

TU Dresden using Europe's largest interactive display wall for research purposes

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High-resolution interactive display wall. Credit: Interactive Media Lab Dresden

Following a very successful testing phase, a high-resolution interactive display wall by Finnish company MultiTouch Ltd. is being used for research and education in one of the labs of the Chair of Multimedia-Technology (Interactive Media Lab Dresden) since the beginning of the year. The large display consists of 12 individual 55" displays (LCD) with extra thin bezels for a total size of 5m x 2.50m. It provides twelve times

HD resolution and thus almost 25 megapixels on a display area of 10.5m^2 .

The special feature of the interactive wall is the recognition of an arbitrary amount of fingers and hands, while allowing the use of pens or tangible objects with markers for input at the same time. With this broad range of input methods and the unlimited number of touch points, the [display](#) giant provides completely new opportunities for ambitious research in human-computer interaction.

The MultiTaction technology is the only one worldwide to support this variety of interaction modalities at this size. "High resolution, interactive display walls will be omnipresent in the future and lots of research challenges lie ahead of us," explains Professor Raimund Dachzelt, Head of the Interactive Media Lab at TU Dresden. "As one of the first groups with such equipment, we aim at very fundamental research results. Besides the various direct possibilities to work with the display wall, we also aim to transform the whole room in front of the display into one large interactive space by using natural forms of interaction such as gaze and gestures, as well as small personal displays."

The display wall allows the effective interactive visualization of very large amounts of data, which can be analyzed by multiple users at the same time. By now, a range of research and student projects have already been started to use the large display. The areas of application are ample, ranging from biology and medicine to network visualization, circuitry design, logistics and power monitoring, design and Industry 4.0 to media- and newsrooms of the future. The Interactive Media Lab Dresden wants to make this technology also available to small and medium-sized companies that want to interactively visualize large datasets.

Provided by Technische Universitaet Dresden

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