancements that apparently offer customers a standards-based plat-

form to address the challenges of disparate technologies and applications.

Meanwhile, the new release of the Siebel CRM suite offers ten new products and 366 enhancements that comes bundled with a new task-based user interface, enterprise search capabilities, SOA-enabled CRM and embedded intelligence driving real-time insight at the moment of customer interaction.

The first major release of JD Edwards World in ten years, this new version offers four new products and 1297 enhancements.

Delivered in the spring of 2006, the latest release of JD Edwards EnterpriseOne delivered 5 new products, including a new Operational Sourcing and three new modules for the food and beverage industry, as well as 291 enhancements.

A key component of Applications Unlimited is delivering value to customers by allowing them to leverage next-generation technology within their current investments through integration and certification with Oracle's leading database and Oracle Fusion Middleware technology.

Also at the event, the company outlined Oracle Fusion Applications, Oracle's next-generation application suite. Based on Oracle Fusion Middleware, Oracle Fusion Applications are designed to be the industry's first, complete standards-based, SOA built application suite. Leveraging Web 2.0 design principles, Oracle Fusion Applications intend to deliver dramatic increases in both user and partner productivity, while delivering significant reductions in cost of ownership.

TECHNEWS

ASUS P5GZ-MX

Affordable solution for Core2 processing

STARTECH DESK

GLOBAL Brand Pvt. Ltd, the authorised local representative of Asus recently introduced P5GZ-MX model of Asus motherboard in the Bangladesh market, says a press release.

P5GZ-MX with Intel 945GZ chipset inside supports Intel dual-core CPU and features 800MHz FSB, PCI Express architecture, Serial ATA interface, high performance integrated graphics engine, dual-channel DDR2 memory, and HD Audio CODEC. It especially supports Intel

EM64T and EIST technology, which provides you a 64-bit environment and an energy saving solution. P5GZ-MX is the most affordable all in one solution for Intel Core2 Processors with Intel 945GZ chipset inside. Some other special features include -- Intel Graphics Media Accelerator 950 with up to 224MB shared Video memory, 1 x PCI-E x16 @ x4 speed, 1 x PCI-E x1, 2 x PCI 2.2, 1 x UltraDMA 100/66/33, 4 x Serial ATA 3Gb/s, Marvell Gigabit LAN controller, 6-Channel High-Definition Audio CODEC and 8 x USB

2.0 ports. The motherboard and its



of Hazardous Substances (RoHS). This is in line with the Asus vision of creating environment-friendly and recyclable products and packaging to safeguard consumers' health while minimizing the impact on the environment.

PHOTOFOCUS

3D DANCERS

Dancers appear to perform on stage in a 3-D holographic display at the Yang Ling Tomb for the Han Dynasty's Jing Di emperor, who ruled from 188 to 141 B.C., on the outskirts of Xian in western China's Shaanxi province. Famous for its terra-cotta warriors, Xian was home to the ruling houses of the Qin, Han, Sui and Tang (618-907) dynasties. While modernising like the rest of China, Xian's ancient history and wealth of archaeological findings remain its top draw as one of the country's top tourist destinations.

PHOTO: AFP

