

Press Release

June 6, 2025

MITSUI-SOKO HOLDINGS Co., Ltd.

MITSUI-SOKO HOLDINGS Introduces Advanced AI-OCR Technology to Enhance Logistics Operations for Toray Industries, Inc.

Boosting accuracy and efficiency in shipping inspections for synthetic resin handling

MITSUI-SOKO HOLDINGS Co., Ltd. (Head Office: Chuo-ku, Tokyo; President and CEO: Hirobumi Koga; hereinafter referred to as “we”) proudly announces that a shipping inspection application¹ (hereinafter referred to as “this App”) that leverages advanced AI-OCR technology² for the synthetic resin handling operations entrusted to MITSUI-SOKO Co., Ltd. (Head Office: Chuo-ku, Tokyo; Representative Director, President Executive Officer: Hiroshi Torii) of the MITSUI-SOKO Group from Toray Industries, Inc. (Head Office: Chuo-ku, Tokyo; President and CEO: Mitsuo Ohya).

¹ This App uses the Google Cloud Vision API service.

² A technology that integrates an optical character reader (OCR) to read image data from documents and convert characters into digital data, enhanced by artificial intelligence (AI) for improved accuracy and efficiency.

Many synthetic resin products lack barcodes or other verification markings on their packaging. Consequently, during shipping inspections of these products, it is necessary to verify the product codes printed on the packaging against the shipping instructions. Previously, this verification process relied on manual visual checks, which posed a risk of errors due to the inspector’s workload and varying levels of accuracy. We have developed a system that enables inspectors to capture images of product codes and lot numbers printed on the packaging of items to be shipped using a mobile device equipped with this App (hereinafter referred to as the “Device”). This system allows for direct comparison with shipping instructions, eliminating the need for manual visual inspection.

This App leverages AI-OCR technology to transform product information, including product codes and lot numbers captured by the Device, into text data. It then cross-references this information with shipping instructions sourced from the warehouse management system (WMS) linked to the Device. This approach reduces the inspectors’ workload and enhances the accuracy of shipping inspections, which were previously dependent on visual checks, while also standardizing and streamlining operational processes. Furthermore, the integration of portable printers for immediate issuance of shipping labels enables the attachment of essential shipping information, including delivery destinations and addresses, to verified products, significantly enhancing convenience for shipping companies.

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Characteristics of this Initiative

1. Improved Shipping Inspection Accuracy Realized Through the Adoption of AI-OCR Technology

This App effectively handles various fonts and printing methods, including both printing and stamping, on actual labels, significantly reducing the risk of verification errors³ compared to traditional visual inspections.

2. Optimizing Shipping Inspection Process

This App can significantly decrease both the time required for inspections and the workload on inspectors when compared to traditional visual methods.

3. Standardized Inspection Accuracy

This App ensures consistent inspection accuracy across personnel, achieving a high level of standardization.

4. Preventing Mislabeling by Issuing Labels On-Site

By using portable printers to instantly generate and attach shipping labels, which contain destination details and other information, this App effectively eliminates the risk of labeling errors.

³ In FY2023, there were 28 near-miss incidents. However, since the introduction of this App in July 2024, the number of incidents has impressively dropped to zero as of May 2025.

Since formulating the MITSUI-SOKO Group DX Strategy in 2021, the Group has been focused on creating societal value through digitization and visualization in supply chain management (SCM). We are committed to achieving optimal operations that enhance efficiency, reduce costs, and improve quality by leveraging the latest technologies, advanced robotics, material handling solutions, and other innovations. In response to challenges such as labor shortages due to the declining birthrate and aging population, rising wages, and intensifying competition, we will continue to support the growth of our customers' businesses by promoting the automation and semi-automation of field operations, along with other measures to enhance productivity and quality through smart logistics.

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