

Horizon and SCREEN Agree to Jointly Develop AI Solution for Smart Factory

Kyoto, Japan – October 27, 2020 – Horizon Inc. and SCREEN Graphic Solutions Co., Ltd. (SCREEN GA) have agreed to collaborate on the development of a solution that utilizes artificial intelligence to further enhance Smart Factory. The two companies aim to release this service to end users in January 2022.

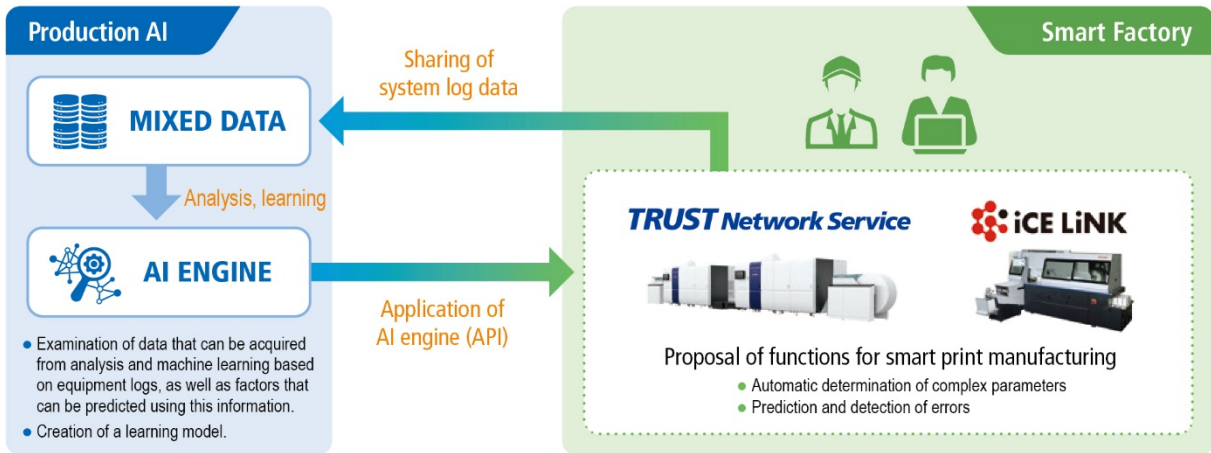
In recent years, orders for diverse, small lot jobs with short turnaround times have been increasing rapidly. This demand has seen the improvement of efficiency and operating ratios for production processes become a key area of focus for most print companies. Despite these efforts, unexpected problems at production sites often become ongoing challenges, hampering efforts to maximize production efficiency. These issues originate from a variety of factors, such as the equipment itself, operating environment, print data or operator skill levels.

Changes to settings and conditions are often used to resolve such problems and improve productivity. However, these adjustments must frequently be handled by experienced operators. This creates further challenges related to the aging of employees and requirement to train successors for their positions.

In response to these industry trends, Horizon and SCREEN GA have reached an agreement to develop an AI engine that is able to acquire their combined expertise in digital printing and postpress systems and use it to optimize operations. The companies will also cooperate with SCREEN Advanced System Solutions Co., Ltd., a leading provider of AI and IoT-based solutions.

The resulting AI will be used to analyze operating data accumulated from different production lines by Horizon's iCE LiNK and SCREEN GA's TRUST Network Service. This AI will be able to optimize settings and conditions, identify steps to address potential issues and provide general operational assistance for individual lines. The overall goal of the service will be to support operators and enable the creation of a production environment that any employee can utilize easily, safely and efficiently.

Going forward, both companies intend to provide a range of digital printing-based solutions designed to fully realize the advantages of Smart Factory. They will also continue to develop new technologies from the perspective of better integrating the print and postpress processes. Using this approach, the partners hope to effectively deliver the types of services required by the printing industry.



AI support solution for print production

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Comments by Eijiro Hori, President of Horizon Inc.

The transition to Smart Factory will be essential for print and binding facilities of the future. Since the latter half of the 1990s, our company has been leading the way in managing equipment operations using numerical data acquired directly from systems. This new AI-based data analysis project is another step toward the realization of our goal. Statistical analysis of numerical data enables the setup of equipment using a very fine level of adjustment that has so far depended on the experience of operators. It also offers the ability to prevent potential issues before they occur.

By effectively utilizing AI, I believe we will be able to present a system with the capacity to operate and manage the entire production process from printing to book binding without interruption. I sincerely hope the cooperative development being undertaken by both companies will contribute to the advancement and growth of the printing industry.

Horizon Inc.

The Horizon Group is a leading global manufacturer that creates systems for each of the four processes involved in book binding (folders, binders, collators and cutters), and maintains the functionality to handle all stages from development through to production. In addition to book binding-related equipment, it is strongly focused on the creation of workflow products for connecting individual systems.

Horizon is responsible for iCE LiNK, a system that receives a range of preset information as numerical data, enabling the monitoring of operational progress from a remote location. iCE LiNK is one of the many flexible, highly optimized solutions Horizon has developed for the printing industry. These systems are essential as companies seek to improve operator efficiency through increased automation to meet the growing requirement for mixed, small lot production.

www.horizon.co.jp

Comments by Takanori Kakita, President of SCREEN Graphic Solutions Co., Ltd.

Production in the current digital era means people, environment and processes are all interconnected and one company working alone will not achieve the transition to Smart Factory. Among the many areas that must be addressed, one of the most vital is seamless linking of digital print and postpress processes due to its direct connection to productivity.

By combining the specialized knowledge possessed by both companies, and utilizing the power of data and AI, we hope to drive the evolution of production systems. Progress in this field will help to meet various current societal demands, such as those calling for increased diversity in the workplace and the reduction of waste. It will also help to promote the realization of mass customization, an area that is being targeted by the printing industry.

SCREEN Graphic Solutions Co., Ltd. (SCREEN GA)

SCREEN GA is a core group company of SCREEN Holdings and also one of the world's leading manufacturers of graphic arts equipment. It has utilized the image processing and inkjet technologies developed by the SCREEN Group over many decades to create an extensive lineup of digital presses for print areas ranging from transaction and commercial to label and flexible packaging. SCREEN GA also offers market-leading workflow solution products such as EQUIOS, as well as a full selection of RIP, CtP and other systems.

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