

Radars

Have you come across a technology that challenges existing models of IT, or are you involved in an innovative research IT project?

Let us know at

radar@computerweekly.com

MIND MAPPING Polar explorer packs visualisation software to access the inaccessible

Mind mapping software helps ice warrior meet challenges of the pole

John-Paul Kamath

john-paul.kamath@rbi.co.uk

His beard and eyebrows are caked in ice, and the beads of sweat around his nose look like frozen tears. His eyes are narrowed slits and he has a bruise on his nose, but the small patch of skin visible beneath his parka and mouth mask shines red in defiance of the Arctic winds.

This is a good day for Jim McNeil, who is leading a team of novices across the Arctic over the next 50 days. If his team is to survive, they must appreciate how cold life will become. Working in temperatures of -20°C allows McNeil to make some unforgettable demonstrations.

"I get one to make me a very hot cup of tea and then throw it up in the air and watch their faces as it comes back down as snow," he chuckles. "That tends to grab 'em."

His latest expedition, codenamed Ice Warrior, will see McNeil explore the North West Passage before attempting to reach the Northern Pole of Inaccessibility (the location furthest from land), where no human has set foot.

Hot drinks and thermals rank as a priority, as does the IT equipment McNeil takes with him. He has a satellite phone/modem that he plugs into a ruggedised Terralogic PDA to take GPS readings and to send dispatches of his daily diary back home. Sending pictures back via the satellite phone can take a bit of time as data rates sometimes plummet to speeds of 10kbps.

Freeze-proof

McNeil also takes a military-grade Windows 2000 laptop that is designed to withstand temperatures of -20°C. He has no plans to upgrade to Vista, but says he will be moving to XP soon.

"Keeping the laptop and all equipment warm and moisture-free is a big challenge, even though they are ruggedised. I do not rely on IT wholeheartedly, though. It is a tool to make my job easier; if it fails, then



McNeil: "throw a hot cup of tea in the air and watch it come back down as snow"

KEY POINTS

- Expedition team of novices heading for Northern Pole of Inaccessibility
- IT equipment has to withstand temperatures that can hit -20°C
- Mind mapping software allows expedition to plan route and all logistics
- Software has allowed team to play out multiple life-threatening scenarios

my job becomes more difficult, but the goal still remains."

McNeil is using project management software from Mindjet. The visualisation software is based on the concept of mind maps: simple spider diagrams used to represent words, ideas or tasks using bubbles, pictures and colour. The planning tool has been used to ensure McNeil can plan all the logistics and critical contingency measures during this test of human endurance.

"I use mind-mapping software an awful lot for making safety plans and planning decisions," he says. "These expeditions are logistically

very complicated and visualisation software has been a revelation in planning for it. As a team we have used the tool to visualise and brainstorm different event scenarios that we might face in the Arctic; even the unexpected and highly unlikely."

A mind map is a diagram used to represent words, ideas, tasks or other items linked to and arranged radially around a central keyword or idea. It is used to generate, visualise, structure and classify ideas, and as an aid in study, organisation, problem solving, decision making, and writing.

Mind mapping software is used to

create diagrams automatically. Academics have suggested that mind mapping software can improve learning/study efficiency up to 15% over conventional note taking.

MindManager has been used in diverse industries. Hurricane-Response team leader Alan Stensland uses it to co-ordinate staff when carrying out repairs using visual mapping. Stu Schmidt, vice-president for professional services at WebEx, uses it when talking to customers to capture requirements and present his understanding of the customer problem.

The mind mapper

McNeil has been using MindManager since 2004 to look at which routes the team will be taking, the fuel they use, and to orchestrate his thoughts. He used a notepad and pen before, but as his missions became more complex and the conditions more severe, the need to quickly model and modify simulations with the rest of the team became urgent.

"My team have played out multiple scenarios in simulation. When faced with a potentially life-threatening situation to the team, the responsibility of getting everyone home safely is imperative."

McNeil says a critical factor for choosing any IT kit on one of his missions is ease of use.

"I am a very practical about things like the design of the user interface in software. In the conditions I operate in, you do not want to be standing around pushing several buttons to get the results you want."

As the satellite connection for the interview grows fainter, I rush to ask McNeil which piece of electrical equipment he misses the most.

"I have never had an iPod or an MP3 player, but I have got one lined up for the next mission," he says. "It should be interesting. I do miss listening to inspiring music as I am trekking."

Mind mapping resource centre

<http://tinyurl.com/3387fb>

www.ice-warrior.com