

# TRANSITIONS

## Charles River Analytics SPOTLIGHT



## Charles River Analytics Awarded Epic MegaGrant to bring Virtual and Augmented Reality Development Platform to Unreal Engine

***VIRTUOSO software development kit (VSDK) will streamline device interoperability and environment interactions for developers***

Source: Charles River Analytics staff; Ian Roth, Business Consultant, Navy STP

Navy SBIR/STTR Transition Program participant Charles River Analytics (Charles River) received a MegaGrant from Epic Games to develop and maintain its Virtual Interface for Real-Time User Control during Simulated Operations (VIRTUOSO) software development kit (VSDK) for Epic Games' Unreal Engine.

The Unreal Engine has become a cornerstone of Epic's business and the gaming industry at large. It's currently used by dozens of game makers, Hollywood production and special effects studios, and other firms in the 3D rendering and computer graphics businesses. The engine is also how Epic builds its own games, including Fortnite.

The grant will support the extension of Charles River's existing virtual and augmented reality (XR) toolkit into the Unreal Engine ecosystem. The open source VSDK simplifies XR development, providing a free platform to push the boundaries of XR in healthcare, automotive, entertainment, and other industries.

Charles River's development of virtual reality tools has included SBIR projects for the U.S. Marine Corps as well as the Army, National Institutes of Health, and Centers for Disease Control and Prevention.

"Our collaboration with Epic will marry VSDK's usability with the broad access of Unreal Engine, helping to bring this incredible tool to the developer community," said Elaine B. Coleman, Ph.D., vice president of commercialization at Charles River. "We're excited to break down long-standing XR barriers by dramatically improving ease of use and cross-device interoperability."

The VSDK eliminates the traditional roadblock of device-specific applications, allowing developers to design and build one application for a range of visualization, input, haptic, and tactile devices, and utilize a single API for interaction across all these platforms. Originally applied to improve review of computer-aided design and military medical training and education, the tool empowers developers

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Charles River Analytics Awarded Epic MegaGrant...(Continued)

to generate naturalistic interactions with content through its reaction system, providing a truly intuitive interaction space.

“VIRTUOSO has been an important part of our research and solutions at Charles River Analytics, providing a next generation interface that streamlines development without sacrificing the quality of the XR outcome,” said Senior Software Engineer Arthur Wollocko. “This is a tool created for developers by developers, and we’re confident this addition to Unreal Engine will be embraced as a significant leap forward.”

For more about VSDK, please visit the Charles River Analytics YouTube Channel

or explore it, open-source, on GitHub, with guides, tutorials, and additional information.

### About Charles River Analytics:

Charles River Analytics ([www.cra.com](http://www.cra.com)) creates solutions to serve the warfighter and technology to tackle the world’s most challenging problems. Our team of technological entrepreneurs pushes at the forefront of enhanced AI, robotics, and human-centered computing. The resulting world-class research helps continuously advance government programs and catalyze new possibilities in the commercial marketplace.

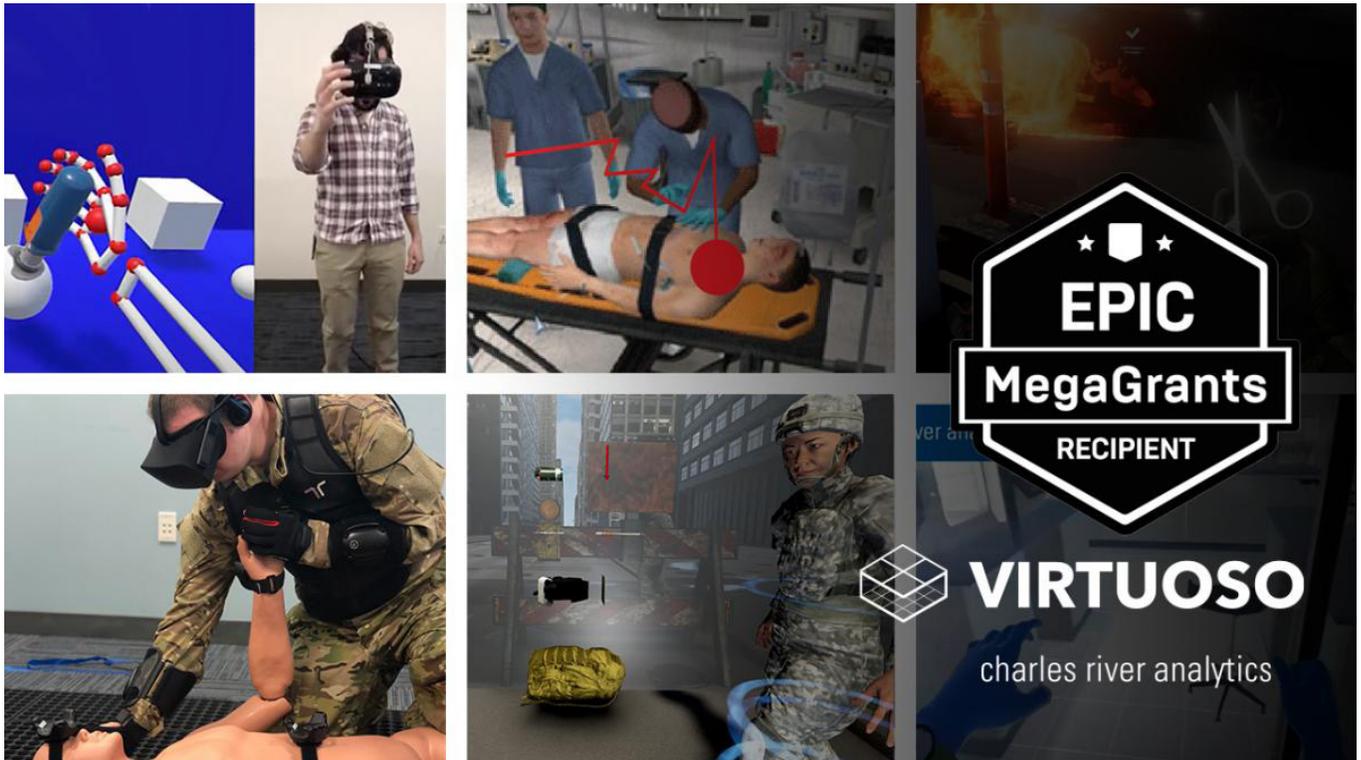


Image provided by Charles River Analytics

