News Release

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MIRAIT ONE Corporation

【MIRAIT ONE Corporation】

“Event DX: Setup Planning Service” Introduced for Kita-ku Fireworks Festival 2024, Contributing to Reducing Event Venue Setup Time and Costs

Major telecommunications construction company MIRAIT ONE Corporation (head office: Koto-ku, Tokyo; President and Chief Executive Officer: Toshiki Nakayama; "MIRAIT ONE") will introduce its “Event DX: Setup Planning Service” at the Kita-ku Fireworks Festival 2024 to be held by the Kita-ku Fireworks Festival Executive Committee (Secretariat: Kita-ku, Tokyo; Executive Committee Chairman: Kotaro Omae) on Saturday, September 28, 2024. MIRAIT ONE will utilize three-dimensional (3D) models for the marking process[*1] in venue setup for the first time, contributing to the further reduction of setup time and costs.

Amid a nationwide shortage of labor and funds, as well as the recent sharp rise in the price of gunpowder used to make fireworks, which has caused cancellations of fireworks events, the Kita-ku Fireworks Festival Executive Committee decided to adopt the “Event DX: Setup Planning Service” provided by FIREWORKS Co., Ltd. (address: Rikuzentakata-shi, Iwate Prefecture; Representative Director: Katsuhiro Asama) and MIRAIT ONE. In venue setup, digital twin technology is used to accurately reproduce the shape of the event venue, buildings, and installations in 3D form on a digital space and to perform simulations in advance of the placement of fixtures and equipment such as seats and tents, as well as the location of security personnel. This contributed to reducing the time and costs for setup from venue design to setup planning with the setup contractor and security company.

In addition, for this event, 3D models were utilized for the first time in the marking process required as a pre-process for the placement of fixtures and equipment in order to improve the efficiency of venue setup, which has become large in scale due to the expansion of the paid seating area starting in 2024. Conventional measurement methods involve measuring by eye or using a scale from a flat drawing, or locating the placement of items based on past experience or existing objects. However, by utilizing a 3D model, it is possible to determine the locations to be marked in advance on a 3D plan with the layout of fixtures and equipment, and mark the spots onsite, which will enable laying work plans that effectively utilize the limited worker resources at a large venue and proceeding with the setup work quickly and efficiently.

The information used for marking is the 3D coordinate values (X, Y, Z) of the point cloud data. The 3D model of the event venue reproduced in digital space is formed by point cloud data. The start and end positions of the placement of fixtures on the 3D model are specified to extract coordinate values (X, Y) of the points at the specified placement locations. These coordinate values can be installed in a measurement application and linked to a GNSS measuring instrument*2 to identify the onsite coordinate positions and perform marking.

MIRAIT ONE will utilize its “Event DX: Setup Planning Service” to continue assisting in reducing work hours and costs associated with holding local events, thereby contributing to the holding and development of events in local communities.

Please see below how the 3D-based marking process is performed.

- Marking*1 is a process in which the information on the blueprint is reflected on the construction site.
- A GNSS measuring instrument*2 receives information from four or more satellites simultaneously, determines the points of intersection of the distance to the instrument from each satellite, and identifies the location of the survey point.

<Kita-ku Fireworks Festival>

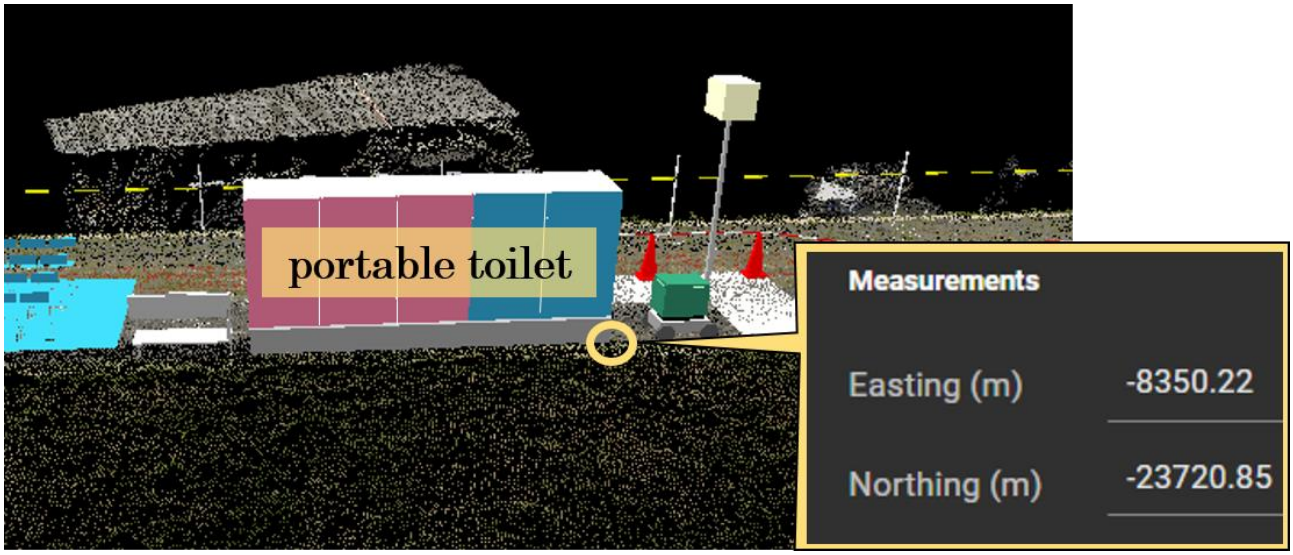
The Kita-ku Fireworks Festival (organized by the Kita-ku Fireworks Festival Executive Committee) is a pioneer of autumn fireworks that has been ranked as the most popular in Tokyo, and is held in early autumn in September or October every year on the Arakawa riverbed near the Iwabuchi Floodgate in Kita-ku, Tokyo. Under the theme of “REBORN,” the Kita-ku Fireworks Festival will offer new attractions over the Arakawa riverbed and Iwabuchi Floodgate near Akabane Station. In 2024, we will welcome Marugo Co., Ltd., a popular and accomplished fireworks company in Japan, and set off Marugo’s 10,000 brilliant fireworks in dazzling colors, synchronized with moving lights and music, a breathtaking program never seen before in Tokyo.

＜About MIRAIT ONE Corporation＞

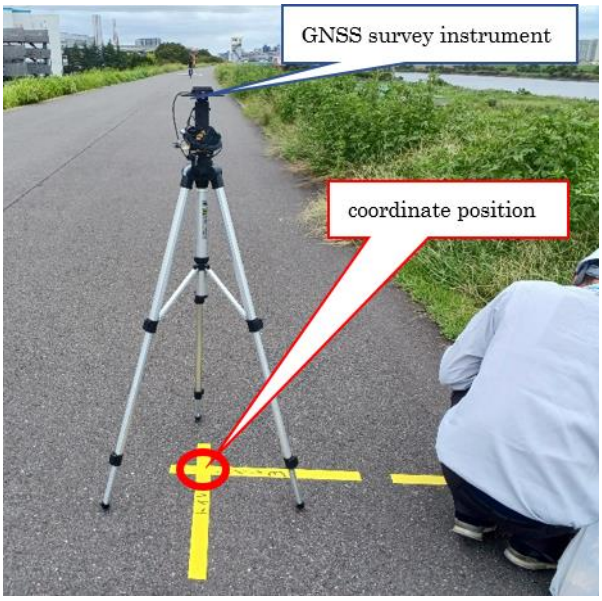
MIRAIT ONE Corporation was launched on July 1, 2022 through the integration of MIRAIT Holdings Corporation, MIRAIT Corporation, and MIRAIT Technologies Corporation. MIRAIT ONE has established “co-creating an exciting future through challenges and technology” as its purpose (significance of existence), and is engaged in the resolution of issues faced by customers and society and regional revitalization by promoting initiatives such as urban development and regional development, corporate DX and GX, green business and global business based on the technical capability cultivated until now in telecommunications facility construction and the civil engineering business.

－ Note －

Fixtures and equipment are laid out in a 3D model of the venue reproduced by point cloud data



Setting marking points for fixtures and obtaining coordinates from point cloud data



GNSS measuring instrument is used to mark coordinate points

Marking of the four corners of portable toilets

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