

Partner Product

EBG 252-EN



EPLAN Platform

EPLAN Electric P8 – PLC & BUS Extension

Parallel engineering system which provides consistent implementation of functional engineering



eFactory
Partner Product

IMPROVED
PERFORMANCE 

Increased project quality and data consistency

INTELLIGENT
DESIGN 

Reduced system design time enables faster time to market

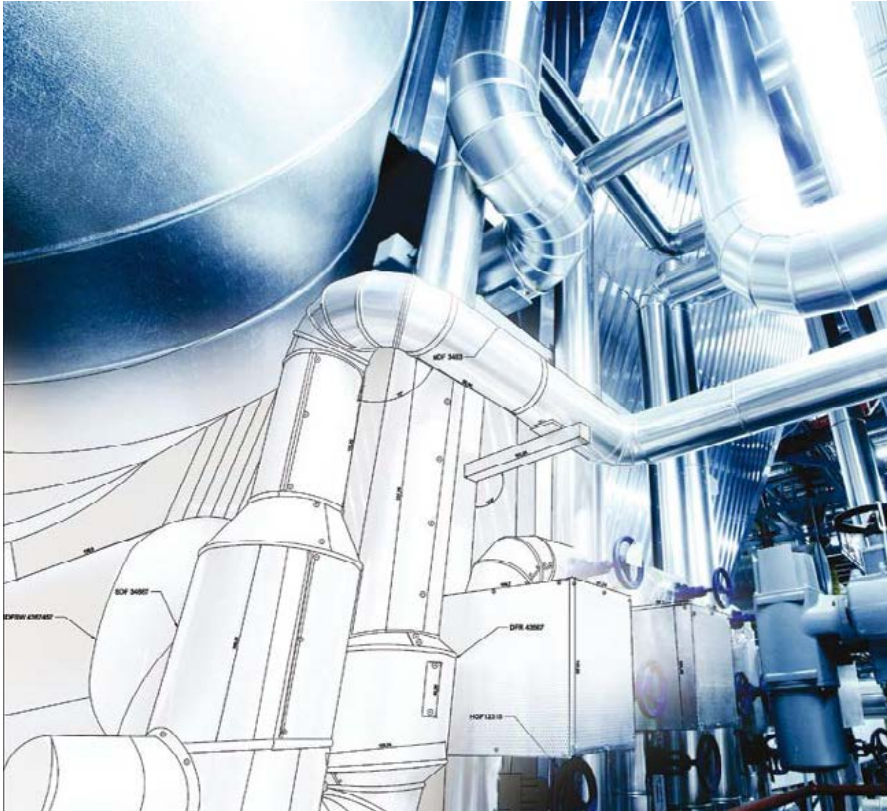
SIMPLER
OPERATION 

One-stop access to tested and certified device data

COMPLETE 

Integrated design tools simplifies functional engineering

Process orientated design engineering solutions



Reduce system development times



Wiring data can be pulled directly from a wide range of Mitsubishi devices

System design challenges

As customer requirements grow ever more demanding, and plant and machinery becomes more complex, machine builders and systems integrators face the challenge of developing and delivering machines and systems with vastly increased levels of sophistication in shorter time periods.

Across a wide range of industries, whether automotive, food and beverage, machine tool engineering, oil and gas, panel building, power engineering, railway systems, metals processing, water and wastewater treatment, and others, the challenges of system design will be all too familiar. The key to maximising opportunities and to delivering superior systems on schedule and on budget lies in closing the gap between the initial concepts through to programming and acceptance testing.

This engineering process starts with initial rough drafts and ideas for the design. This encompasses preplanning and basic engineering phases in which the concepts for the technical machinery or plant design are developed, and initial volumes of project data estimated. The aim is to determine the most technically apt design and to define the guidelines for subsequent detail engineering.

Ideas are gradually refined and made more specific until the concept design is approved and all the documents and information required for the production or construction of the machine or system are in place.

Faster time to market

Going the step from basic to detail engineering one task is to integrate PLC software and hardware design into this engineering process. EPLAN's "PLC & BUS Extension" module provides extensive functions for exchanging the project data with PLC design and planning tools.

Now Mitsubishi Electric and e-F@ctory partner EPLAN have addressed this historic shortcoming in the design process. Together, the two companies offer process-oriented engineering solutions that deliver comprehensive workflow solutions from the initial project idea, through development and design, right up to production, providing the right tools to address a range of diverse engineering requirements.

With the EPLAN Platform (PLC & BUS Extension), tight integration between EPLAN and Mitsubishi Electric GX Works2, and the inclusion of electronic data, schematic templates and CAD drawings for Mitsubishi Electric products within the EPLAN data portal, engineers are assured of vastly reduced system development times, and absolute data consistency through all of the development phases.



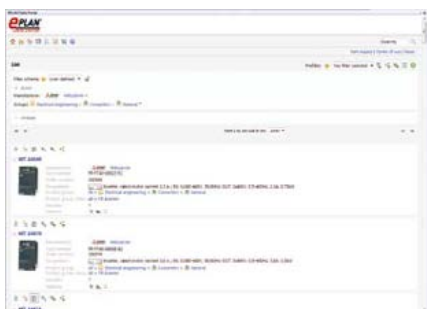
Data consistency from concept to final machine tool

Increase project quality

Engineering tools such as the EPLAN platform have to support the planning and management of PLC and BUS components optimally in order to tap the full rationalization potential of interdisciplinary design processes.

Central to EPLAN Engineering Center is EPLAN Platform, which breaks new ground in the preplanning up to detail engineering phase of a system design. Whether it is graphical overviews, placeholders for functions, initial project data for inverters, sensors, robots and PLC I/O, or parts lists for calculators, comprehensive preplanning tasks can be processed directly in the EPLAN Platform. The subsequent detailed engineering design of the machine or system can then be based on this comprehensive data – without the need for new data entry or transfer from other systems.

As the detail design progresses, the integra-



EPLAN data portal

tion of Mitsubishi Electric macros (libraries) and product CAD data into EPLAN means that users can pull electrical wiring data for most Mitsubishi Electric automation products such as modular PLCs, Robots, LV and Servos directly into their designs. This simplifies and speeds up component selection and configuration within an automation project, and enables more intelligent planning, reduced mounting errors and improved wiring.

Reduced system design time

The inclusion of this data within EPLAN eliminates the need for users to create their own master data, and further removes the need to spend time going through bulky product catalogues. It gives users one-stop access to tested, certified and up-to-date device data.

With the electrical design complete, the integration between GX Works2 and EPLAN, through open interfaces, enables engineers to import all of the data generated within EPLAN directly into GX Works2 where system configuration and programming can then be carried out. Once in GXWorks, developers have the freedom to choose between five different programming languages, in an environment that conforms to IEC 61131-3 standards.

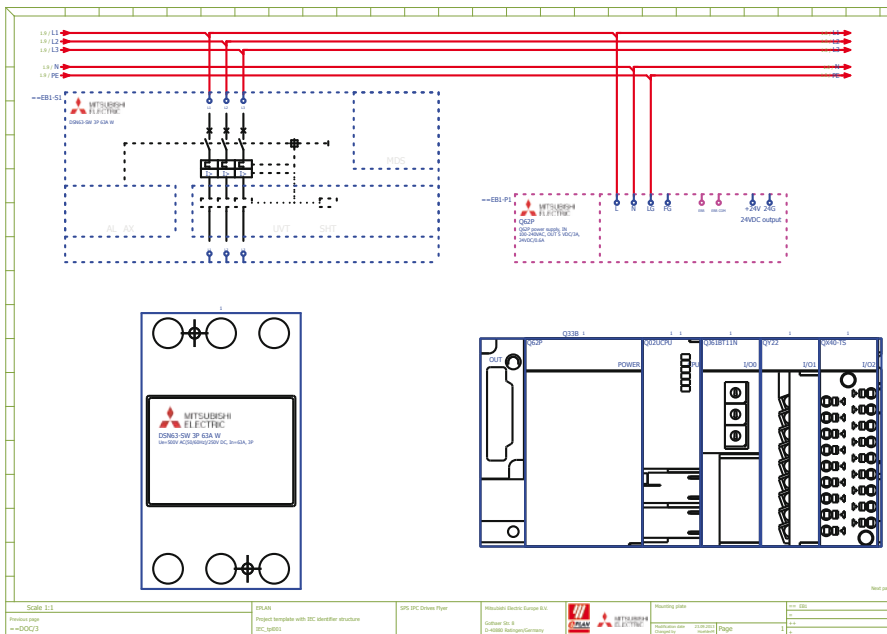
Parts of projects can be saved in libraries for use within future applications, meaning that once a function, function block, program or structure is written, tested and proven, it can be integrated in new systems in minutes. Thus, future designs are simplified.

With the new integrated design tools and capabilities delivered by Mitsubishi Electric GX Works and EPLAN, engineers across all disciplines and at all phases of the design process benefit from the consistent implementation of functional engineering.



Integration between GX Works 2 and EPLAN

Typical Configuration



Benefits:

- Consistent life-time data
- Reduced system development time
- Integrated Mitsubishi Electric macros and CAD data
- Integrated design tools

Control system configuration

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