

Siemens and Procter & Gamble scale AI-based quality inspection across global production

- **P&G expands the use of an AI-based inspection system across manufacturing operations worldwide**
- **Siemens provides the industrial AI and edge computing platform that enables the solution to scale across plants and production lines**
- **The solution helps improve product quality while reducing scrap by 10 to 20 percent**
- **New deployments are commissioned five to ten times faster than traditional vision systems**

Siemens and Procter & Gamble (P&G), one of the world's largest consumer goods manufacturers, are expanding the deployment of an AI-based quality inspection solution across P&G's manufacturing operations worldwide. The system inspects products in real time during production, delivers comprehensive inspection coverage at full line speed and helps improve quality consistency. Depending on the product, scrap rates have been reduced by 10 to 20 percent.

The Visual Inspection Cockpit (VIC) is used in high-speed consumer goods manufacturing, where products consist of delicate, textured materials that naturally shift, stretch or wrinkle at high production speeds. Traditional vision systems often require extensive reconfiguration when materials, packaging designs or production environments change. By using Industrial AI, VIC can adapt more effectively to these variations and maintain inspection performance across a broad range of products.

Developed jointly by Siemens and P&G, the solution combines P&G's deep learning models with Siemens' Industrial Edge computing platform, industrial PCs powered by

Nvidia GPUs and AI hardware and software. Siemens supports the industrial computing infrastructure, software scaling capabilities and long-term operation of the system across production sites.

"Our Industrial AI and Industrial Edge capabilities deliver what high-speed production demands: full inspection accuracy for thousands of products per minute, scalable from a single line to a global footprint. This collaboration demonstrates what we mean when we say we're making industrial AI real," said Rainer Brehm, COO for automation and CTO at Siemens Digital Industries.

"We engineered this solution to solve a myriad of industry challenges traditional vision systems couldn't touch: accurate characterization of overlapping components, the subtlety of low-contrast defects, the complexity of highly decorated products and packaging, tight time coordination, real-time PLC integration with single product reject at high production rates with continuous inspection," said Paul Thomas, Director of Machine Vision and Applied AI at Procter & Gamble.

The Visual Inspection Cockpit (VIC) analyzes live camera images in real time and inspects every product passing through the production line. Unlike conventional rule-based vision systems, the AI-based approach can handle a wide range of product variations without the need for frequent reprogramming. The solution includes the Visual Inspection Engineering Tool, which enables plant engineers to configure, train and update inspection models directly, without requiring dedicated data science resources. This makes quality control more flexible and easier to maintain in complex production environments.

Inspection results are processed close to the production equipment on Siemens' Industrial Edge and integrated directly into manufacturing operations. The system can automatically trigger actions such as alerts or the removal of defective products from the production line. Quality data can also be collected and analyzed over time, helping production teams identify trends and support continuous improvement efforts.

VIC is part of Siemens' broader machine vision and industrial AI portfolio, which includes the Industrial AI Suite. These solutions are delivered as standardized

applications on the Industrial Edge platform. Together, they provide a consistent framework for deploying AI-based solutions at scale, regardless of whether the AI model is a custom development or Siemens-owned.

Because VIC is delivered as a reusable Industrial Edge application, new deployments can be commissioned five to ten times faster than traditional bespoke vision systems. With established infrastructure, DevOps processes and integration patterns, P&G can replicate the solution across plants, products and inspection scenarios with minimal overhead. The inspection data feeds into P&G's broader digital manufacturing ecosystem, providing real-time visibility into process stability and continuous improvement opportunities.



At a P&G production facility, operators use the AI-based Visual Inspection Cockpit on Siemens Industrial Edge to monitor quality in real time across high-variation consumer goods lines

This press release and press pictures are available at

<https://press.siemens.com/global/en/pressrelease/siemens-and-procter-gamble-scale-ai-based-quality-inspection-across-global-production>

You can find more information about the collaboration at

<https://references.siemens.com/en/reference/procter--gamble-pg-?id=RMW00694>

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