CLCL: CAVELib Compatible Library for Head-mounted Displays

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Head-mounted displays (HMDs) are becoming a practical platform for three-dimensional scientific visualization. To reuse existing software assets that have been developed for CAVE-type VR systems (CAVEs), I developed a C++ library called "***CLCL*** (CAVELib Compatible Library)" for porting the application software for CAVEs to HMDs. CLCL emulates the function calls of CAVELib, which is a commercial library for developing application software executable on CAVEs, and it enables us to easily port CAVELib application software to HMDs with minor modifications to the original source code. Executable files built using CLCL are able to launch on major HMDs which are Oculus Rift, HTC VIVE and Windows Mixed Reality devices. Sharing the source code also leads to an improvement in the VR software development efficiency, which is executable on both CAVEs and HMDs.

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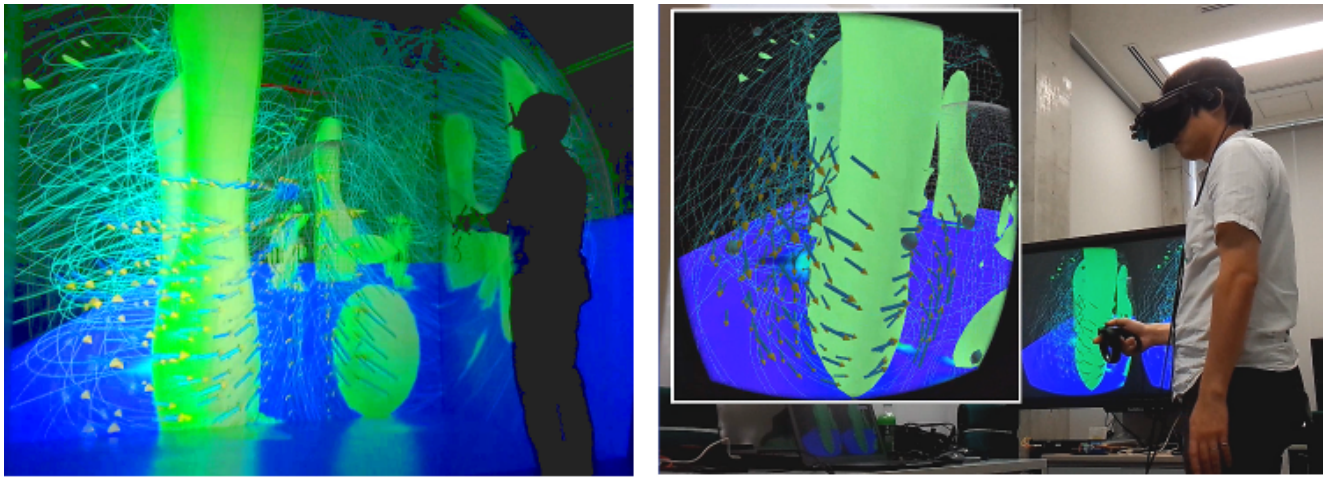

Fig.1 A CAVELib program executed on VR devices.
(Left: CAVE, Right: HMD)

