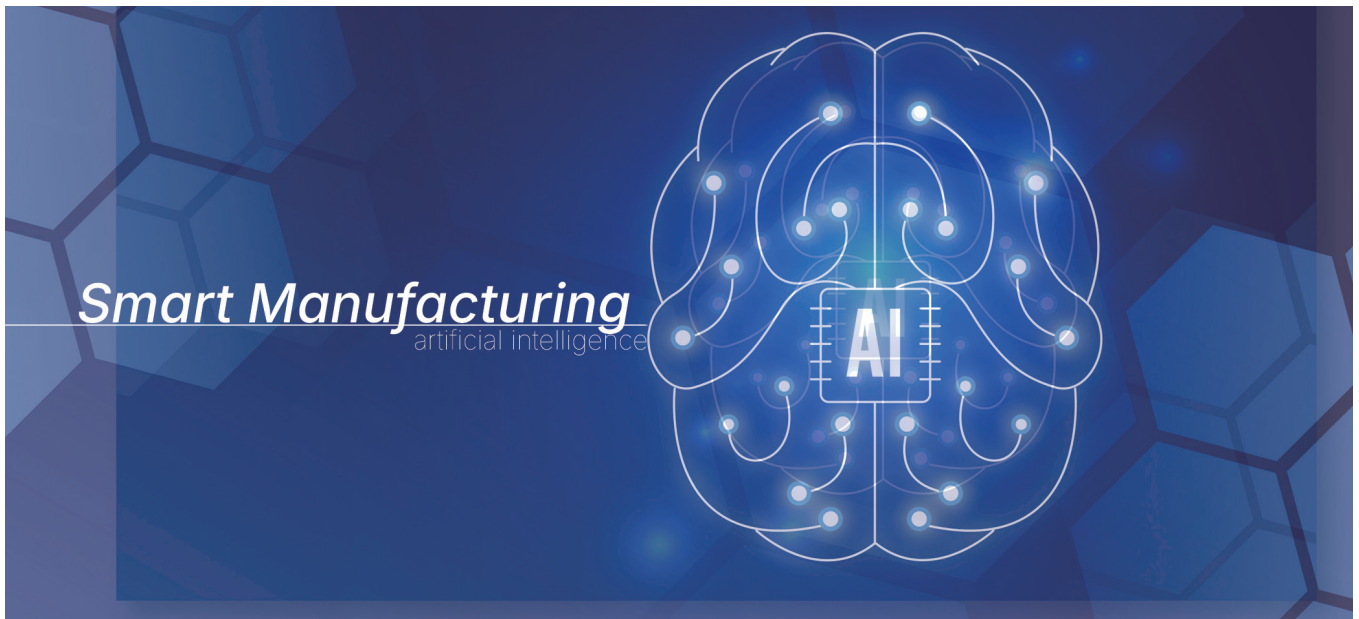


MILDEF CRETE

Corporate Newsletter



Introduction

By Brian Chiu

2026 is regarded as the “Year of AI,” marking the accelerated adoption of AI applications. Artificial intelligence is gradually evolving from an emerging technology into an integral part of daily business operations, becoming an important tool for improving work efficiency, strengthening professional capabilities, and driving business transformation.

With “AI-Driven Future, Creating Value Together” as the theme of this issue of our corporate newsletter, we invite all departments to reflect on their current work and explore how AI tools can be used to turbocharge existing capabilities and productivity. Whether in R&D and design, manufacturing management, quality analysis, sales and marketing, procurement, finance, human resources, or administrative operations, AI can assist with data analysis, information organization, document preparation, process automation, and decision support, allowing employees to spend more time on work that requires professional judgment and creates greater value.

We sincerely invite all departments to share practical

Introduction

DS16P Rugged Tablet

Shared Computing Platform

From Global Supply Chains to Intelligent Decision-Making

The Rise of AI PCs: A New Sales Mindset from Product to Market

AI-Driven Quality Innovation: Implementing AS9100

Information Security Management System — Implementing ISO/IEC 27001 Together for a Safer Workplace

Digiwin’s “AI Document Assistant”: Moving Enterprises from Manual Data Entry to Intelligent Operations

AI Vision Inspection for Assembly Lines

Telling the Product Story Through Visuals

examples of AI applications in their daily work, including process improvements, efficiency gains, and innovative results. We also welcome ideas and suggestions for areas where AI could be introduced in the future.

The value of AI is not only about “getting things done faster,” but more importantly, about enhancing the professional capabilities of every employee and enabling each department to work in a smarter and more efficient way. Through this sharing, we hope that different departments can exchange their experiences in applying AI and together embark on our 2026 “Year of AI.”

DS16P Rugged Tablet

Proven Legacy. Next-Generation Performance.

By Rachel

Building on years of product development and field experience with the DS13 Rugged Tablet, the next-generation DS16P continues the proven 10.1-inch rugged mobile computing platform while introducing significant upgrades in computing performance, display capability, connectivity, and system expandability.

The DS13 established a solid foundation for harsh-environment applications with an Intel® Core™ i7-7Y75 processor, a 10.1-inch WUXGA 800-nit display, MIL-STD-810G compliance, IP65 protection, and optional MIL-STD-461G solutions. The new DS16P takes this proven platform to the next level with the Intel® Core™ Ultra 7 155U processor and an active cooling design, delivering greater and more consistent computing performance for modern mission applications.

The DS16P features an upgraded 10.1-inch WUXGA 1000-nit high-brightness display with optical bonding and multi-touch capability, improving outdoor readability and user interaction. Its memory architecture has also advanced to DDR5, supporting up to 64GB to provide greater flexibility for demanding applications and future system expansion.

For extended field operations, the DS16P incorporates a hot-swappable battery design, allowing battery replacement while the system remains operational. Connectivity has also been significantly enhanced with Thunderbolt™ 4 and 2.5GbE LAN, together with configurable options including a second LAN, COM, and Fischer I/O, enabling the platform to adapt to a wide range of mission and system integration requirements.

In ruggedness, the DS16P features an aluminum-magnesium alloy enclosure and advances from the DS13's MIL-STD-810G compliance to MIL-STD-810H, while maintaining IP65 protection. Optional MIL-STD-461G Ground Army and Ground Navy EMC solutions are also available for military applications.

From DS13 to DS16P

Computing Platform

Core™ i7-7Y75 → Core™ Ultra 7 155U

Memory

16GB LPDDR3 On-board → DDR5, up to 64GB

Outdoor Display

10.1" WUXGA / 800 nits → 10.1" WUXGA / 1000 nits

High-Speed Connectivity

GbE / USB 3.1 → 2.5GbE / Thunderbolt™ 4

Rugged Standard

MIL-STD-810G → MIL-STD-810H



More than a successor to the DS13, the DS16P represents the next generation of MilDef Crete's 10.1-inch rugged tablet platform — preserving proven rugged reliability while delivering the performance, connectivity, and expansion capabilities required for tomorrow's mission-critical applications.

Shared Computing Platform

One Core Architecture Multiple Mission Platforms

By Ken

As mission systems such as GCS, Controller, and GVA become increasingly complex, redesigning the motherboard, computing architecture, and I/O for every product requires significant R&D resources and increases the time needed for product development and validation.

To improve development efficiency, MilDef Crete has independently developed a COM Express shared computing platform. By separating the core computing module from the I/O, mechanical design, and application-specific functions required by each product, the platform establishes a common architecture that can be extended across multiple products.

The platform provides resources including DDR5, NVMe, PCIe Gen4, Display, and USB, while reserving high-speed PCIe expansion capability. Depending on product requirements, it can be configured with networking, storage, display, and other functional modules, allowing the same core computing architecture to be quickly adapted to different mission systems.

This shared platform currently serves as an important foundation for the development of products such as GCS21 and RC08P, and can be further extended to Controller, GVA (Generic Vehicle Architecture), and other mission computing systems in the future.

With this shared platform, new products no longer require a complete computing architecture to be designed from scratch each time. The R&D team can focus more resources on the areas that truly differentiate each product, including I/O, communications, control interfaces, mechanical design, and system integration. This helps shorten development cycles, reduce duplicated development costs, and increase technical commonality across different products.

Platform Value

- Accelerated Product Development | A shared core computing architecture shortens new product design cycles.
- Reduced Development Costs | Reduces duplicated motherboard and core architecture development across different products.
- Flexible Function Expansion | Provides a wide range of interface resources, including PCIe, NVMe, Display, and USB.
- Cross-Product Platform | The same core architecture can be extended to different products such as RC08P and GCS21.
- Support for Future Mission Systems | Can serve as a common computing foundation for systems such as Controller, GCS, and GVA.



From a single core computing module to multiple mission platforms — a shared architecture accelerates product development, enhances design flexibility, and reduces development costs for next-generation mission systems.

Make the technical wording more naturalRemove repeated platform benefits

From Global Supply Chains to Intelligent Decision-Making — The New Role of Procurement in the AI Era

By Rita

2026 is widely regarded as the beginning of a new era for AI. Artificial intelligence has evolved from a technology trend into a major force driving corporate innovation and industrial transformation, profoundly reshaping the way we work and think. Amid this transformation, procurement is no longer simply a back-office function responsible for price verification and purchase order issuance. It has become a strategic frontline function that connects companies with global markets externally while ensuring operational resilience internally. Faced with rising geopolitical tensions, increasingly frequent extreme weather events, and fluctuations in the prices, supply, and demand of critical components, procurement professionals are taking on a new role — transforming from traditional cost controllers into intelligent decision-makers empowered by data and AI.

I. Supply Chain and Global Challenges in the AI Era

Today's global supply chains are operating in an environment of unprecedented volatility and uncertainty. On one hand, intensifying geopolitical conflicts, rising trade barriers, and frequent extreme weather events are creating significant challenges for international logistics and regional supply and demand. On the other hand, the rapid growth in global demand for AI computing power and hardware is further intensifying competition for critical components and raw materials.

For procurement teams, traditional operating models that rely heavily on individual experience and periodic reviews are no longer sufficient to address three major challenges:

- Severe fluctuations in market prices and supply and demand: From critical chips and memory to basic metals, international commodity and material prices are changing rapidly. Traditional tracking methods often lag behind market developments, resulting in reactive responses only after prices surge or supply-demand imbalances occur, thereby increasing operating costs and procurement risks.
- Increasing complexity of multi-source supply chain management: To reduce regional risks associated with a single-source supply model, companies are increasingly adopting multi-source and geographically diversified sourcing strategies. However, managing supplier quality, maintaining consistency in Incoming Quality Control (IQC), and tracking delivery performance across multiple suppliers significantly increases administrative costs and communication complexity.
- Supply disruption risks for long-tail and long lead-time parts: During product development and production, unexpected shortages of critical or specialized components can directly result in production line shutdowns. The ability to anticipate changes in lead times and identify potential shortages has therefore become essential to ensuring Business Continuity Planning (BCP).

II. Geopolitical and Supply Chain Risk Management: AI as an Intelligent Defense System

In the face of geopolitical conflicts, trade barriers, extreme weather, and other external risks, the traditional procurement model of responding only after problems occur is becoming increasingly unsustainable. AI-enabled supply chain risk management can help companies establish a more proactive defense mechanism:

1. Multi-dimensional geopolitical risk alerts:

AI can integrate global news, customs data, and weather information in real time to monitor geographical risks surrounding major supplier facilities and logistics hubs. When shipping routes are disrupted, tariffs change, or regional tensions escalate, the system can immediately assess potential impacts and identify

alternative routes or backup production capacity.

2. Supplier quality and performance health analysis:

By integrating quarterly IQC quality data, on-time delivery performance, and other supplier information, AI models can create dynamic risk profiles for individual suppliers, identify early signs of quality deterioration, and enable timely activation of secondary sourcing plans.

III. Data-Driven Intelligent Procurement Decision-Making

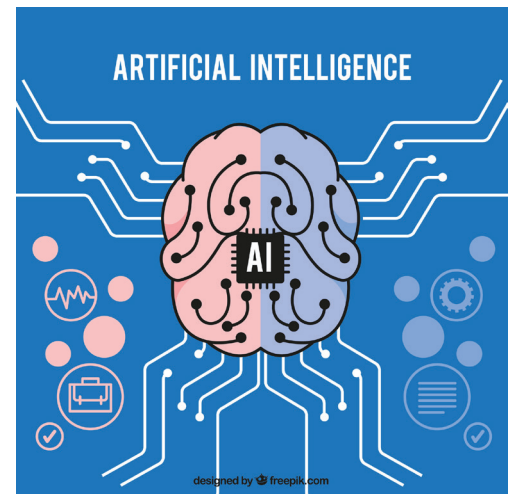
With risk intelligence and large volumes of data as the foundation, procurement managers can move beyond experience-based judgment toward data-driven, intelligent procurement decisions:

1. Dynamic demand forecasting and optimized price locking:

By combining historical procurement data with global raw material trends, AI models can forecast potential price fluctuations and provide recommendations on optimal purchasing timing and lock-in price strategies, helping procurement teams balance inventory costs and price risks.

2. AI-assisted contract review and commercial negotiations:

Generative AI can assist in reviewing contractual risks in international procurement agreements. It can also analyze cost structures across supplier Bills of Materials (BOMs) and estimate potential negotiation opportunities, significantly improving the efficiency and effectiveness of commercial negotiations.



IV. Cross-Functional Collaboration: AI Applications in New Product Development Schedules and Sales Forecasting

The intelligent transformation of procurement must begin at the front end of business processes. By using AI to connect R&D project schedules with sales forecasts, companies can improve overall operational efficiency.

• Integration with R&D Project Management — Dynamic Matching of Critical Component Lead Times and Project Schedules:

New product development schedules are often delayed when long lead-time components are not identified early enough. AI models can compare project milestones with historical and current lead-time data in real time. When R&D teams select high-risk components, the system can issue alerts and proactively recommend alternative components with comparable performance, more stable lead times, and potential cost advantages, helping project managers maintain better control over development schedules.

• Integration with Sales Forecasts — Intelligent Order Forecasting and Dynamic Material Planning:

Traditional sales forecasts may result in excessive inventory or shortages due to the bullwhip effect. With AI forecasting models, procurement teams can cross-reference historical orders with market trends and generate reasonable confidence-interval forecasts for specialized parts, common parts, and long lead-time components. Safety stock levels can then be dynamically adjusted to align material preparation more closely with actual market demand and reduce the risk of excess and obsolete inventory.

V. AI-Based Full Lifecycle Management of Components for Future Systems

To support future system development and smart manufacturing initiatives, procurement management can further use AI to establish a more refined control mechanism for specialized parts, common parts, and End-of-Life (EOL) components:

- **Specialized Parts — Dynamic Matching of Project Lifecycles and MOQ:**
AI can integrate project progress with sales forecasts to calculate optimal ordering times and Just-in-Time (JIT) delivery schedules. Before a project reaches its final stage, the system can proactively issue alerts regarding remaining specialized inventory to minimize the risk of obsolete customized components.
- **Common Parts — Intelligent Cross-BOM Consolidation and Combined Purchasing:**
AI can automatically scan BOMs across all product lines and calculate total demand across projects through consolidation. This can enable optimal volume purchasing while allowing inventory to be dynamically allocated across different product models, significantly improving inventory turnover and capital efficiency.
- **EOL Parts — Global Lifecycle Alerts and Intelligent Alternative Part Recommendations:**
AI can automatically monitor manufacturer announcements and relevant databases and issue alerts 6–12 months before components reach EOL. Through pin-to-pin compatibility analysis, the system can recommend available alternative components and even provide recommendations for optimal Last Time Buy (LTB) quantities.

VI. Internal Systems and Organizational Transformation: AI-Enabled Material Control and Procurement Capabilities

External risk management and cross-functional collaboration must be supported by strong internal systems and procurement capabilities.

1. Material Control — AI-Driven Intelligent Inventory Management and Dynamic Scheduling

- **Material readiness analysis and dynamic scheduling under limited resources:**

Traditional LRP often fails to fully account for production capacity and material constraints, which may result in production delays due to material shortages. In the future, implementing APS could enable dynamic simulation of material availability and production requirements. By comparing BOM requirements with on-hand and in-transit inventory in real time, the system could automatically perform material readiness analysis, ensuring that required materials are available before production begins and significantly reducing Work-in-Process (WIP) accumulation and production downtime.

- **Automatic alerts and consumption optimization for slow-moving inventory:**

AI could continuously monitor inventory turnover. When the movement frequency of a component declines, the system could automatically notify material control and R&D teams and identify opportunities to consume the inventory through new product models or maintenance requirements.

- **Dynamic safety stock and automatic Re-order Point calculation:**

Instead of relying on fixed safety stock formulas, AI could dynamically adjust the optimal inventory level and Re-order Point for each component based on the latest supplier lead times, factory production schedules, and market fluctuations, balancing material availability with lower capital requirements.

2. Procurement Organization — Empowering Employees to Transform from “Operators” into “Strategic Analysts”

- Automating routine tasks to free up team capacity:

Generative AI could automate repetitive processes such as RFQs, price comparisons and negotiations, PO creation, delivery follow-ups, and invoice reconciliation, allowing procurement professionals to focus on higher-value activities such as strategic supplier collaboration and cost structure optimization.

- Knowledge transfer and development of data-driven decision-making capabilities:

An intelligent procurement knowledge base could capture experienced buyers' negotiation expertise, cost negotiation techniques, and risk management SOPs and transform this knowledge into AI Agents, helping new employees become productive more quickly while enabling the organization to move toward a data-driven intelligent decision-making culture.

VII. Creating Value through Intelligence: Cross-Functional Collaboration and Future Outlook

The intelligent transformation of procurement cannot be achieved by a single department alone. Instead, procurement can serve as a digital hub for enterprise-wide transformation. From external supply chain risk management and intelligent procurement decisions to R&D project material management, sales demand forecasting, refined internal material control systems, and enhanced procurement organizational capabilities, AI can help shift procurement management from traditional reactive problem-solving toward proactive risk prevention and intelligent collaboration.

Every innovation, every improvement, and every effective use of AI represents another important step toward becoming a smarter enterprise. As we enter the AI era of 2026, the procurement team will continue to explore and deepen the application of intelligent decision-making tools, working together with all departments to drive transformation through data, document our journey toward intelligent transformation, and build a smarter future with greater resilience, flexibility, and competitiveness.

Fix the section numbering and missing bulletAdd a stronger executive summary

The Rise of AI PCs: A New Sales Mindset from Product to Market

By Tina, Channel Business Division

The rise of AI PCs is reshaping the personal computer landscape. PC brands are shifting away from the traditional product mindset of competing on specifications and benchmark scores toward a market strategy centered on local AI inference capabilities and intuitive user experiences. Through more affordable product offerings, hybrid AI applications, and a redefinition of hardware value, the industry is actively creating a new wave of PC upgrades.

Shifting Product Mindset

- **From Cloud to Local:** Emphasizing built-in Neural Processing Units (NPUs), enabling PCs to smoothly run generative AI and voice interaction applications without requiring an internet connection.
- **Higher Specification Standards:** To support high-performance computing, 32GB of memory and efficient thermal designs are becoming standard performance requirements for next-generation products.
- **Experience-First Marketing:** Moving away from complex AI terminology and instead focusing on improved system stability and greater efficiency in everyday work.

A New Mindset for Market and Sales

- **AI Moving into More Affordable Price Segments:** Major chip manufacturers are expanding NPUs from high-end models into mid-range and entry-level products, accelerating AI PC adoption through more affordable options.
- **Targeting Specific Use Cases:** Marketing is shifting away from technical specifications toward demonstrating practical benefits such as automatic document generation, real-time meeting summaries, and intelligent assistants.
- **Integration with Software Ecosystems:** Deeper integration between operating systems and AI software tools creates stronger incentives for users to upgrade.

How PC Channels Can Capture AI PC Trends, Product Positioning, Customer Needs, and Sales Opportunities

As AI PCs gain momentum, PC sales channels must transition from the traditional model of “selling hardware specifications” to consultative selling focused on “selling AI solutions.” The key is to redefine product positioning, accurately identify target customer groups, and upgrade sales approaches.

Product Positioning: Tiered by Performance and Use Case

When displaying and categorizing products, retailers should move beyond traditional CPU/RAM-based classifications and instead position AI PCs according to AI computing performance (TOPS) and key use cases:

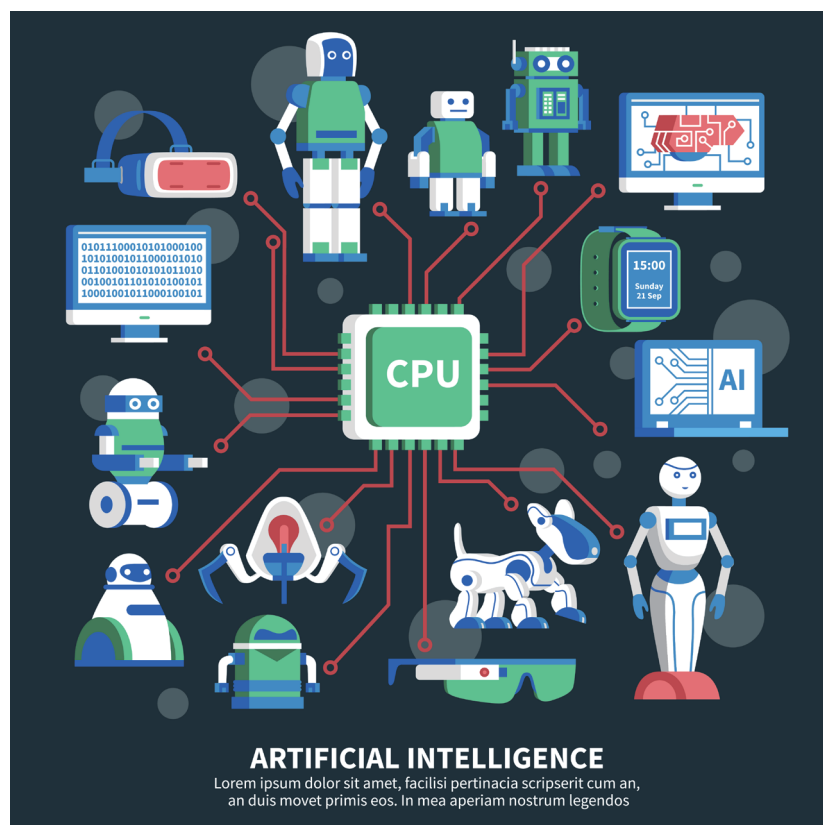
- **Entry-Level (Below 40 TOPS):** Focuses on basic Microsoft Copilot features built into the system. Suitable for document processing, web browsing, and light office work.
- **Advanced Business (40–50 TOPS):** Meets Microsoft Copilot+ PC standards, with an emphasis on real-time translation, automatic meeting summaries, and local processing of private data.

- **Professional Creator (Above 50 TOPS / with Discrete GPU):** Focuses on running local Large Language Models (LLMs), AI image generation, automated video editing, and 3D rendering.

Customer Needs and Pain-Point Solutions

When serving different customer groups, sales channels should identify their specific pain points and communicate the value of AI PCs in terms of “how much time they can save.”

- Business Professionals and Corporate Buyers
 - Pain Points: Time-consuming meeting documentation, language barriers in international communication, and concerns about cloud data security.
 - Solutions: Emphasize the privacy and security benefits of local NPU processing, along with one-click meeting summaries and real-time two-way translation.
- Content Creators and Designers
 - Pain Points: Long waiting times for cloud AI computing resources, high subscription costs, and time-consuming high-resolution video rendering.
 - Solutions: Highlight fast local AI image generation and automatic editing-point detection, while emphasizing the potential long-term savings on cloud subscription fees by investing in capable hardware.
- General Consumers and Students
 - Pain Points: Uncertainty about how AI can benefit them and concerns about affordability.
 - Solutions: Demonstrate practical applications such as intelligent photo organization and voice assistants for automatic scheduling, while lowering the entry barrier through more affordable AI PCs.



Channel Sales and Marketing Strategies

- **Experiential Marketing:** Set up dedicated “AI Experience Zones” in stores. Instead of simply displaying benchmark software, provide ready-to-use prompts so customers can experience features such as “generating a presentation outline in three seconds” or “removing an image background with one click.”
- **Consultative Sales Training:** Transform frontline sales staff into AI consultants. Shift the sales pitch from “This model has the latest processor” to “This PC can help you save an hour of work every day.”
- **Hardware and Software Bundling:** Partner with well-known AI software providers and online learning platforms. Offer practical AI courses or software licenses with the purchase of an AI PC to create unique added value and differentiation for the sales channel.
- **Trade-In Promotions:** Encourage users with PCs that are three to five years old to upgrade by highlighting the limitations of older hardware in running modern AI applications, while offering attractive trade-in incentives to lower the cost of upgrading.

AI-Driven Quality Innovation: Implementing AS9100

By Martin

In response to the stringent requirements for quality, safety, and traceability in the aviation, space, and defense industries, our company is actively implementing the AS9100 Quality Management System and preparing for certification. In addition to strengthening our quality management processes, we are incorporating our existing FQC automation and OQC AOI image recognition technologies into the management system. Through standardized, digitalized, and data-driven inspection mechanisms, we aim to improve product quality consistency and traceability.

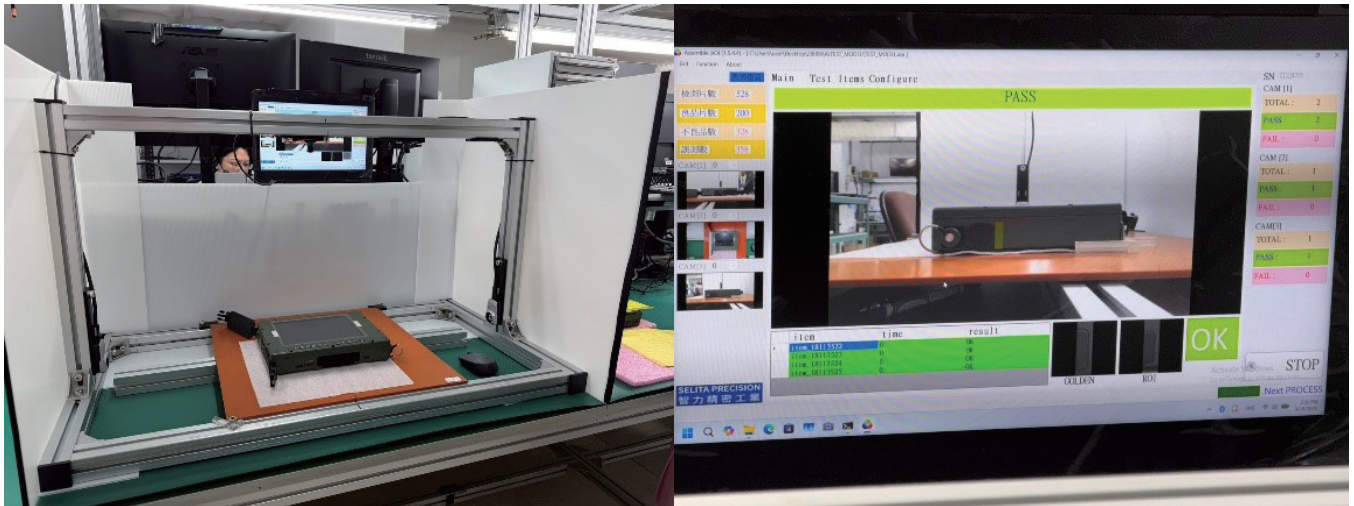
Compared with processes that rely entirely on manual operations, automated FQC processes can perform inspections using consistent acceptance criteria, reducing risks caused by variations in human operation and repetitive tasks. Inspection results are also automatically recorded, creating quality records that can be easily retrieved and traced. These mechanisms support key AS9100 requirements related to process control, monitoring and measurement, documented information, and product conformity management.

Mildel FQC v1.0 Dev by Spark					
Model 600-11507004_RK15_20260813 HW Info Scan Edit Mode Save Save As Load Default Model* RK15 Mo No. 600-11507004 SN* T1234567 Tester 56000003 Remark RK15 Standby 2026-08-18 11:44:59 RUN					
HW Info		Golden Spec		Information	Status
1	✓ OS	Windows 10 Pro x64		--	Standby
2	✓ CPU	Intel(R) Xeon(R) W-11865MLE @ 1.50GHz		--	Standby
3	✓ CPUID	BFFBFBFF000806D1		--	Standby
AUTO				Information	Status
10	✓ DU_TEST_BOARD			BYPASS	Standby
11	✓ Line_In&Out			BYPASS	Standby
12	✓ USB2.0_3.0			USB-Passmark_v...	Standby
13	✓ S3_S4			all.bat	Standby
14	✓ Device_Manager_Check			Device_Man...	Standby
15	✓ ODD			Start_ODD.b...	Standby
MANUAL				Information	Status
1	✓ LCD_Test			DisplayX.exe	Standby
2	✓ COM_Port			COM_Tool_v...	Standby
3	✓ LAN			LAN_Tool_A...	Standby
4	✓ 2nd_LAN			BYPASS	Standby
5	✓ LAN_Led	Check LAN LED		()	Standby
6	✓ Speaker_L&R			SoundChec...	Standby
7	✓ MIC			BYPASS	Standby

During the Outgoing Quality Control (OQC) stage, our company uses Automated Optical Inspection (AOI) image recognition technology to inspect product appearance and identify defects. The system establishes standardized image samples, feature analysis, and acceptance criteria based on the first article to assist in detecting appearance abnormalities. When a suspected defect is identified, the system can flag and classify it or trigger subsequent re-inspection and nonconforming product handling processes, helping prevent defective products from reaching customers.

The introduction of AOI is not intended simply to replace manual visual inspection. Instead, it combines the consistency of automated equipment with the professional judgment of quality personnel to establish a more reliable, multi-level inspection mechanism. For borderline cases that cannot be clearly determined by the system, qualified personnel will perform further review. The results are then fed back into the inspection criteria or recognition model to continuously improve inspection capabilities.

AS9100 certification is not simply about obtaining a certificate. More importantly, it is about establishing a quality management system that can operate effectively over the long term, continuously improve, and earn customer trust. We will continue to strengthen risk management, product safety, process control, and traceability mechanisms to meet the quality challenges of the aerospace and high-reliability industries with more consistent quality, greater data transparency, and more reliable delivery capabilities.



Our company is currently proceeding with the implementation of the AS9100 Quality Management System and preparations for certification according to plan. The official certification status will be subject to the final audit results and formal announcement.

Information Security Management System — Implementing ISO/IEC 27001 Together for a Safer Workplace

By Vincent

To continuously strengthen our information security management capabilities, protect company and customer data, and respond to increasing cybersecurity threats and regulatory requirements, the company has officially launched the implementation of the ISO/IEC 27001 Information Security Management System (ISMS) this year.

ISO/IEC 27001 is not just the responsibility of the IT department — it requires the participation of everyone in the company. Through systematic risk management, information security policies, access control, incident reporting, and continuous improvement mechanisms, we will establish a more comprehensive, consistent, and sustainable information security management process.



Why Is the Company Implementing ISO/IEC 27001?

Implementing ISO/IEC 27001 will help the company:

- Systematically identify and reduce information security risks.
- Protect important information belonging to the company, customers, and business partners.
- Strengthen the management of user accounts, access rights, devices, and data.
- Establish mechanisms for reporting, responding to, and recovering from information security incidents.
- Enhance customer and business partner confidence in our information security capabilities.
- Continuously improve our overall information security maturity through regular reviews and improvements.

Every Employee Is Part of Our Information Security Defense!!!

Information security is not only a technical issue; it is closely connected to everyone's daily work. We ask all employees to follow these principles:

- Properly protect personal accounts and passwords. Do not share accounts or disclose passwords to others.
- When receiving suspicious emails, links, or attachments, verify the source before clicking or downloading anything.
- Lock your computer when leaving your workstation to prevent unauthorized access to company information.
- Use data only as required for your work, and avoid storing confidential documents on personal devices or unauthorized cloud services.
- Do not use software, USB drives, or external services that have not been approved by the company to process company data.
- Immediately report any suspected data leakage, account misuse, lost devices, or other information security incidents.
- Participate in information security training, surveys, audits, and related improvement activities arranged by the company.

Important Actions During the Implementation Period

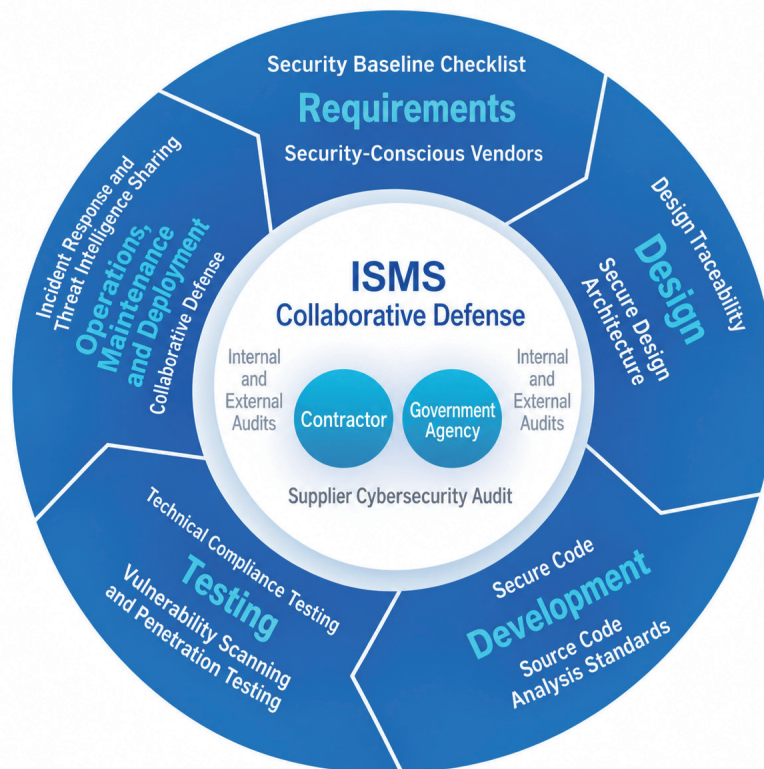
During the implementation and certification process, the company may carry out the following activities:

- Information asset inventory and data classification.
- Information security risk assessments and improvement tracking.
- Announcement of information security policies and operating procedures.
- Information security awareness training for employees.
- Reviews of access rights, devices, backups, and system configurations.
- Information security incident reporting and response drills.
- Internal audits and management reviews.

Please complete the required activities according to company notifications and provide accurate feedback on any issues encountered in your daily work. The purpose of the system is not to increase everyone's workload, but to help us protect information in a clearer and more consistent manner while reducing risks caused by oversight or incomplete processes.

Building a Security Culture Together

Information security requires the participation and support of every employee. By starting with the small actions in our daily work and following the principle of “Verify Before Use, Protect While Handling, and Report When Detected,” we can work together to build a safe, reliable, and trustworthy working environment.



Digiwin's "AI Document Assistant": Moving Enterprises from Manual Data Entry to Intelligent Operations

By Vincent

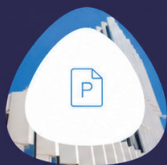
In daily business operations, documents such as sales orders, purchase orders, receiving records, invoices, and expense receipts often come in different formats and through different channels. Sales, procurement, finance, and administrative staff must repeatedly enter data, verify fields, and create records in business systems. This not only takes considerable time but also increases the risk of human input errors that may delay subsequent processes.

Digiwin's "AI Document Assistant" is designed specifically for these highly repetitive data-processing tasks. By combining generative AI, image recognition, text extraction, and enterprise ERP systems, it helps companies convert unstructured documents into data that can be directly used by business systems, shifting employees' work from "manual data entry" to "quick verification."

What Is the AI Document Assistant?

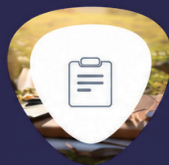
The AI Document Assistant is an AI application integrated with enterprise workflows. It can recognize sales orders, purchase orders, receiving records, invoices, receipts, and other documents or image files, extract key information, and generate corresponding ERP documents according to the company's predefined fields and processes.

Digiwin AI Document Assistant - Top 5 Enterprise Application Scenarios



Documents come from various sources and in different formats, making standardization difficult. This often results in a high error rate and heavy reliance on careful manual processing. Information must also be manually transferred into the ERP system, which is time-consuming and prone to errors.

Document Generation
(Purchase-to-Sales Order Conversion, Expense Forms, Handwritten Accounts Payable Documents, etc.)



Shop-floor work reports, inspection forms, and delivery notes are often handwritten or provided as image files. As a result, data cannot be entered into the system in real time and must be manually transcribed. This process is time-consuming, while inconsistent formats can lead to data-entry errors, affecting production progress monitoring and quality traceability.

Automatic Work Order Conversion & Batch Tracking



Documents come in various formats, and the information entered is often inconsistent or unstructured. Frontline personnel therefore spend significant time transcribing data and verifying fields, while critical information such as product models and batch numbers can easily be overlooked.

Customer Complaint & Quality Issue Management
Closed-Loop Tracking and Automatic Knowledge Archiving



Documents are often PDF scans or paper drawings that cannot be automatically classified and archived. File names must be manually assigned based on product models or dates, which can easily lead to errors. Information marked on drawings, such as dimensions and part numbers, is also difficult to manually extract and enter into the system.

R&D Document Classification



Engineers need to manually review drawings and interpret design descriptions one by one, which is time-consuming and may lead to misunderstandings due to differences in interpretation. In addition, previous design experience is often not systematically documented, making it difficult for new employees to reference previous projects and resulting in repeated design work or trial and error.

Extract Design Descriptions, Dimensions, and Structural Information
Build a Case Database for Search and Design Recommendations

Digiwin's official demonstrations include applications such as recognizing customer orders, creating purchase orders, processing receiving data, and importing invoice or receipt information into relevant workflows. Users do not need AI model development expertise to perform document recognition, data correction, and document creation through the system.

Simply put, a traditional process may look like this:

Receive document → Manual review → Manual data entry → Create ERP document → Verify each field

With the AI Document Assistant, the process can become:

Upload or photograph document → AI recognition and extraction → System generates document → User verification

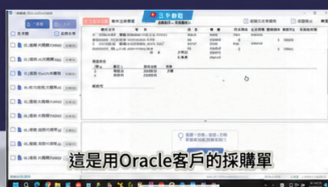
Core Functions

1. Multi-Format Document Recognition

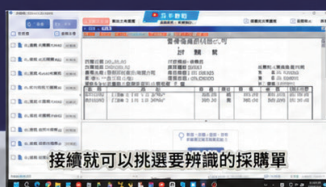
Documents received by companies often come in different formats, including PDFs, scanned files, photos, Excel files, and supplier-specific order formats. The AI Document Assistant can use image recognition and multimodal large language models to analyze text, tables, and fields within documents and extract information such as part numbers, quantities, unit prices, dates, and supplier details.

Compared with traditional fixed-format OCR, which can only recognize information in predefined locations, generative AI is better suited to handling business documents with varying layouts and non-standardized fields.

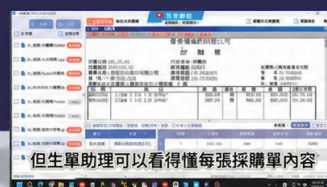
AI Document Assistant: Document Recognition Example



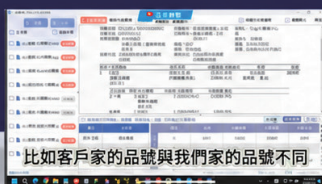
- ① Supports document import from multiple sources.



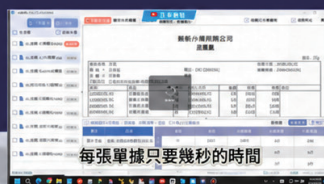
- ② Allows batch selection of source documents for recognition.



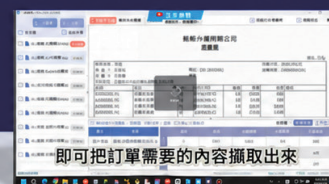
- ③ The AI Document Assistant can directly read documents and convert the content automatically.



- ④ It can also match and convert between internal and external part numbers.



- ⑤ Fast and consistent recognition, with the ability to learn from errors and prevent them from recurring, improving overall work quality.



- ⑥ Let AI handle complex routine tasks, freeing up employees' valuable time to focus on more important work.

2. Automatic Extraction of Key Fields

The system can extract the information required by the company according to different document types. For example, a purchase order may require supplier information, part numbers, quantities, and delivery dates, while an invoice may require the invoice number, date, amount, and tax information.

3. Automatic ERP Document Creation

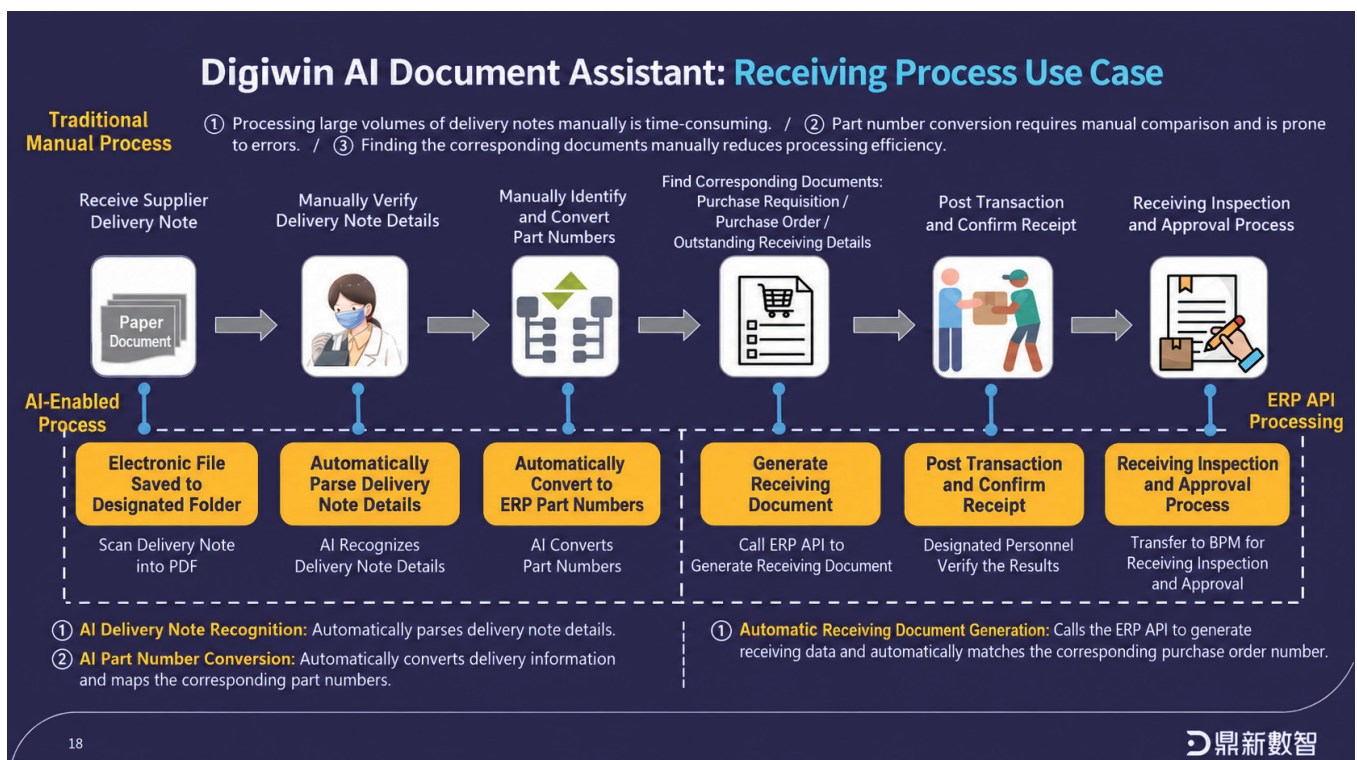
Once the data has been recognized, the AI Document Assistant can transfer the results into the ERP workflow and create the corresponding documents. Users can directly open the generated document number for review without re-entering each field into the system, reducing repetitive work and the time required to transfer data between systems.

The value of this function goes beyond simply “understanding documents.” It connects AI recognition results directly with existing business processes, creating an integrated workflow from document receipt and data extraction to ERP document creation.

4. Data Comparison and Error Checking

One of the most important tasks in enterprise document processing is ensuring that document contents match existing system data. The AI Document Assistant can help compare documents with existing records and identify discrepancies in part numbers, quantities, amounts, or supplier information, allowing employees to focus on handling exceptions.

As a result, employees can shift from “manually entering every piece of data” to “letting AI process most of the data first and then performing verification.” This improves efficiency while maintaining necessary human review and internal controls.



Practical Applications

Procurement and Receiving Management

Procurement personnel may need to process large volumes of supplier quotations, purchase orders, and receiving records every day. With the AI Document Assistant, companies can first recognize the contents of these documents and then convert the data into purchasing or receiving documents, reducing the time and error risks associated with manual data entry.

This type of application is particularly valuable for companies that receive documents in different formats from different suppliers, as procurement personnel no longer need to handle each document format through a completely separate manual process.

Invoices and Expense Receipts

Finance or administrative personnel can use a mobile phone to photograph invoices, receipts, or expense documents. AI can then recognize the relevant fields and assist in creating reimbursement or payment request data. Digiwin's enterprise AI assistant also includes travel expense reimbursement and document recognition as administrative application scenarios.

This can effectively reduce the workload associated with processing large volumes of receipts at the end of each month while allowing data to enter the system earlier and improving the timeliness of expense management.

AI Document Assistant

Powered by Core AI Capabilities

AI Invoice Recognition

(Invoice Date, Invoice Number, Purchase Order Number, Total Sales Amount, Taxable Amount, Tax-Inclusive Total, Seller, Item Description, Quantity, Unit, Unit Price, Amount)

- Uses the latest generative AI models to recognize and extract key information.

AI Part Number Conversion

- Uses AI-based fuzzy text matching for part number conversion (additional processing can be added as needed).

Electronic Invoice

2025-04-02

Invoice Number: LL67094744
Buyer: 股份有限公司
Unified Business Number (UBN):
Address:

Format: 25

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Item Description	Quantity	Unit Price	Amount	Remarks
99-127A003-106H ITP345, with internal Ethernet	1	●900	●900	發給採購單的工機票照開 發給開單 發給開單註註3311聯安聯通 北松開聯通發給一開A96 字開開

Business Entity's Uniform Invoice Stamp

統一編號: 12325008220
營業士開:
開單TWD:
開單:
發票日期: 2025-07-31

Total Sales Amount		●500	Business Entity's Uniform Invoice Stamp
Business Tax	Taxable	V	Zero-Rated
Tax-Exempt	●25		
Total	525	●	
Total Amount in New Taiwan Dollars (in Chinese Characters)		伍佰二十五元整	235B1136共5張

Converting Design Drawings into Work Orders

In manufacturing, design drawings, engineering documents, and revision data often need to be converted into production-related documents. The AI Document Assistant can be applied to design changes, order updates, and automatic work order generation, helping companies shorten the data conversion process from order receipt to production.

Such applications can also reduce production risks caused by incorrect revision interpretation or omissions during manual data entry. However, engineering and production personnel should still perform appropriate reviews during actual implementation.

What Benefits Can It Bring?

Faster Data Processing

Digiwin has presented a manufacturing scenario involving the processing of 50 orders per day. Traditional manual processing could take more than 150 minutes, while the AI Document Assistant could reduce the processing time to approximately five minutes, representing an efficiency improvement of up to 96%. This figure comes from application cases presented by the vendor and its partners, and actual results may vary depending on document formats, data quality, and the complexity of business processes.

Reduced Manual Input Errors

Manual data entry can easily result in errors involving part numbers, quantities, amounts, or dates. By allowing AI to extract and format the data first, followed by user verification, companies can reduce errors caused by repetitive input while making discrepancies easier to identify and address.

Faster Accumulation of ERP Data

When sales order, purchasing, receiving, and expense data can enter the ERP system more quickly, companies can gain more timely visibility into inventory, sales, procurement, and financial conditions. This not only improves front-end operational efficiency but also provides a more complete data foundation for subsequent reporting, analysis, and management decision-making.

Improving Employee Productivity

The AI Document Assistant is not simply intended to replace employees. Instead, it frees them from large volumes of repetitive, low-value data-entry work. Procurement personnel can focus more on supplier management and cost negotiations, finance personnel can concentrate on exception reviews and financial analysis, while managers can obtain operational information more quickly.

Information Security and Deployment

For manufacturers, financial institutions, and companies handling highly sensitive information, sending orders, customer data, and financial documents to external cloud environments may raise information security and compliance concerns. Digiwin provides options for private enterprise AI deployment, allowing AI assistants to be integrated with systems such as ERP, BPM, and MES while keeping sensitive data within an environment controlled by the company.

In 2025, Digiwin also worked with Aetina and Qualcomm to demonstrate an AI Document Assistant solution using an edge AI inference system and Qualcomm's on-device AI solution to support generative AI workloads in isolated network environments. This type of architecture is suitable for companies that require data to remain off the cloud, low-latency processing, or deployment within internal networks.

Conclusion

The core value of Digiwin's AI Document Assistant lies in extending generative AI beyond chat and Q&A applications and integrating it directly into enterprise ERP systems and daily workflows. Through document recognition, data extraction, field correction, and automatic document creation, it helps companies process large volumes of purchase orders, sales orders, invoices, receiving records, engineering documents, and other business data.

For companies that still rely heavily on manual data entry, the AI Document Assistant can serve as a practical starting point for digital transformation. Companies do not need to completely overhaul their systems from the beginning. Instead, they can start with a single department, document type, or process, gradually improving data quality and gaining implementation experience, ultimately building a faster, more accurate, and more traceable intelligent operating model.

Application: R&D Document Classification

AI Vision Inspection for Assembly Lines

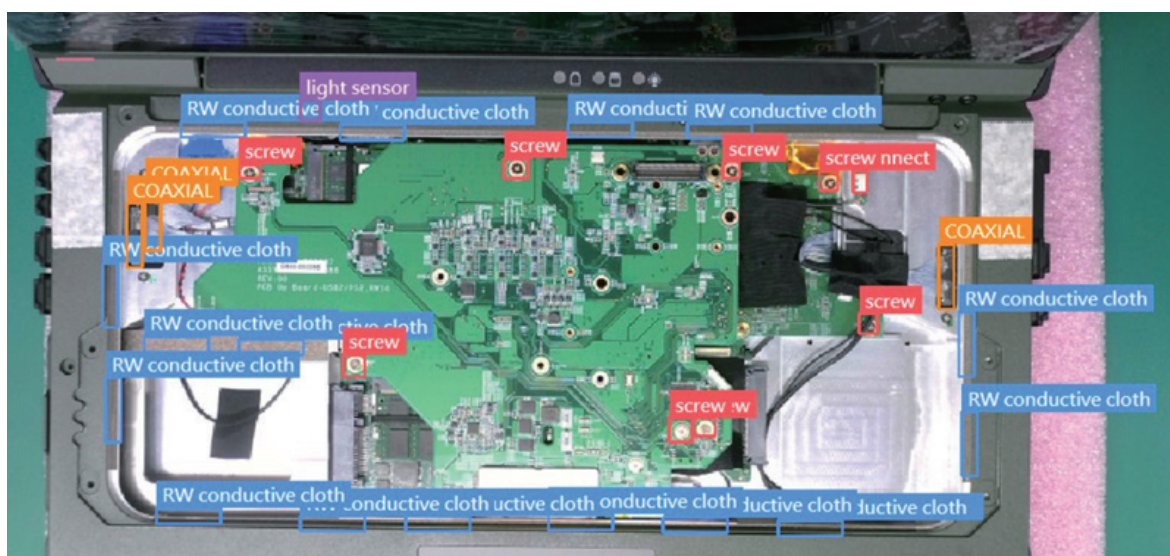
By Denis

In recent years, AI vision recognition technology has advanced rapidly, evolving from image classification to object detection, image segmentation, and anomaly detection. With AI models and tools developing at a fast pace, recognition capabilities continue to improve. In addition to evaluating the practical benefits of existing technologies, the Manufacturing Division will continue to monitor developments in AI technology and new tools, and evaluate more suitable solutions when appropriate.

Traditionally, inspection on assembly lines has relied mainly on manual visual inspection. However, inspection results can be affected by differences in experience, concentration, fatigue, and judgment criteria, potentially leading to missed defects and inconsistent results. In comparison, AI vision inspection can continuously apply consistent inspection criteria based on predefined models without being affected by fatigue. It can also retain inspection results and image records, providing clear advantages in stability, consistency, and data management.

The Manufacturing Division has completed initial validation, focusing primarily on missing component detection. Following image collection, model training, and practical testing, the AI system has achieved a reliable confidence level in detecting missing components. These initial results demonstrate the practical feasibility of applying AI vision inspection to product inspection and provide a foundation for broader applications in the future.

Building on these results, we will gradually expand the range of inspection items and defect types while continuing to improve accuracy. AI vision inspection will progressively expand from missing component detection to assembly accuracy inspection and integration with order information, further improving overall product quality and production efficiency.



Telling the Product Story Through Visuals

By PM Rachel

A great product requires not only excellent quality, innovative design, and reliable performance, but also effective marketing to ensure that its value is recognized by the market. In today's fast-moving digital world, the way consumers discover and learn about products has changed significantly. Capturing attention quickly and clearly communicating product features has therefore become an important part of marketing.

Effective marketing goes beyond written descriptions. Visual presentation plays an important role in creating a strong first impression. Professional commercial photography can showcase a product's appearance, details, and quality, helping customers understand its features more intuitively. Short-form videos can go a step further by combining visuals, real-life scenarios, and dynamic demonstrations to explain product functions, operation, and applications within a short period of time. This allows a product not only to "be seen," but also to "be understood."

In recent years, with the rapid growth of social media, video platforms, and digital marketing, we have also begun expanding our use of product photography and short-form video content. Through more comprehensive visual materials, we can turn product advantages into content that is easy to understand and share, increasing product exposure.

As digital technology continues to reshape the way companies communicate with the market, a good product is the foundation, while effective marketing serves as an important bridge connecting the product with the market. Going forward, we will continue to strengthen the use of digital content and present our products in better ways so that they can be seen by more people.

You are welcome to watch MilDef Crete's first product introduction video at the link below:

<https://www.youtube.com/watch?v=UucmbcxN2qE>





COMPANY INTRODUCTION

MilDef Crete was founded at 1990, we fulfill ISO 9001 and ISO14001. MilDef Crete focus on rugged computer market. We have complete product line including rugged laptop, tablet, mobile device and these products could be use in fields including military, public safety, public utility, on-site service, petroleum and natural gas, telecommunications, transportation, manufacturing, mobile commerce, etc.

MilDef Crete's products sold to the whole world by the brand MilDef. We have transnational team and several sites at Euro, North America and Australia. We provide our customer quicker and better service by co-work with our distributors and dealers. We keep focus on innovation and product development to provide best products for professional usage. We also have best R&D team for any customized demand. Our products pass various standards including MIL-STD-810 and International Protection Marking (IP54, IP65, IP67) and could fulfill special request such like MIL-STD-461, ANSI or ATEX directive.

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