An on-line conference system for exchange in 3D graphics and utilizing "screen sharing" technology

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1. Introduction

The purpose of our study is to develop a system of communication where two or more medicine specialists of remote areas are able to share a single PC desktop screen for exchange in case examinations and operation plans.

2. Methods

Our system enables two or more doctors in remote places to operate one 3D medical image simultaneously by using PC's screen sharing technology. Two or more Clients PC share the screen of PC called "Display server." The screen of the Display server and that of the Client PC completely synchronize. Our system is using XVL[1] for 3D medical image. Furthermore, because each conference is saved in a video file, the conference can be repeatedly reviewed by a wide audience.

3. Results

The on-line conference was performed in ankylosis of Temporal Mandibular Joint. Two plastic surgeons, present in about 20km away from each other. Fig.1 shows the situation of the on-line conference.

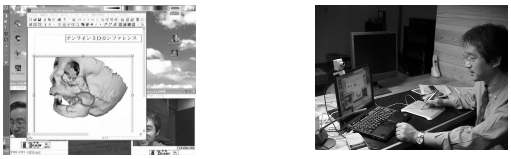

Fig. 1. The situation of the on-line conference

4. Conclusion

Our system enables two or more doctors to simultaneously observe and operate a 3D medical image. This is useful, especially for surgical operational planning.

References

[1] Wakita A, Yajima M, Harada T, Toriya H, Chiyokura H. XVL:Compact and Qualified 3D Representation with Lattice Mesh and Surface for The Internet. Web3D-VRML2000 - Fifth Symposium on the Virtual Reality Modeling Language; San Francisco; 2000.p45-51.

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