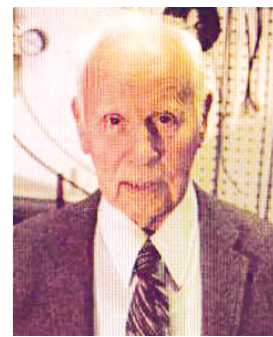


George Stibitz was a Bell Labs researcher mostly known for his 1930s and 1940s work on the realization of Boolean logic digital circuits using electromechanical relays as the switching element. In 1937, Claude Shannon produced his master's thesis at MIT that implemented Boolean algebra using electronic relays and switches for the first time in history. In November of 1937, George Stibitz, then working at Bell Labs, completed a relay-based computer he dubbed the "Model K" (for "kitchen", where he had assembled it), which calculated using binary addition. Bell Labs thus authorized a full research program in late 1938 with Stibitz at the helm. Their Complex



TECHSPOTLIGHT

It's finally here!

Microsoft releases SQL Server 2005, Visual Studio 2005 and BizTalk 2006 in Bangladesh market

NAFID IMRAN AHMED

It seems the first official visit of Bill Gates, chairman and chief software architect of Microsoft Corporation, has sparked off a lot of activities at Microsoft Bangladesh. Only a week into Gates' half-day trip to Bangladesh, Microsoft has arranged its first official product launch in the country.

Simon Piff, regional solutions manager, Enterprise Server Marketing Group of Microsoft Asia Pacific, heralded the arrival of SQL Server 2005, Visual Studio 2005 and BizTalk 2006 in the local market at a special 'Ready to Respond' event at the Bangladesh-China International Conference Centre on December 12.

Both SQL Server, which was last updated five years ago, and Visual Studio 2005 are critical releases for Microsoft, as it gears up for the debut of Windows Vista (Codename Longhorn) within the next few years. The development tools, combined with .NET Framework, will usher in the next-generation applications focussed on connectivity and streamlining business processes.

Specifically, Visual Studio 2005 boasts improved performance and security to build what Microsoft calls "enterprise-grade" applications, along with a new Team System element to facilitate collaboration within a development group.

Piff admitted that SQL Server 2005 was "a little bit long in coming," but emphasised the major changes in the release. The database can now handle up to 93,000 concurrent users, and integration with .NET Framework 2.0 brings better performance.

Business intelligence tools has been added in SQL Server 2005, such as the built-in reporting and data analysis tools and according to Piff it will soon launch Business Scorecard Manager 2005 to extend that functionality. SQL Server will also offer better integration with Microsoft Office and Visual Studio.

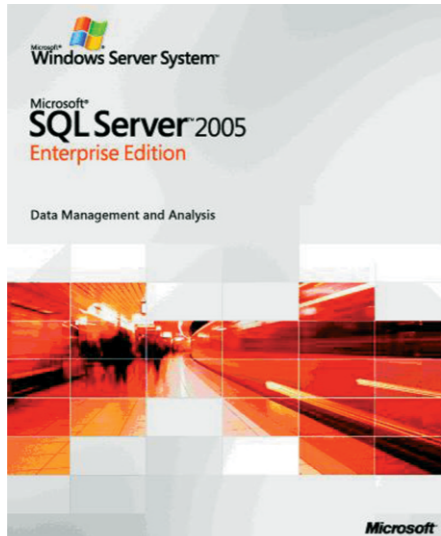
Visual Studio 2005

Visual Studio 2005 ships in several different editions. At the low end, the Visual Studio Express Editions provide a simplified and streamlined development environment targeted at specific languages or application types. These editions are intended primarily for learning and experimenting with .NET application development and can be downloaded free of cost.

The Visual Studio 2005 Standard



Simon Piff, regional solutions manager, Enterprise Server Marketing Group of Microsoft Asia Pacific makes his keynote address at the 'Ready to Respond' event.



Edition lets one build department-grade Web applications as well as Windows, console, mobile, and client-server applications, using Visual Basic, C#, J#, or C++.

For professional developers, Microsoft offers two editions. The Visual Studio 2005 Professional Edition, targets all the application types discussed above, and adds remote server development and debugging, 64-bit capability, and a full-



featured development environment. The Visual Studio 2005 Tools for the Microsoft Office System, is intended primarily for developers building Office automation applications. This version does not include the J# or C++ languages, 64-bit support, or support for Mobile projects, but includes a Windows Server 2003 Developer Edition, and Microsoft Access 2003 Developer Extensions and a runtime license. Both Professional editions include SQL Server

Developer Edition.

Enterprises should consider Visual Studio Team System Editions, which basically integrates application planning and lifecycle management tools with Visual Studio Professional Edition. Finally, those who need all the features can buy Visual Studio Team Suite, which bundles all three Team Editions into one package.

BizTalk Server 2006

BizTalk Server 2006 adds support for in-order message processing, transactional pipelines, non-atomic interchange, SharePoint Services adaptors, Web Services Enhancements 2.0, POP3, and improved SMTP support for attachments. Simplified management and deployment, extended Business Activity Management (Bam), an improved Orchestration Designer, better flat-file import, project import/export capabilities, and support for bulk operations round out this update.

In an exclusive interview with the StarTech, Simon Piff said this was his second visit to Bangladesh. The first time he came here was in July 2004 to address the server market, just before Microsoft Bangladesh was launched.

"Even at that time I was very impressed with the degree of investment that was being planned; there was a lot of activities going on in the market, especially in the telecommunications sector," said Piff.

"This is the first time we are launching any product officially in Bangladesh. And within the past 18 months that we have been here, we did not have any new products available. When these new products arrived, we thought of treating Bangladesh like any other market and planned this launch," he added.

Piff also thinks Bangladesh has a vibrant market and this launch is very important for it as well as Microsoft.

When asked if Microsoft has a special pricing policy for the Bangladesh market, Piff said there is no pricing policy for the server products at present and it has a price tag based on the standard pricing policy, which is the same globally.

As previously announced, Microsoft has reworked its product editions for SQL Server 2005. However, Microsoft has a free downloadable "Express" version of SQL Server 2005 for developers and for non-commercial use.

TECHNEWS

ICNEWS 2006

First confce on next generation wireless systems next month

SYED TASHFIN CHOWDHURY

NORTH South University (NSU) will be hosting the first Institute of Electrical and Electronic Engineers (IEEE) conference in Dhaka next month.

The conference titled International Conference on Next Generation Wireless Systems (ICNEWS 2006) will be held at Hotel Sheraton from January 2-4, 2006.

Three major personalities in the field of wireless systems -- Dr Vijay K. Bhargava, professor and head, Department of Electrical and Computer Engineering, University of British Columbia (UBC), Canada, Dr Khaled Ben Letaief, professor and head, Department of Electrical and Electronic Engineering, Hong Kong University of Science and Technology and Dr Moe Z. Win, Charles Stark Draper Chair Professor, Massachusetts Institute of Technology (MIT) is expected to be present at the event.

"As such, we would like interested individuals of Bangladesh to register for this conference," said Abul L Haque, faculty, Computer Science and Engineering Department, NSU and the Treasurer of the event.

Haque also pointed out that besides these three scientists, the conference will also be attended by an impressive list of noted scholars, IT personalities and executives from well-known companies, from all over the world.

"We have invited professors from renowned universities in USA, Canada, Australia, Italy, Singapore, Thailand, India and Bangladesh. There would also

be senior officials from global companies like Samsung, Texas Instruments, Nokia, Harris Corporation, IBM and also from some of leading local companies," he added.

The primary objective of the conference is to provide a networking opportunity between the local wireless community and the world-class wireless researchers and entrepreneurs.

"The conference will also provide a positive exposure about the Bangladeshi wireless community to the rest of the

wireless networks and wireless security and applications.

Business session would have topics like wireless backhauling and last mile connectivity, WiFi, Mesh, Networking and WiMax, wireless security, location based technologies, RFID and other services and radio spectrum in Bangladesh.

Wireless vision, outsourcing opportunities and a brainstorming session would be included in the plenary session of the conference.

There would also be an accompanying exhibition where participating organisations will showcase their technical and business potential through their products and services.

Six tutorial sessions, comprising of half-day and full day sessions would be held prior to the conference, on December 2.

"The tutorials would be conducted by Information technology (IT) related individuals from home and abroad," mentioned Haque.

The organisers of the conference are already receiving enthusiastic responses through registration.

"Already 35 individuals from foreign countries have registered for the conference. We had to extend our deadline for registration to December 22, for the convenience of others, who want to attend the conference," informed Haque.

Some renowned global and local companies and academic institutions will be sponsoring the event.



world to facilitate investment in the country and identify innovative wireless communication system application for the Bangladeshi population," said Haque, while discussing about the objectives of the conference.

The conference would have three sessions consisting of technical, business and plenary.

Technical session would include important topics such as wireless transmission and access, digital signal processing (DSP) and computing,

TECHFOCUS

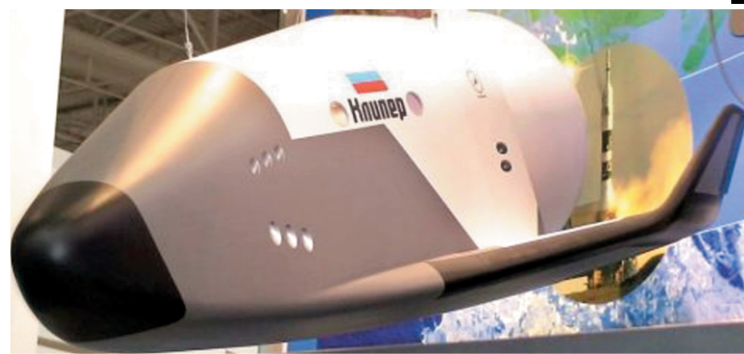
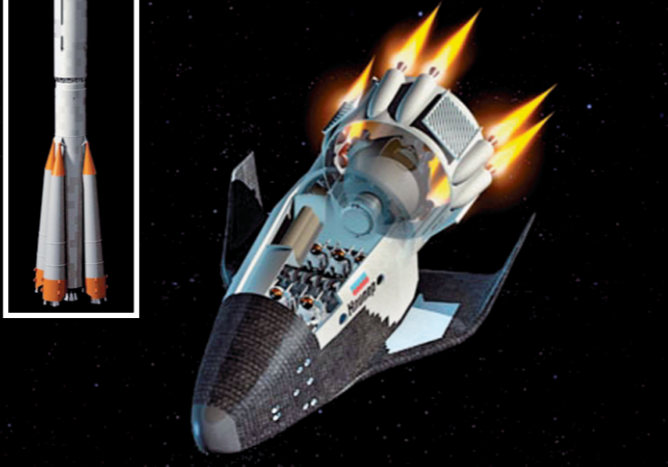
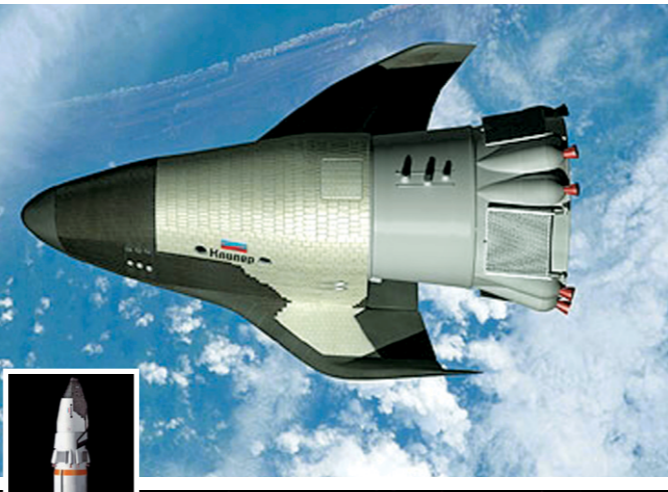
The Clipper Russia's new manned spacecraft

AHMED ASHIFUL HAQUE

RUSSIAN engineers have begun working on a new spacecraft that would be twice as big and spacious as the existing Soyuz crew capsules. With Nasa's shuttle still grounded over safety concerns and given the unanswered questions about its replacement, the Crew Exploration Vehicle, which won't be ready to fly until at least 2012 the European Space Agency is considering an option to buy its own ride to space. The European Space Agency (Esa) plans to request \$60 million from its member states to help Russia prepare its new, reusable

notes Esa official Manuel Valls.

The Russian Federal Space Agency showed off a full-scale mock-up of the craft at the Moscow International Air Show in last August. If all goes well that is, if there's the funding design studies



spaceship, the Clipper (or Klipper), for a crewless test flight by 2011 and a manned flight by 2012.

The six-person Clipper is designed to replace Russia's three-person Soyuz capsule, which has been in operation since the 1960s and is currently the only reliable transport to the International Space Station. Lighter than Nasa's shuttle and more powerful than the Soyuz, the Clipper will be more than just a taxi to the International Space Station (ISS). "It could even go to the moon,"

of the Clipper could begin in early 2006.

The 13-ton Clipper is nearly twice the weight of the Soyuz capsule and thus requires a stronger launcher. The 21-foot-long passenger cabin and re-entry vehicle will accommodate six crew members (two pilots and four other astronauts or tourists), plus 1,100 pounds of cargomore than 10 times that of the Soyuz.

Energia, the developer of the Soyuz spacecraft, has been working on the brand-new vehicle

for a few years and it looks like they have been doing a good job. The craft might be a very nice and cost effective reusable re-entry vehicle: something the shuttle always wanted to be but never actually was.

The craft's exterior consists of heat-resistant ceramic panels that will act as a heat shield designed to endure several flights before

requiring replacement. The 13-foot-long detachable habitation module contains life-support systems, including a toilet, as well as the docking port for the International Space Station. The ship's instrument module houses the power thrusters to separate the Clipper from its launcher and to manoeuvre the spacecraft. It also contains the electrical system,

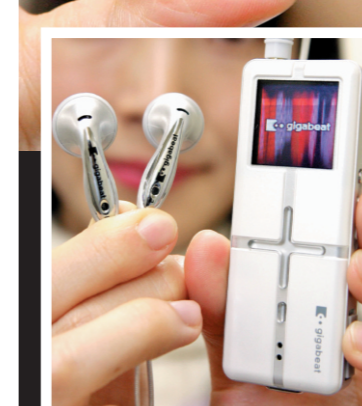
which is powered by extendable solar arrays. Both the instrument module and the habitation module are jettisoned before re-entry. The craft's stubby wings enable the pilot to steer during the descent and make a controlled landing on an airport runway. In case of an emergency, parachutes ensure that the Clipper can land safely on the plains of central Russia.

Although the Soyuz is currently used for supplying the International Space Station after the US shuttle fleet was grounded pending investigation into the destruction of the shuttle Columbia during its return to Earth in February 2003, it isn't much efficient. For each launch, it costs half as much as the Shuttle does, but only delivers one-fifth of the cargo. This means it takes the Soyuz five flights and double the amount of money to deliver the same amount of cargo as the shuttle. That Clipper would be much more efficient in this job.

However, what many wanted to see was some agencies develop a new space plane or a space craft with the wings that are retractable or a cheap craft that could go on a mission to the planets.

At the current rate of development, the United States probably wouldn't have an alternative to the shuttle for another 10 to 15 years. If that happens, the Clipper would be a sound, practical design for an alternative vehicle. This Russian design has been quiet smart and investment in its future could be the key to choosing what the future of space will be. However, there have been a lot of great efforts that never faced the light due to financial and political reasons. Only time will tell what the future of the Clipper would be.

PHOTOTECH



GIGABEAT P5

Employee for Japanese electronics giant Toshiba, Midori Suzuki, displays the new digital audio player "gigabeat P5", equipped with 512MB of flash memory, a 1-inch OLED display and an FM radio tuner, with a body measuring 31.9x82.0x13.2mm and weighing only 50gms, at the company's headquarters in Tokyo on December 12. Toshiba will put it on the market from December 16 with a price of 116.5 USD.

PHOTO: AFP

TECHNEWS

Workshop on prospects and problems of mobile and land phones

STARTECH DESK

A workshop on 'Prospects and Problems of Mobile and Land Phones in Bangladesh' laid emphasis on the promotion of mobile and land phone services in Bangladesh to help alleviate poverty and contribute to fast economic development of the country. It recognised the prime movers as the government, private telecom sectors, academia, researchers and technical personnel. It called for a forward looking regulatory policy of the government and transparent service oriented involvement of private sector for its expansion.

The School of Engineering and Computer Science, Independent University, Bangladesh (IUB) held the workshop on December 8 at its Baridhara campus, says a press release. Former chairman of Bangladesh Telecommunication Regulatory Commission (BTRC) Margub Morshed was the chief guest who called on the researchers to resolve the existing technical problems which the country is facing in mobile and land phone sector and commented that the day is not very far when the difference between mobile and land phones will disappear.

In the technical sessions, seventeen research papers were presented by the experts from the telecommunication sectors, both public and private, and researchers from various universities and institutions some of which are Dhaka University, Shahjalal University of Science and Technology, Rajshahi University of Engineering and Technology, East West University, The University of Asia Pacific, Islamic University of Technology, Grameen Phone and Grameen Telecom apart from Independent University Bangladesh (IUB). The papers have been published as proceedings of the workshop.