



The University of Edinburgh

Press Release

Date: 24 March 2005

Hi-tech support helps Everest climber's bid to join elite

Pioneering technology that enables climbers and explorers to plan expeditions more effectively – and could even help to save lives – will be ‘road tested’ by a Scottish-based mountaineer on Everest this spring. Computer technology being developed at the University of Edinburgh will allow climber Rob Milne to respond rapidly to changing conditions and inform family and friends back home of his progress and any alterations to his plans. Dr Milne, a leading software engineer and entrepreneur, hopes to climb Everest in May and so join the elite group of mountaineers to have climbed the highest peak on each of the seven continents.

Dr Milne, who has already climbed Carstensz Pyramid (Oceania) Vinson Massif (Antarctica), Elbrus (Europe), Kilimanjaro (Africa), Denali (North America) and Aconcagua (South America), will be the first mountaineer to use the IM-PACs (intelligent messaging, planning and collaboration) system. The technology, developed at the Artificial Intelligence Applications Institute in the University of Edinburgh’s School of Informatics, has been designed to provide computer support to people and teams performing a range of tasks – not just expedition teams operating in extreme conditions, but also key personnel involved in planning and rescue services responding rapidly to emergencies. IM-PACs’ foundations in artificial intelligence planning technologies supply a framework that encourages a methodological approach to any task and allows users to transmit and respond to information in ways that can adapt to the circumstances the expedition team finds itself in.

During his ascent, Dr. Milne will be in regular contact with colleagues in base camp who will monitor his progress against his ascent plan. A laptop computer and satellite phone will allow details of his current status and progress to be sent over the internet to a support team in Edinburgh. These details will be used to update an online ‘blog’, giving family, friends and anyone else interested in the expedition the latest information on the attempt. Were conditions to deteriorate significantly at any time, the IM-PACs technology could be invoked to suggest alternative courses of action. Should conditions deteriorate still further, IM-PACs could be used to widen the scope to review the expedition’s objectives and consider other capabilities and options, such as the availability of rescue services, and set about marshalling these to achieve the revised objectives.

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Said Dr Milne: “On an expedition like this, it is vital to keep track of where you are, what you are trying to do and the contingency options when your brain is barely able to function because of the lack of oxygen. Giving the IM-PACs software an ultimate field test will not only help pioneer the way for remote support, but also provide feedback to my friends and family as to how I am progressing. That lets me relax and concentrate on a safe ascent. This is an ideal combination of leading edge technology to assist with one of the greatest physical challenges on the planet.”

Professor Austin Tate, Technical Director of AIAI, said: “Any attempt on Everest requires a lot of coordination and planning before, during and after the expedition. This makes such ‘extreme’ expeditions good examples of the kind of thing we wish to support with IM-PACs and AI planning technology. Supporting Rob Milne in his final milestone for his personal ‘continent tops’ challenge is a great opportunity to showcase what could be achieved in such missions. Our aim is to provide technology for more effective collaboration in extreme and emergency situations.”

IM-PACs is funded by Scottish Enterprise, the European Research Development Fund (ERDF) and the School of Informatics at the University of Edinburgh. More details of IM-PACs and the Everest Expedition are available at:

<http://www.aiai.ed.ac.uk/project/everest/>

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