**FOR IMMEDIATE RELEASE**

**TMEIC Announces Economical Solution to Complex Challenge; Automates Landside Transfer Zone**

*Maxview4D™ achieves significant increases in efficiency and productivity, while reducing emissions.*

**ROANOKE, Va. (April 10, 2018)** – Toshiba Mitsubishi-Electric Industrial Systems Corporation (TMEIC) announced a breakthrough development in port automation today. TMEIC’s Maxview4D™ Landside Transfer Zone (LSTZ) solution provides fully autonomous landing on any top-loaded container handling equipment, including road chassis. The newly released system solves an ongoing challenge at ports around the world struggling to reduce their carbon footprint, while improving terminal throughput and efficiency.

Fully automated solutions within the Waterside Transfer Zone are commonplace in many major ports, however TMEIC engineers identified costly inefficiencies as Automated Stacking Cranes (ASC) entered the LSTZ where human operators working remotely are tasked with landing containers on road trucks for transport. Over the course of a 24-hour period, the 33-second average wait time for a remote operator to connect to a waiting crane equates to 2.1 hours per crane, or 50 hours of lost crane productivity a day.

“Our Maxview4D™ technology automates LSTZ transfers and reduces average wait time from 33 seconds to 3 seconds, reducing emissions from idling trucks and realizing an extra 1.66 hours of production per crane every day,” Alan Peterson, TMEIC Industry Segment Leader in Crane Systems, said. “Additionally, in instances where an operator must intervene, that involvement typically consists of a simple adjustment in landing position, which takes significantly less time to complete than a fully remote move.”

Maxview4D™ uses the same sensors required for a traditional ASC and typically does not require additional infrastructure investments from the port, providing an economical solution to an incredibly complex challenge. The technology uses crane-mounted laser scanners (LIDAR) to create a 4D model of the area under the spreader. As the ASC enters the LSTZ, Maxview4D™ scans the area underneath the crane and generates a set of Cartesian coordinates. TMEIC’s unique system filters the point cloud data to provide a clear view of the target and a precise location of the container to allow autonomous removal and transport of the container.

Automating the process of landing containers on road chassis presented engineers significantly more of a challenge than pickups. The inherent variability between chassis types, the required 25mm combined accuracy for the twistlocks, and the resolution capabilities of crane-mounted scanners being paramount among them. TMEIC’s Maxview4D™ LSTZ automation solution addresses these issues by analyzing chassis geometry and shape, rather than attempting to “see” twistlocks to determine an appropriate landing solution.

“With an average success rate of 99 percent for automated pickups and a 70 percent success rate for automated landings, the combined rate of 84.5% for landside-automated operations has proven Maxview4D™ successful in the ports where it is currently in operation,” Peterson said. “We’ve managed to nearly eliminate hard landings and drastically reduce the total time required to land on a road chassis.”

In addition to improved efficiency, Maxview4D™ reduces the overall emissions at terminals where it is in use. The average truck uses approximately 3.1L (0.82 gal) of fuel for every hour spent idling. An additional 30 seconds of wait time is not significant to an individual driver, however on the terminal level, this delay can add up to 50 hours of truck idling emissions per day. With the Maxview4D™ LSTZ automation system, idling time is reduced by 38 hours per day, eliminating up to 312kg of CO2 and 5.47kg of NOx emissions, every day.

Automating the LSTZ is essential to improving environmental factors, as well as helping container terminals keep up with the ever-increasing vessel size and increased throughput requirements. TMEIC’s Maxview4D™ LSTZ solution will keep terminals around the world competitive in a demanding global marketplace.

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**About Toshiba Mitsubishi-Electric Industrial Systems Corporation (TMEIC)**

Toshiba Mitsubishi-Electric Industrial Systems Corporation (TMEIC) was formed in 2003 following the merger of the industrial systems departments of Toshiba Corporation and Mitsubishi Electric Corporation. TMEIC manufactures and sells variable frequency drives, motors, photovoltaic inverters and advanced automation systems for a range of industrial applications. We drive industry.

*The North American operation –*

TMEIC Corporation, headquartered in Roanoke, VA, designs, develops and engineers advanced automation, large AC and DC motors, renewable energy solutions and variable frequency drive systems. TMEIC Corporation specializes in the Metals, Material Handling, Oil & Gas, Solar Power, Mining, Testing and other industrial markets worldwide. We drive industry. [www.tmeic.com](https://www.tmeic.com/North%20America)