

### Overview

Teams are becoming fragmented. Multiple office locations combined with home working and out-sourcing can mean that staff are rarely all together at the same time. Sun Microsystems estimate that at any one time more than 50% of their staff are not located with their colleagues. This poses a big challenge for any organisation, and especially for teams of software developers who need to be trained, hold daily team huddles and bond. The social aspect of team-working can be entirely lost which can have an impact on the well-being and efficiency of the team members.

### Problems

The most common solution is telephone or video conferencing. Anyone who has participated in one will be aware of the short-comings. There is no sense of actually being 'with' remote colleagues, there is a tendency for the most assertive character to dominate, some staff may withdraw and contribute little, it is hard to know when you might interject. Alternatives include Instant Messaging, maybe combined with a shared whiteboard, synchronised slide presentation or shared desktop, such as Lotus SameTime, Microsoft NetMeeting or one of the current explosion of web-based collaboration tools. However, the types of interactions that occur with these technologies still do not help the team to feel really together. In particular, the team will generally meet purely for the scheduled duration of the meeting. There is no chance to have the kind of casual and valuable chat that might occur round the coffee machine and no permanent 'team room' or space where the project artefacts might remain. Finally, there is still no sense that the team are actually spending time together.

### New Solutions

New immersive technologies are now available, aided by the graphical power of most desktop computers, which allow us to easily create very realistic meeting spaces and to present



the space to each team member as if they were actually there. Each team member has an avatar or three dimensional character in the space which they can move around freely. All the other participants are visible and can be talked to using typed text or voice. Presentations and documents can be displayed in these meeting spaces and are visible to everyone. Whiteboards can be made available which the participants can draw on – again the results are visible to everyone just as if they were all in the same physical meeting. Unlike a video conference, the participants are also able to privately interact with each other through voice or text at any time. The meeting spaces will typically persist even when no team member is using them, so team members can go back to check something, or can hang around after a scheduled meeting to catch up with their colleagues. This really happens!



**Example 1** - Training course – the participants would all log into the virtual training room, the tutor could present the material as normal, and discuss it with the whole team as well as receive textual or voice feedback. Students can also give essential non-verbal feedback in the form of body gestures which the tutor can see and respond to.



## Reducing Costs and Improving Efficiency of Dispersed Teams using new Collaboration Technologies

**Example 2** - Maintaining an agile development team room – The essential agile project artefacts such as the task list or post-it note wall can be maintained in the virtual team room. By using text chat for the meeting, the logs form an instant set of minutes that can then be emailed round the team at the end of the meeting. The team can interact in the space to also hold impromptu design meetings with a shared whiteboard or shared design documents that will be visible to all.

### Benefits and Return-On-Investment

**Reduced Travel** - A reduction in travel costs and the associated carbon footprint, reduction in stress and improved work-life balance for staff

**Improved Teamwork** - Much improved team cohesion, and a genuine sense of teams working together even if physically remote from one another.

**Learning** – Improved retention compared with traditional e-learning.

KnowSense Limited have extensive experience both in the issues of software development and with the leading technologies in this field and would be pleased to discuss your requirements further.

To find out more, contact Neil Canham on 07974 085903 or email [neil@knowsense.co.uk](mailto:neil@knowsense.co.uk)



## Reducing Costs and Improving Efficiency of Dispersed Teams using new Collaboration Technologies

The problem – training, agile scrums, meetings

Current Solutions – telephone conference, video conference, netmeeting, IM

Missing – sense of social interaction, tendency for teams to form sub-teams, no permanent team-space, no serendipitous coffee-machine moments

The solution – 3D immersive spaces

Sense of being there, social interaction

Benefits – reduced travel costs, improved team working, ability to hold whole team meetings and events easily. ROI – improved learning over e-learning, savings in travel costs...