Canon announces MREAL X1 head-mounted display with wide field of vision for 3D data applications to support the digital transformation

MREAL X1

CG car displayed against real-life backdrop

TOKYO, April 21, 2022 — Canon Inc., Canon Marketing Japan Inc. and Canon IT Solutions Inc. announced today the launch in Japan of the latest addition to the company's MREAL series of mixed-reality (MR) systems that merge 3D CG with real-world visuals—the MREAL X1, head-mounted display (HMD) with a wide angle of vision.

Canon's MREAL system employs a Video See-through[1] head-mounted display to overlay 3D CG images onto real-world space as if they were really there. Realizing a compact, and lightweight body as well as high image quality, the MREAL X1 provides a wide field of vision that facilitates more efficient inspections and delivers a greater sense of immersion. These capabilities makes the new model ideal for a wide variety of 3D data applications to promote the digital transformation (DX) in such industries as manufacturing.

By increasing the display area, the devices realizes an expanded field of vision, thus reducing the need for users to move their head when looking around. This in turn makes possible greater efficiency during inspection workflows and facilitates worry-free operations, enabling users to confirm their own positions and work together with others.

The MREAL X1 realizes a compact and lightweight design weighing approximately 359 g (including head mount unit; display only: approximately 158 g) and an ergonomically designed head mount unit that conforms comfortably to users' heads, thus reducing the burden during use. What's more, the device leverages Canon's proprietary display panel technology and the company's long history of optical technology development to deliver high image quality in a compact and lightweight body.

Thanks to compatibility with mobile workstations[2], the MREAL system achieves a compact and lightweight design that enables users to easily transport the device wherever it's needed. In addition, spatial alignment technology allows the system to be used with high positional accuracy in both outdoor and indoor environments[3]. What's more, 3D CG data can be shared via remote connection, thus supporting teamwork when team members are geographically distant from one another.

The MREAL X1 will go on sale in early June 2022 at an open price.

[1] A system in which a computer joins real-life images seen by the human eye and captured by a CMOS sensor built into the head-mounted display with 3D CG images in real time and displays them on the head-mounted display.

[2] High-performance notebook-type computers capable of smoothly performing high-level, high-complexity functions.

[3] The device is not dust or moisture resistant. Limitations may apply depending on environment and use case.

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This is a summary of a release issued in Japanese by Canon Inc., Canon Marketing Japan Inc. and Canon IT Solutions Inc. in Tokyo on April 21, 2022. For further information, please contact Karl Bruder (tel: 03-5482-8055; fax: 03-5482-5130; e-mail: bruder.karl@mail.canon)