

TMTS 2024

Siemens Taiwan



加速數位轉型邁向工具機永續未來

Accelerate digital transformation for a sustainable tomorrow

Wall 01 - Run MyVirtual Machine

Job preparation with Digital twin solution

Run MyVirtual Machine

Risk-free and safe machining simulation environment

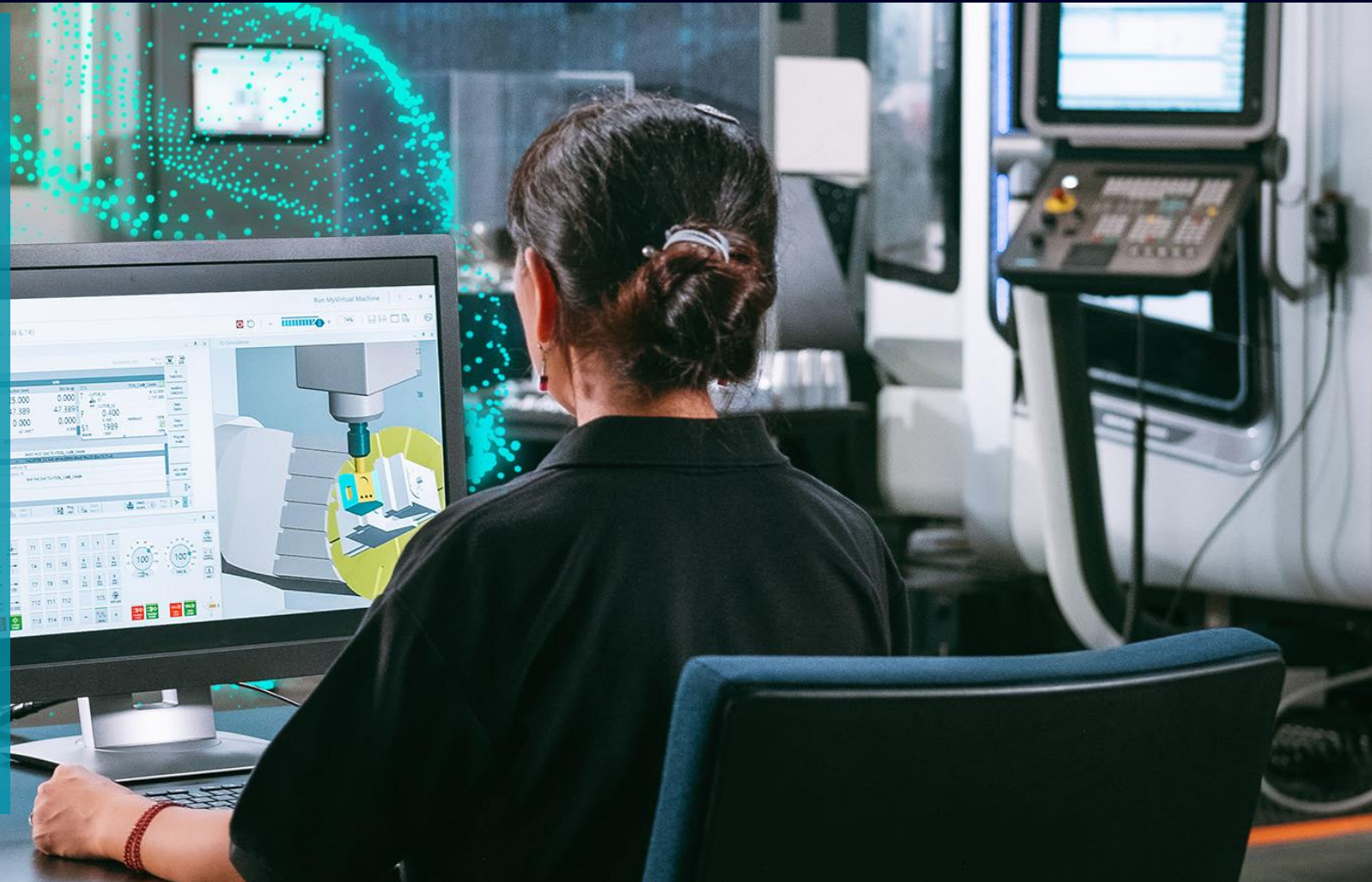
- ✓ NC program offline edit & test
- ✓ Pre-evaluate cycle times
- ✓ Offline collision detection and avoidance
- ✓ CAD/CAM program verification
- ✓ Unified platform for education, training, processing and verification

Enhanced machine support service

- ✓ Reproduce machine problem in RMVM
- ✓ Evaluate and improve machine function settings based on customer needs

Support Multi-function machining application

- ✓ Machine Tools and Run MyRobot Handling Integration
- ✓ 3 Axes / 5 Axes vertical machining center
- ✓ Turn-mill machine with B-axis head and Application



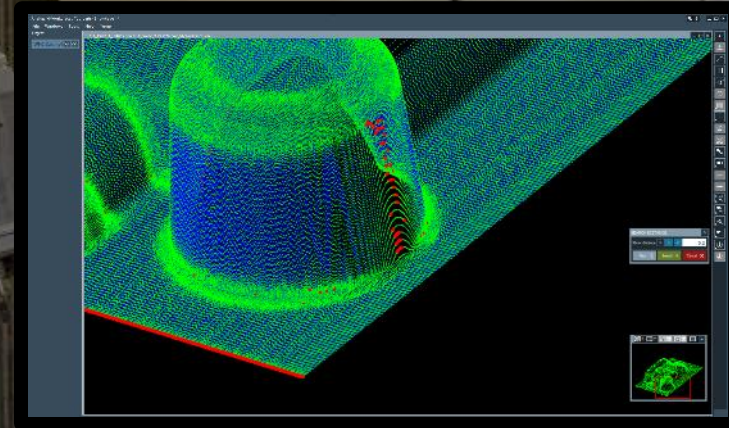
Wall 02 - Analyze MyWorkpiece /Toolpath

Machining quality with analytical solutions

Analyze MyWorkpiece /Toolpath

Increase workpiece quality and production efficiency

- Mold & die program path analysis
- Supports 5-axes workpiece analysis
- Supports CAD STL, G Code, Trace files, Edge HF data
- Supports multi-image synchronization and model overlay analysis
- Supports workpiece 3D surface generation function
- Support data points measurement function
- Support HEAT MAP color rendering function



Wall 03 - ACM Suite

Optimal and stable machining with AI adaptive control

Adaptive Control and Monitoring Suite

Adaptive Control for fully automated machining speed

- Cutting load monitoring
- Reduce energy consumption
- Improve tool cutting efficiency
- Extend tool life
- Protect tool breakage during overload
- Tool damage detection
- Tool abnormal cutting detection



Wall 04 - Analyze MyWorkpiece /Capture4Analysis

AI-driven high-frequency data extraction and analysis technology

Analyze MyWorkpiece /Capture4Analysis

Edge solutions for high-frequency data utilization in machine tools

- Up to 100 sets of high-frequency variable data
- Up to 1ms data sampling frequency
- Supports high-frequency data local storage
- Supports MQTT data transfer protocol
- **Information security**
 - Global: IEC62443-1
 - Global: ISO27001
 - Automotive: TISAX;
 - VW CVA (DCSO certified)
 - China: MLPS
 - Cloud: CSA



Innovation digital service for remote maintenance

Manage MyMachines/ Remote

Seamless solution for remote services

- Files sharing function
- Remote CNC desktop screen sharing
- Support PLC remote editing
- Service Record Dashboard
- Communication, information security and encrypted
- Support smart phone camera

Information security

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Connect machines and Boost Productivity

Manage MyMachines & Analyze MyPerformance

MMM : Increase transparency, availability and productivity for machine tools

- Status Dashboard - Keep track of production progress
- Alarm Logging Dashboard - Provides efficient troubleshooting
- Signal & Status Record - Proactive Exception Notification
- Variable and signal monitoring function

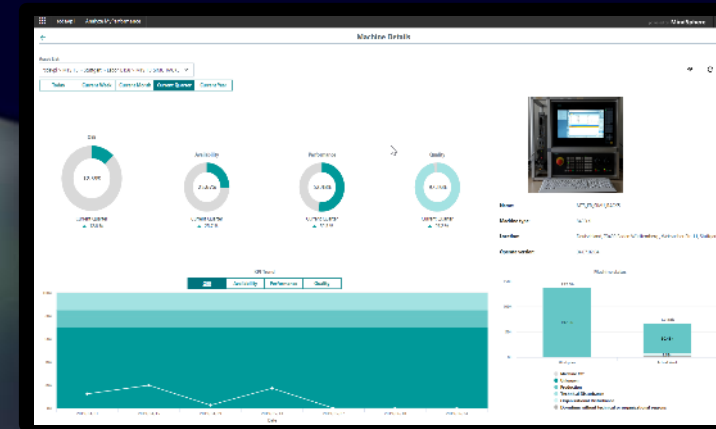
AMP: Creating Transparency of the utilization and performance

- Machine OEE dashboard
- Machine production progress diagram
- Record of machine production status
- Customize shift production schedules

Information security

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- China: MLPS
- Global: ISO27001
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Aiming for Security Level 2



Accelerate digital transformation for a sustainable tomorrow

Sustainability for Industry

Energy Efficient Hardware

- High-efficiency servo and spindle motors reduce energy consumption
- The 400V high-efficiency drive system improves energy efficiency

Operational Technology

- Innovate CNC technology provides maximum efficiency
- Adaptive control increases machining cutting speed
- User-friendly and intelligent interface reduces machine operating errors
- Digital service, reduce personnel travel, and accelerate response time

Digitalization

- Design: Optimizes the design and reduces the cost of over-design and testing
- Realization: Energy management system identifies energy consumption hotspots for improvement
- Optimization: Digitalization to improve efficiency and reduce energy consumption



SINUMERIK 828D PPU.5

Compact Revolution: Flexibility enhanced, digitally transformed

SINUMERIK 828D PPU 27X.5

828D Gen.5 Hardware

- Innovative 12"1 modern-designed panel in addition
- MCP USB 3rd Gen. with mechanical keys
- Newly advanced and compensation technologies
- Support digital twin RMVM(V5.24)
- Newly Ctrl-E Advanced Analysis feature(V5.24)

Flexibility:

- Extend automation application by function Handling Channel
- Enables the connection with external devices such as HT10 or Edge devices
- Max. supportable 18 axes in turning
- Max. supportable 16 axes in milling



SINUMERIK 828D PU272.5

More flexibility in the compact class

SINUMERIK 828D PPU 27X.5

Openness

- Customized HMI using Create MyHMI /3GL and the Windows-based IPC

Extensibility

- Support 3rd-party IPC & screen
- Flexible mounting possibilities, e.g. ITC screen 19", 22"

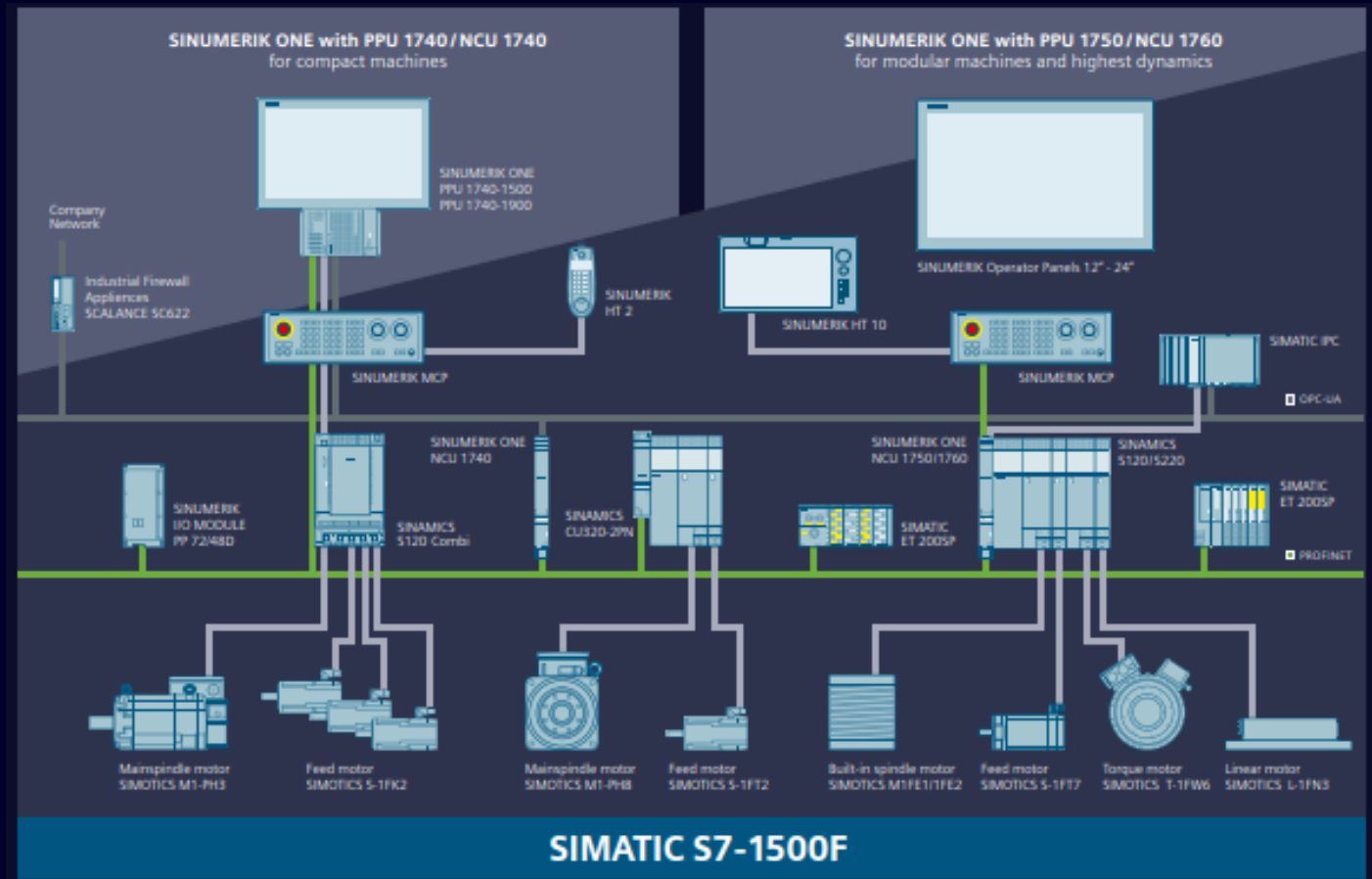
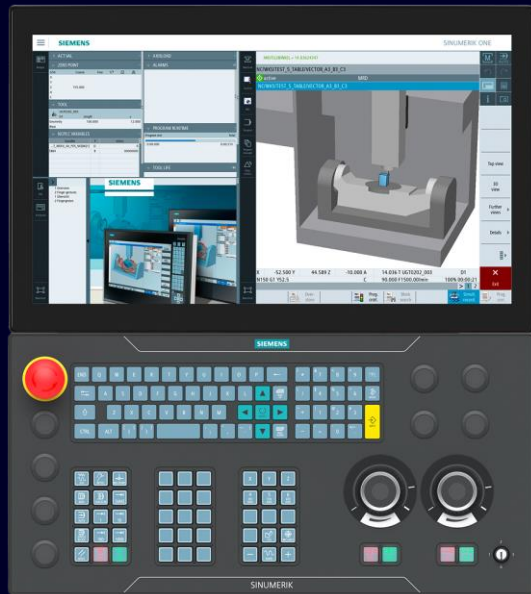
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SINUMERIK ONE

The new standard for high-end machines



More Possibilities with Sinumerik Machine Tools

Digital Enterprise Experience Center(DEX)

- Machine Tools digital manufacturing experience center Taichung, demonstrate the digital solution in real

Robotics

- Run MyRobot: direct control of a robot arm by the SINUMERIK CNC for loading and unloading a machine tool

SITRAIN Training

- Training for Industry – provides you with comprehensive support in solving your tasks. Training directly from the manufacturer enables you to make correct decisions with confidence.

SCE (Siemens Automation Cooperates with Education)

- SCE provides educators with a comprehensive offering to convey industry 4.0/automation knowledge for academia and in-house vocational training, Siemens Taiwan is cooperating with several Universities and Vocational schools.

Digital Customer Service

- Industrial Services provides restorative, preventive, predictive, and complete digital industrial services for the entire lifecycle of products, machines, and plants

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