

# **KEY HIGHLIGHTS**

# Build a Firm and Unchallenged System From an Optimised Bottom Line to Your Manufacturing Future

Cerexio MES creates a bridge between your business plans, logistics, supply chain, manufacturing operations and dynamic process control systems using world-class integration, robustness and speed. Familiarise yourself with the key highlights of your favourite MES counterpart.



### ASSURANCE OF NET-ZERO EMISSIONS

Cerexio MES is the first MES solution to enable outstanding carbon emission profile updates for manufacturers looking from a greener perspective. It brings down your greenhouse gas levels to agreeable states with AI.



#### DYNAMIC MULTIPLE EVENT-DRIVEN PROCESS ANALYSIS

Using cross-process analysis to investigate and track the influence of each inefficiency and represent correlations in a single, smart dashboard by combining seamless data sources into a single production environment.



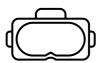
# ONE SYSTEM MULTIPLE SOLUTION

With premium integration, Cerexio MES acts as a core intelligence point to corelated manufacturing process standards with your company's business processes and logistics under a single glass pane.



### BETTER YIELD, FEWER RISKS

With the smart digital technologies enabled by Cerexio MES, your manufacturing facilities can meet ISO standards with net-zero human intervention by improving yield, quality and performance in one go.



# INDUSTRIAL METAVERSE TRANSITIONS

Are you ready to meet the future of the industrial metaverse by infusing immersive technology into your manufacturing efforts? Cerexio MES promotes immersive engagement across your factory floor, business plans and logistics.



# TALENT-ORIENTED LABOUR UTILISATION

Get maximum use of labour by putting a stop to labour exhaustion and fatigue while increasing retention rates by giving them their own technology counterparts.

# **CEREXIO MES MODULES**

# Meet the Future of Planning and Executing Factory Floor Jobs on a Virtual Platform

Cerexio MES specialises in helping forward-thinking manufacturers accommodate futureproof MES modules that ease the transitions from existing manufacturing practices to modern manufacturing standards. Here are some of the main Cerexio MES features you cannot afford to miss.

#### 5G-driven System Modules



The 5G connectivity modules in Cerexio MES support the latest lloT devices instrumented on your factory floors. These modules are optimised with Cerexio Axon Message Broker to simultaneously accelerate and broaden functions and improve manufacturing processes.

#### AGV, AMR Fleet Manager



Cerexio MES' Fleet Manager System is spot on! It can be activated on all warehouse and factory floors and can integrate 1000s of vehicles/robots through its automated fleet controller, giving you ultimate control over all fleets.

#### **Automated Quality Controllers**



The inbuilt Quality Control Management module can be utilised to manage all your quality assurance tests on your factory floor. It consists of tools for audit management, data integrity, change controller, NCM management and more.

#### **IIoT Connectivity**



Allows two-way communication modules between machines and systems. It is configured depending on the factory's network requirement; hence, it can optimise all devices into a centralised/fragmented server depending on your unique IoT deployment.

# CEREXIO MES MODULES

#### Immersive Operation Enabler



This module allows AR and VR convenience across your factory for better collaboration and control. The Immersive Operation Enabler incorporates the Digital Twin Module to enhance the digital twin experience of your manufacturers.

#### Intelligent Scheduling Tool



This is an AI-based module that adds intelligence to scheduling and adjusts the scheduling and labour utilisation to the optimum level. Thus allowing your factory managers to assign work based on worker potential to avoid labour fatigue.

#### Net Zero Emission Assurer



This tool allows carbon emission moderation and controlled energy exhaustion via AI technology, directly affecting your compliance with environmental standards, which is a major challenge for the manufacturing industry in Singapore.

#### New-age Data Technology



This module focuses on cleansing the manufacturing data to predetermined standards and future usage and migrating cleansed data to the relevant databases and services with less traffic and resilience to data security threats.

#### One-to-all Machine Maintenance



With Al-driven IIoT asset control profiles, you can use this tool to predict, prescribe and prevent all machine failures and optimise the uptime of the individual machines or fleets with smart and integrated asset management suites.

# **CEREXIO MES MODULES**

#### **Smart Tracker and Tracer**



By employing this tool, manufacturers can improve the traceability of each part of manufacturing processes in real time. The Supply Chain Process Serial Control is one of the essential features of this module; it promotes unique tracing capabilities.

#### The Message Broker of The Digital Age



Multi-Protocol Message Broker deployed in this solution is a proprietary Cerexio technology. It is infused with Cerexio MES to broker all messages among devices and systems in real-time despite the degree of throughput in your manufacturing space.

#### Digital Twin Ecosystem



The 3D digital twin of the factory is an irreplaceable technology capability Cerexio MES offers. It enables configurable interfaces to showcase the values, real-world scenarios and risk mitigation simulations to guide users in making success-guaranteed decisions.



EXECUTION SYSTEM FOR INDUSTRY 4.0
MANUFACTURING SPECIALISTS, FOR IT ACTS
AS A COALITION OF ERP, MES AND OTHER
DIGITAL CAPABILITIES INTO ONE USERFRIENDLY SUITE.

# BENEFITS

# Let's Go Greener and Leaner in Your Smart Manufacturing Efforts with Cerexio

With unguided root cause analysis, a coalition between multiple systems and transparent manufacturing process optimisation, Cerexio MES is at the leading edge of pushing manufacturers towards success. Here are some main benefits of adopting Cerexio MES to your manufacturing ecosystems.



# AN ERP-FRIENDLY MES SOLUTION

Cerexio MES supercharges changes in demand by relating to ERP -based production plans. This responsive technology allows your manufacturers to control production volumes to align with business and market concerns by forecasting expectations and controlling operations by working hand-in-hand with your existing ERP.



### A SWIFT TRANSITION TO THE INDUSTRIAL METAVERSE

Cerexio MES combines virtual and augmented reality to alter how your company manufactures and interacts with items. It unites the industrial metaverse's building blocks, including IIoT, Extended Reality, digital twin, AI, 5G connectivity and a range of other digital capabilities to bring robust, secure, and fastest user experiences possible in the industrial virtual world.



# CLOUD-DRIVEN ENVIRONMENT SETUP

Cerexio offers premium PLC and instrumentation services for their clients on-prem or through the cloud. We set up the cloud servers (such as AWS) for the factory's digital transformation requirement and help your employees harness the fullest potential of Cerexio MES without disrupting your streamlining processes.



# PREMIUM QUALITY CONTROL MEASURES

Cerexio MES offers the sleekest Quality Management System for modern manufacturers to prosper in the virtual culture by digitising quality events for accurate quality assurance. It is an innovative and highly integrative QA tool to manage all your quality assurance tests on your factory floor by utilising a one-to-all powerful platform with full-scale integrations.

# BENEFITS



# MINIMISE CARBON EMISSIONS AND ENERGY COST

Cerexio MES is the first MES solution in Singapore to address the net-zero emission issue across factory floors by addressing outrageous greenhouse gas emissions with a battle-tested net-zero emission controller for manufacturing players in the industrial world. This technology will help your company meet net-zero emission levels with less exhaustion of human effort, time, and investments.



#### USER-FRIENDLY HMI INTERFACES

The client-oriented HMI Interfaces are another main user benefit. The HMI interfaces for Television, HMI devices, Mobile Gadgets, and other HMI devices with appropriate API integrations allow users to employ this solution in a usercentric manner. It's easier, faster, intuitive and fun to use during operation.



# A ROBOT-FRIENDLY FUTURE

The digital twin model of the warehouse can be connected with palletising robots and autonomous vehicles of your industrial facility, making your journey to employing mechanical labour easier, more efficient and risk-free. Cerexio MES unlocks the best levels of insights and productivity by optimising robot automation across your industrial premises.



# FULL-SCALE PRODUCT PROFILES

Cerexio MES allows users to use an Albased Product Information Manager, that delivers comprehensive, scalable insights on products using real-time information from multiple sources. Al models understand the links between distinct product data points and identify relationships. Utilising this data will enable comparisons, result prediction, and the generation of new data. These straightforward building blocks could be stacked on top of one another to create potent Al pipelines that can streamline work orders.

### **INDUSTRIES**

We help Singaporean manufacturers achieve multi-Dimensional Goals (product optimisation, profit accruals, labour utilisation, emission moderation, etc.) in each department from the plant floor to the executive office. This solution can be implemented to optimise the MES functions in 50+ industries, including:

- Aerospace
- Beverage
- Cement
- Chemical
- Consumer Packaged Goods

- Food
- Forest Products
- Glass
- Medical & Pharma
- Steel

# CLIENT STORIES

A company that manufactures and fabricates precision parts, moulds, and dies.



Vertically-integrated manufacturing services since 1978. They had a challenge in digitally transforming factories to improve operational efficiencies and reduce labour costs.

CEREXIO MES improved the throughput by digitally transforming their factory of 200+ moulding machines while the same labour capacity was able to deliver a +10% profit

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Cement Manufacturer



According to Forbes, this company was on the list of the 700 largest global public companies in 2015. They had challenges in achieving kiln stability and optimisation.

CEREXIO MES was utilised by them to prevent poor quality, suboptimal throughput, unhealthy emission rates and energy losses by predicting failures in cyclone infrastructure.

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ARTC- Advanced Remanufacturing Technology Centre



A Singaporean government agency that researches to facilitate the advanced manufacturing ecosystem in the region.

CEREXIO MES Services and Modules optimised their hyper-personalisation Line- a solution that manufactures personalised products in a fully automated production line.

# CONTACT US

# Don't Hesitate to Get in Touch With Us for Further Clarification or to Book a Demo This Week. The Contact Particulars of Our Company Are as Below:

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