RFID centre ready for transmission

A Radio Frequency Identification (RFID) centre has been launched to help promote RFID technology and increase its adoption rates here.

RFID is a method of using radio waves to identify people or objects by storing information on a microchip.

The National RFID Centre, currently located at the Singapore Institute of Manufacturing Technology (SIMTech) in Nanyang Technological University (NTU), is backed by government agencies such as the Economic Development Board and the Information Development Authority of Singapore. It will be relocated to Fusionpolis in 2008.

The centre aims to help companies realise and reap the technical and financial advantages of adopting RFID. It will do this by pooling resources and shortening the life cycle for each deployment of the technology, addressing the issues of critical returns-on-investment companies have to deal with.

The centre will focus on five key industries: Manufacturing, logistics, retail, healthcare and hospitality. Activities in the pipeline include pilot projects in adopting the technology, conducting training and showcasing the latest solutions.

At the centre’s opening, Mr S Iswaran, Minister of State for Trade and Industry, said it was important for the country to promote early adoption of the technology. He noted that a significant portion of the world’s manufacturing output will be produced in Asia, and that Singapore needs to be RFID-ready to be the ideal location for such opportunities in the supply chain management industry.

According to a March report by Frost and Sullivan, the revenues of the Singapore RFID market totalled $8 million in 2004 and could reach $15.8 million by 2009.

Get a grip on mixed reality

NUST-developed new media is stirring up the real world

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IMAGINE playing a game with your pet dog, cat or even hamster. Out of this world? Not quite.

Singapore’s Mixed Reality Lab at the National University of Singapore (NUS) is pushing the envelope on interactive new media technologies — and getting noticed for it, too.

Dr Adrian David Cheok, 35, director of the lab, will make an appearance on One Step Beyond, a Discovery Channel series on the technology of the future. He is being featured for his work on mixed reality — a way of interacting with virtual worlds in a more natural and physical way, rather than through clunky interfaces such as a keyboard or mouse.

“The problems with virtual reality is that you don’t have any contact with the real world,” said Dr Cheok in an interview with Tomy. “With mixed reality, what we do is take the virtual objects and make them part of our real environment. Once that happens, you can use physical objects to interact with virtual objects — it’s taking the virtual world and making it part of our real world.”

The idea isn’t as far-fetched as you might think. If you’ve played games with the Sony PlayStation 2 and its EyeToy camera peripheral, you’ve already experienced mixed reality.

Mixed reality is how we should be interacting with computers, said Dr Cheok. “Our most natural interaction, from the day we are born, is to pick things up, touch them and move them about — interacting physically with them. The way we interact with people — through talking, gestures, actions and movements — that’s the way we should interact with the virtual world. We want to make it so easy that anyone can use a computer without even realising that they’re using a computer.”

There is a whole host of applications supporting mixed reality, especially in the gaming, education and military industries. The NUST Mixed Reality Lab has just finished working with the Defence Science and Technology Agency on a project that can equip soldiers with wearable computers that feed them useful information so they won’t be lost in the heat of a battle.

One of its latest in-house developed gaming projects, Age Invaders, even bridges the generation gap as it allows children to play games with the elderly. Players get on a physical game board and fire virtual rockets at one another. The older players are given more time to react to the slower rockets fired by the younger players while the younger ones have to react much faster to escape from the high-speed rockets fired by the older players. This helps to balance the different physical abilities across generations.

In the near future, Dr Cheok sees mobile phones becoming a mixed reality interface because they come with ample processing power and, more importantly, the cameras they come with are suitable for mixed reality applications. A Korean mobile company has approached the lab for help in developing mixed reality applications for its phones.

The lab is collaborating with other universities such as the Massachusetts Institute of Technology and the University of Southern California on mixed reality projects and technologies. It is also applying its expertise to the new NUST Hollywood Lab in Los Angeles, California, and working with major Hollywood movie studios on games and other entertainment applications.

Dr Cheok noted that with the help of gaming consoles, more people are experiencing mixed reality. He is encouraged to see young people taking more of an interest in it, thus helping mixed reality — a new interactive medium — cross over into the mainstream.

Said Dr Cheok: “Interactive media is so important now it’s developing new industries for Singapore and what we’re finding is that a lot of young people are very eager to work in an area where it’s not just about pure technology but, where they can also express their creativity.”

One Step Beyond premieres on Thursday, 8pm, on the Discovery Channel.

HELP DESK

ASK TODAY’S IT EXPERT

In a fix over IT matters? Bugged by software glitches? Send your questions to helpdesk@infotechtoday.com.sg

CANNOT RESTART RPC.EXE

Q: My PC keeps displaying the message: “RPC.EXE has generated errors and will be closed by Windows. You will need to restart the program.” I disabled the Remote Procedure Call but wasn’t able to set it back to “automatic”. Now, even when I right-click on My Computer and select “Manage”, there is no response. How do I rectify the problem?

Nancy Tan

A: Your PC might have been infected by a virus that is exploiting a previously-identified vulnerability in RPC.EXE. First, update your antivirus program and scan the PC to check if it is infected. Then, re-enable RPC.exe by performing these steps in order:

1. Enable via command prompt
   a. Click Start, key in “cmd” and press Enter.
   b. Key in “net start rpcss” and press Enter. These messages should appear: “The Remote Procedure Call ... i start ing” and “The Remote Procedure Call ...
   ... was started successfully”.
   c. Key in “net start rpclocator” and press Enter. You should see similar messages.

2. Enable via the registry
   a. Modifying the registry is dangerous. If improperly done, your PC might not run properly or might even refuse to boot up. If you are new to modifying the reg istry, get a more knowledgeable friend to help. Always back up your registry before you modify it.
   b. Click on Start and select Run.
   c. Key in regedit.exe.
   d. Navigate to \HKEY_LOCAL_MACHINE\System\CurrentControlSet\Services.
   e. Look for RPCSS and RpcLocator. For each of them, set its Start value to “2”.
   f. Close the registry editor, then reboot.

3. Enable via Recovery Console
   a. Boot from your Windows XP CD.
   b. During the Windows XP setup, follow the prompts and go to the Recovery Console. You might be prompted for your administrator’s password.
   c. Once you are in the recovery console, key in “enable rpcss SERVICE_AUTO_START” and press Enter.
   d. Key in “enable rpclocator SERVICE_AUTO_START” and press Enter.
   e. Type Exit and reboot your PC.

Finally, patch RPC.EXE by going to:
www.microsoft.com/technet/security/bulletin/MS03-026.mspx to download and run the patch.

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