

New Technology Initiatives in Terminal Operation

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In the port industry, numerous changes are underway due to technological advancements and environmental regulations. These shifts include transitioning to automated and smart terminals.

As vessels become larger, container terminal yard is under increased stress, and more quay cranes are required to be deployed at berths. As a result, terminal productivities have declined compared to the past, highlighting the need to enhance operational efficiency.

Meanwhile, in Korea, the Serious Accident Punishment Act and the Port Safety Special Act have been implemented to reinforce safety in the workplace. In response, terminal operators must actively invest in safety and refine their operational procedures.

Furthermore, with strengthening environmental regulations, the emphasis on carbon reduction in ports has grown. DP World is striving to achieve carbon neutral by 2040. Enhancing operational efficiency can also contribute to addressing environmental regulations.

To address the challenges facing terminal industry, it's crucial to break away from traditional thinking and adopt innovative solutions and new technologies to boost efficiency. At PNC, there's initiatives to optimize the terminal operations using methods that deviate from traditional approaches. This presentation aims to introduce state-of-the-art technologies that are either currently in use or in consideration, including Box-bay, EMR conversion, online Yard safe system, and online Navigation/towage.