

March 14, 2016



Qualcomm Announces Introduction of Snapdragon Virtual Reality Software Development Kit

-- Unleashing the Full Potential of Snapdragon 820 for Developers to Create Immersive VR Experiences for Smartphones and VR Headsets --

SAN FRANCISCO, March 14, 2016 /PRNewswire/ -- Qualcomm Incorporated (NASDAQ: QCOM) today announced that its subsidiary, Qualcomm Technologies, Inc., has introduced a new virtual reality (VR) software development kit (SDK). The next generation of mobile virtual reality applications is complex, with extreme power consumption constraints and challenging performance requirements that must be met in order for the VR applications to become truly immersive. Advanced heterogeneous processors like the Qualcomm® Snapdragon™ 820 processor are capable of supporting immersive VR experiences, but can also be difficult to fully utilize without the right set of tools for developers. The new Snapdragon VR SDK is designed to abstract the complexity of immersive virtual reality and provide developers with access to optimized, advanced VR features, to simplify development and to help them attain improved VR performance and power efficiency with the Snapdragon 820 for Android smartphones and upcoming VR headsets. The SDK is expected to be available in the second quarter of 2016 through the [Qualcomm Developer Network](#).

For the first time, many new technologies that are crucial for an optimal VR user experience will be supported in the Snapdragon VR SDK. These include:

- **DSP sensor fusion:** Utilizing the full breadth of technologies built into Snapdragon 820, the SDK enables developers to create more responsive and immersive experiences by easily accessing the right combination of high frequency inertial data from gyroscopes and accelerometers via the Snapdragon Sensor Core and predictive head position processing with the Qualcomm® Hexagon™ DSP
- **Fast motion to photon:** Supports asynchronous time warp with single buffer rendering for fast transformation of rendered images in 3D space, which helps reduce latency by up to 50% compared with not using the SDK
- **Stereoscopic rendering with lens correction:** Supports 3D binocular vision with color correction and barrel distortion for improved visual quality of graphics and video, enhancing the overall VR experience
- **VR layering:** Generation of menus, text, and other overlays so that they render correctly in a virtual world, reducing distortions that would otherwise make them difficult to read
- **Power management:** Integration with the Qualcomm® Symphony System Manager SDK to provide cohesive CPU, GPU, and DSP power and performance management to help achieve stable frame rates for VR applications running in low-power, thermally-constrained devices – improving power efficiency compared to not using the SDK

"We're providing advanced tools and technologies to help developers significantly improve the virtual reality experience for applications like games, 360 degree VR videos and a variety of interactive education and entertainment applications," said Dave Durnil, senior director, engineering, Qualcomm Technologies, Inc. "VR represents a new paradigm for how we interact with the world, and we're excited to help mobile VR developers more efficiently deliver compelling and high-quality experiences on upcoming Snapdragon 820 VR-capable Android smartphones and headsets."

About Qualcomm Incorporated

Qualcomm Incorporated (NASDAQ: QCOM) is a world leader in 3G, 4G and next-generation wireless technologies.

Qualcomm Incorporated includes Qualcomm's licensing business, QTL, and the vast majority of its patent portfolio. Qualcomm Technologies, Inc., a subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, substantially all of Qualcomm's engineering, research and development functions, and substantially all of its products and services businesses, including its semiconductor business, QCT. For more than 30 years, Qualcomm ideas and inventions have driven the evolution of digital communications, linking people everywhere more closely to information, entertainment and each other. For more information, visit Qualcomm's [website](#), [OnQ blog](#), [Twitter](#) and [Facebook](#) pages.

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