

The MICE Project

Multimedia Integrated Conferencing for Europe (MICE)

The MICE consortium
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1. ABOUT THE MICE PROJECT

In 1992, the CEC agreed to finance a one-year piloting project called Multimedia Integrated Conferencing for Europe (MICE). The aim of the project was to pilot technology to improve interworking between European researchers. The technology base was to be a heterogeneous (open) hardware platform, and use existing software tools and the emerging 2 Mb European network infrastructure as far as possible. Another goal was to demonstrate interworking between European research sites and the US. Integration means that MICE technology allows multimedia conferencing - i.e. the use of audio, video and shared workspace tools - between conference rooms and workstation-based facilities, hardware and software codecs, packet-switched networks and ISDN, and uses both uni- and multicast technology. A detailed rationale for selecting these technologies, and the technical effort required to integrate them, is given in [Kirstein],[Handley].

The MICE partners set up an International Research Seminar Series between some of the partners to give organizers, technical support personnel and users the opportunity of evaluating the technology in regular service [Bilting]. Since the overall aim of the project was to further remote cooperation between researchers, a series of International Research Seminars constituted a "real-world task" for evaluation. Two of the MICE partners, University College London (UCL) and the Swedish Institute of Computer Science/Royal Institute of Technology (SICS/KTH) in Stockholm organized a joint series of 11 weekly seminars on Multimedia, Communications and Networks, Distributed Systems and CSCW, starting in October 1993. The seminars were attended by researchers and students in the conference rooms in Darmstadt (Germany), London (UK), Stockholm (Sweden), and Oslo (Norway). Other MICE partners in Germany and France followed the seminars from their conference rooms or workstations, as did up to 25 individual researchers from Europe, the US and Australia.

1. THE VIDEO

1.1 Overview

The video is structured in three main parts. It shows in a first part our videoconference system as presented at the Interop '93 in Paris. As a second part it shows an example of a Multimedia Conference meeting on remote language teaching held between MICE partners. The third part is a seminar given by Steve Deering (Xerox

PARC) during his stay at KTH (Stockholm, Sweden), which was part of a series of seminars broadcasted by the MICE project over the Internet.

1.1 MICE project demonstration at Interop'93, Paris

This part starts with some scenes from the conference site in Paris which lead to the stand of the German Telecom where our demonstration took place. The following parts of this section then show the view of the conference system as shown on the workstation as presented to the visitors.

On the screen you see 4 video streams presented in a quad-image. The lower right is the local view at Interop. Top right is coming from an office at UCL London. The upper left is send from INRIA (France). All of these are send to the Interop over the Internet. The lower left is a video input from an ISDN videophone from the BT (British Telecom) Helpdesk. Additionally visible on the screen are the other tools, like audio tool and the shared whiteboard. Video, audio and shared whiteboard are broadcasted during the conference to partners all over the world over the Internet Mbone (Multicast Backbone)[Casner] Infrastructure.

1.2 Example of a weekly MICE meeting

This section shows part of a MICE project meeting on network infrastructure planning for a remote language teaching project. This is an example of how multiparty conferencing is used within the MICE project. In additions to meetings on special topics like the one shown here, the MICE project does it's weekly project meetings using the same technology.

The partners participating this meeting were Mark Handley (UCL, London, UK), Ronny Nilsen (Univ. of Oslo, Norway) and Christian Wettergren (KTH, Stockholm, Sweden).

This parts shows several views from the different sites during the meeting. The partners use VAT (audio), IVS (video) and WB (shared whiteboard) during their discussions.

A map of Europe was preloaded in the whiteboard. The partners used this tool to add (draw) additional parts (like network links) during their discussion. This meeting was multicasted between the MICE partners over the Internet (Mbone).

1.3 Example of a weekly MICE seminar

This section shows part of a seminar given at the 'Informal Workshop on Multicast Conferencing' at KTH Stockholm, Sweden, by Steve Deering (Xerox PARC) on "State of the Art and Research Issues" as part of the MICE International Research Seminar Series. What you see is the view of this seminar at a remote workstation at the Computer Centre University of Stuttgart (RUS), Germany, showing how this seminar was received at this site. The shared whiteboard is used to present the slides during the talk. In addition the speaker uses this tool to explain and emphasize parts of his talk. This seminar was broadcasted worldwide over the Internet (Mbone).

2. Multimedia Conferencing tools used by the MICE project

Audio: VAT (Visual audio tool) written by Van Jacobson & Steve McCanne (Lawrence Berkeley Laboratory (LBL),USA)

Video: IVS (INRIA Videoconferencing Software) developed at INRA, France

Shared whiteboard: WB (WhiteBoard) Written by Van Jacobson, Steve McCanne (Lawrence Berkeley Laboratory (LBL),USA)

3. REFERENCES

[Bilting] U. Bilting et. al. "Remote Seminars through Multimedia Conferencing: Experiences from the MICE project", Proceedings of the JENC/INET94

[Casner] S. Casner, Frequently Asked Questions (FAQ) on the Multicast Backbone (MBONE), available by anonymous ftp from venera.isi.edu in the mbone/faq.txt, May 6th 93.

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[Kirstein] P. T. Kirstein, M. J. Handley, M. A. Sasse Piloting of Multimedia Integrated Communications for European Researchers (MICE) Proc. INET.

4. ACKNOWLEDGEMENTS

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