

## **VIRTUAL INTERFACE TECHNOLOGY**

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## **VEOS: PRELIMINARY FUNCTIONAL ARCHITECTURE**

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Virtual interface hardware sensors, such as the head-coupled unit, hand sensors, joysticks, yolks, and other devices, provide a digital signal which is generated by the physical actions of a participant (user) in a virtual environment. VEOS is the software substrate which mediates the interface between the symbolic computation generating the virtual environment and natural behavior of the participant within the virtual environment.

## **APPLICATIONS OF VR**

A virtual reality interface feels as though it were reality, permitting human-machine interaction that calls upon natural human responses, responses that we have been acquiring since birth. Virtual reality (VR) techniques are immediately relevant to computational tasks that model reality, including scientific visualization, computer-aided design and manufacturing, client presentation for architecture and interior design, computer-aided instruction, medical imaging and simulation, interaction with complex display panels and layouts (cockpit design, industrial monitoring, desktop publishing), terrain navigation and landscaping, traffic control, and computer games. In the long term, VR techniques hold the promise of innovative computational applications such as virtual conferencing, prosthetic interfaces, knowledge navigation, and virtual sales and merchandising.

## **IMPLICATIONS OF VR**

VR is seeking definition, it could be anything from email to a fully surrounding, multi-sensory environment. We are struggling with appropriate comparisons. VR is not a drug and is not physically addictive. Drugs change our perspective from inside the body, VR changes our external environment. VR may well be psychologically addictive (that is, entertaining), just like all good media experiences can be. And there is that constant tension between physical responsibility and cognitive exploration. Is VR escapist? Escapism means seeking diversion from physical reality. VR cannot escape being escapism, VR is perfect escapism. Is VR theater, or interactive drama, or is it more than art? Is it scientific visualization, or physical simulation, or is it more than science? Is it financial modeling, or the perfect sales tool, or is it more than economics? It's a good idea to spend some time figuring out what VR is.