## 3DVideo-Alive System for Bunshin-Presence in Virtual Environments

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# Virtual presence is <u>necessary</u> for Bunshin communication.

## 3D-Video-Alive system to create virtual presence





Different Parts owned by Different People - Multiple participants can <u>own</u> portion of a video-image as their own and <u>manipulate owned-objects</u> using a variety of <u>input/output devices</u>.

- A participant should be able to interact, wholly or partially, with other participant's by changing the other participant's video images

### Depth enhanced video-stream

- <u>3Dimensional objects</u> can also be merged with <u>3D video-streams</u> providing a new interaction paradigm

- <u>3D objects</u> could be an avatar of a participant and therefore under their direct control, or could be self sufficient with their own motion algorithms based upon motion capture, dynamics, or kinematics.

 Therefore, a variety of interaction are possible. - The depth enhanced video feed could be the surroundings of the participant.

- Synchronization would allow participants to <u>appear</u> to exist at the same place at the same time. - 3D input device such as PHANTOM(TM) Force Feedback Device to be used to create depth enhanced video images.

- 3D Video-Alive system can also be used to extrude 3Dobjects from multiple cameras images

- These depth-enhanced videos will be used to create stereo-effect in a virtual reality environment. Applications of 3D Video-Alive System

- medical,
- game playing
- Digital video 3D interaction

-Extruding surfaces from the depth enhanced videos

- Moving your body part from by someone else

- Physical properties of objects can be owned and changed

- Interactive Digital theater
- digital story telling