



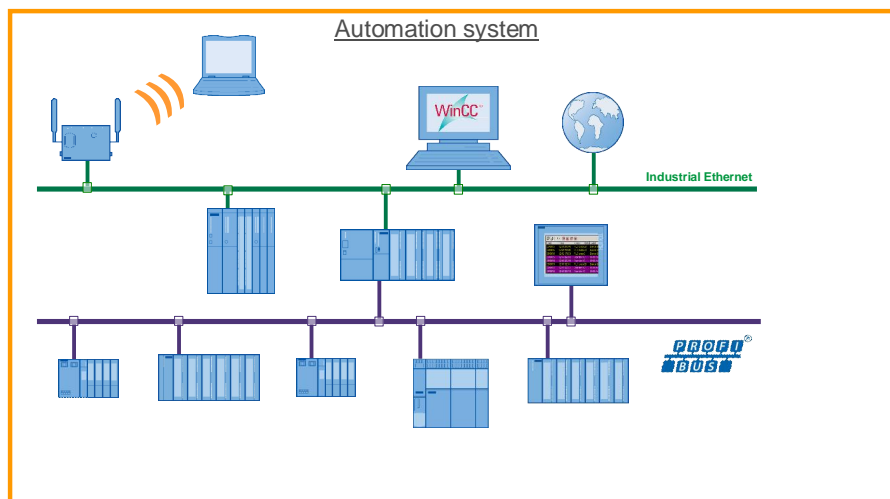
PROFINET
The leading
Industrial
Ethernet
Standard



The Benefits of
PROFINET

Automation Structure

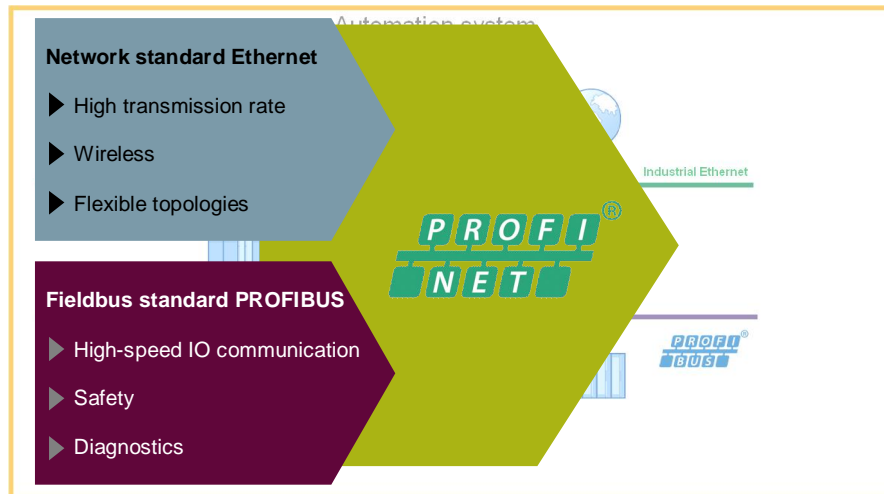
2



PROFINET Marketing - Benefits

Automation Structure

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PROFINET Marketing - Benefits

The answer - PROFINET

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PROFINET is the open Industrial Ethernet standard from PROFIBUS & PROFINET International (PI), Vendor neutral

PROFINET is based on Industrial Ethernet

PROFINET utilizes TCP/IP and IT-Standards

PROFINET is Real-Time Ethernet

PROFINET allows seamless integration of fieldbus systems

PROFINET Marketing - Benefits

Just imagine: a PROFIBUS installation with...

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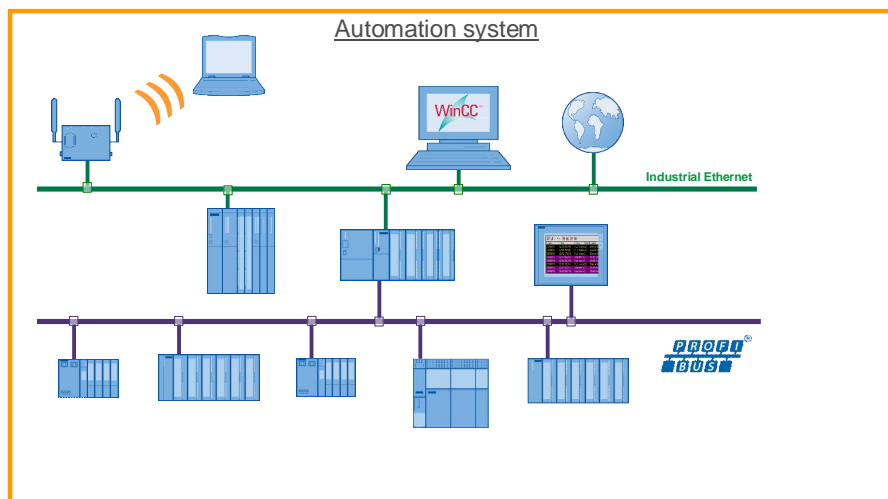
- ▶ ...wireless communication
- ▶ ...fail-safe communication also via wireless connections
- ▶ ...more than one Master in the same bus segment
- ▶ ...web server features
- ▶ ...electrical ring installation
- ▶ ...more than 126 connections/participants on the same bus
- ▶ ...graphic visualization and automatic recognition of the topology
- ▶ ...addressing by name, also automatically possible
- ▶ ...very high transmission rate over large distances, without use of separated Repeaters
- ▶ ...large amount of data (e.g. database, images, file transfer) via the same cable for devices
- ▶ ...easy energy management
- ▶ ...full access, even remotely, to the entire network

How would PROFIBUS solve those requirements of today's applications?

PROFINET Marketing - Benefits

Automation Structure

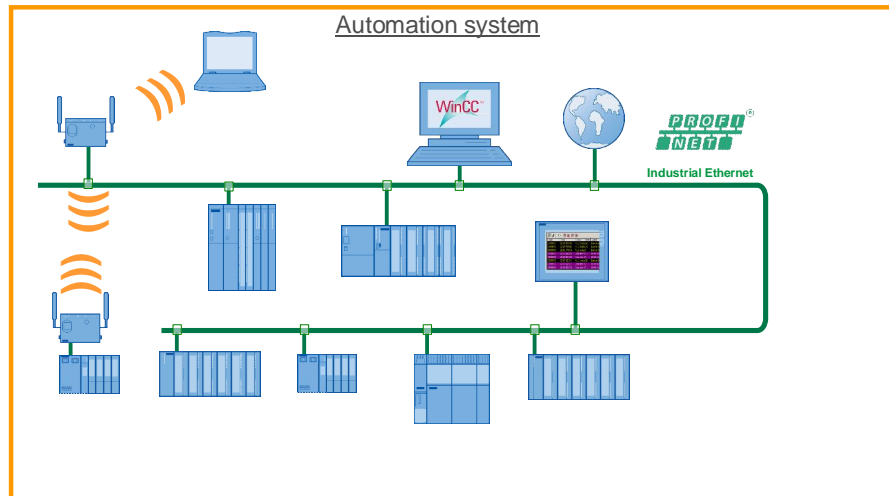
6



PROFINET Marketing - Benefits

Automation Structure

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PROFINET Marketing - Benefits

But if I do that, I need.....

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- An additional switch
- IO-Modules with Industrial Ethernet/PROFINET interface
- PROFINET CPUs
- New methods of Programming

- ...and this is increasing the costs...

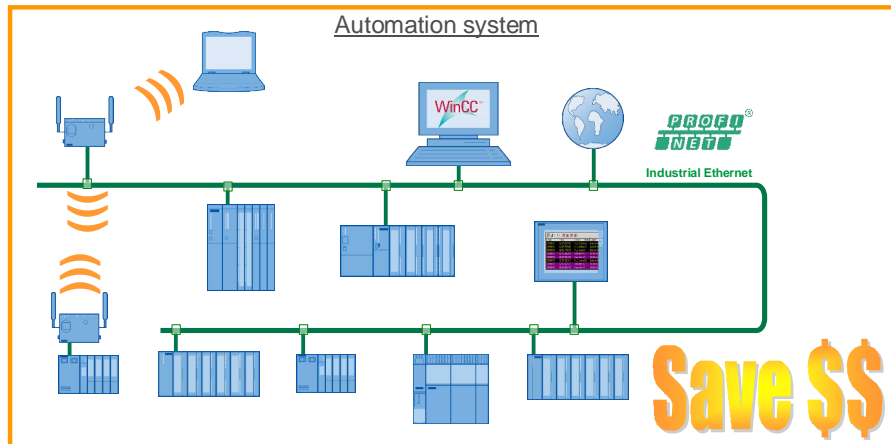
- Wrong!
- A switch in on board of the IO modules!
- IO-Modules with a PROFINET Interface are exactly the same costs as on PROFIBUS and only the head module needs to be changed, the IOs can be kept!
- PROFINET CPUs are used for Industrial Ethernet communication anyways
- The user program can be kept, there is no difference between PROFIBUS and PROFINET IO-Access!
- Even Redundancy is possible directly on the Products, no OLM, no FO!!



PROFINET Marketing - Benefits

Automation Structure

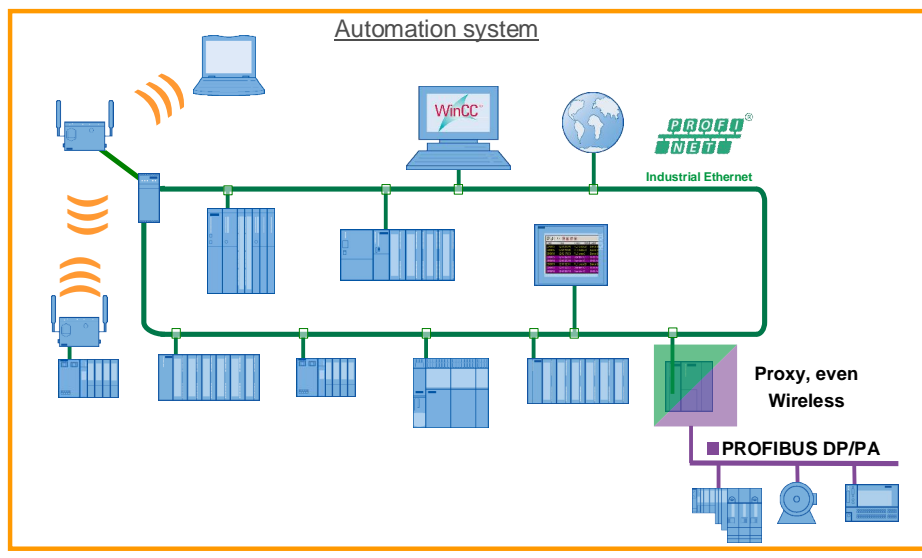
9



The only communication medium is Ethernet.
Reduction of Interfaces – Cabling – Connectors - Spare parts

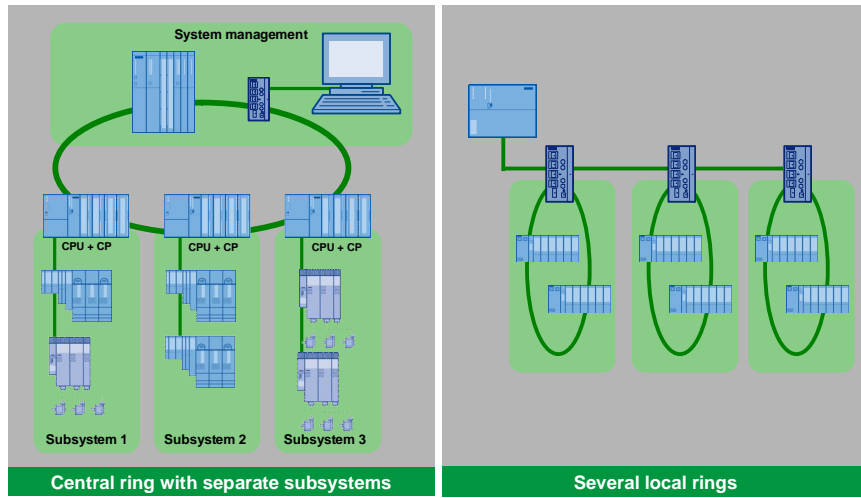
Automation Structure – higher availability with Fieldbus integration

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Even Redundant structures without a switch!

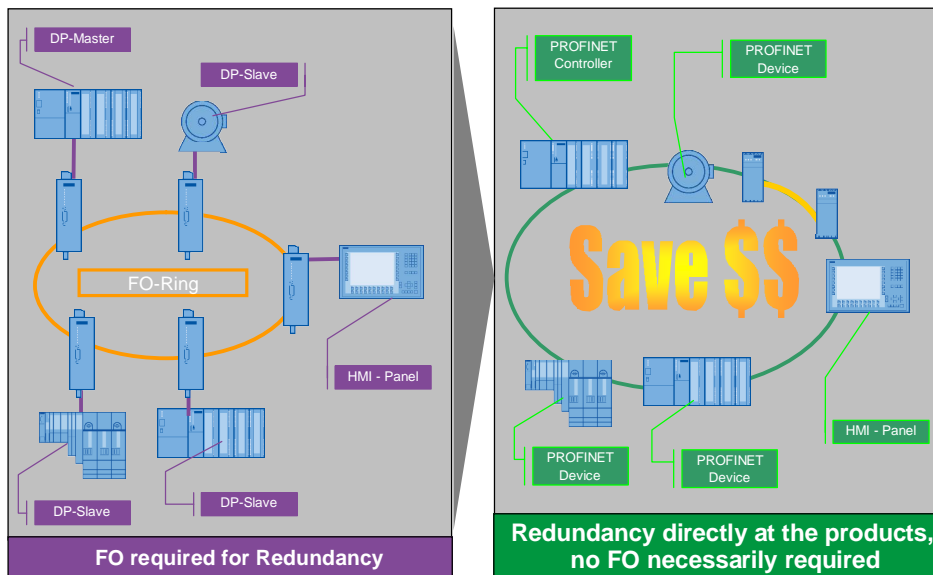
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PROFINET Marketing - Benefits

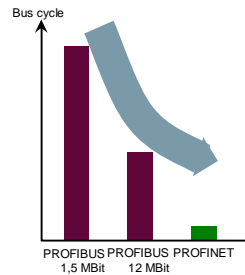
Comparison with PROFIBUS Solution

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System comparison

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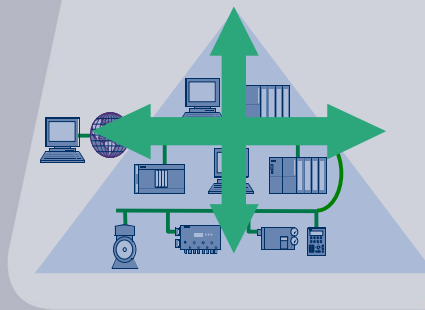
	PROFIBUS	PROFINET
Transmission Speed	12MBit/s	100MBit/s 1000MBit/s Backbone
Cycle time	Min. 300µs	Min. 31,25µs
Number of devices on ONE Controller	125 limited	256 for one controller, multi-controller possible

- Higher performance
- Devices with more IO-Data
- fast Parameterization / Diagnostic
- reduce interfaces and components.
- Higher quantity of devices, no limitation in the device number on a Ethernet network.



PROFINET offers ...

... more continuity (uniform structures)



In communication

PROFINET is Standard Ethernet

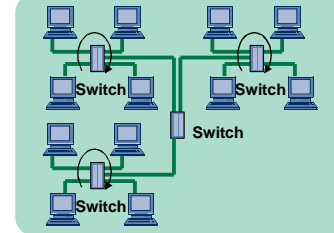
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Introduction
 Uniform structures
 Performance
 Integration
 Innovations
 Enhancement

Switching technology

- Simultaneous sending/receiving
- Parallel communications paths
- Unlimited number of devices
- Ultra short response times
- 1,440 bytes per frame
- Intelligent Network device

Parallel communications



PROFINET – innovative and future-proof

PROFINET Marketing - Benefits

PROFINET used in all Industries

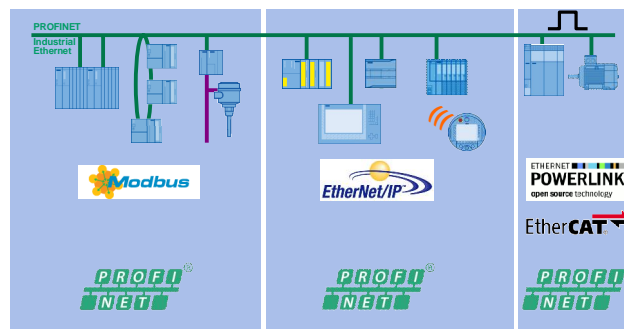
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Introduction
 Uniform structures
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Process Automation

Factory Automation

Drives



100ms ← → 31.25µs

IEEE-Ethernet

TCP/IP

Realtime

IRT

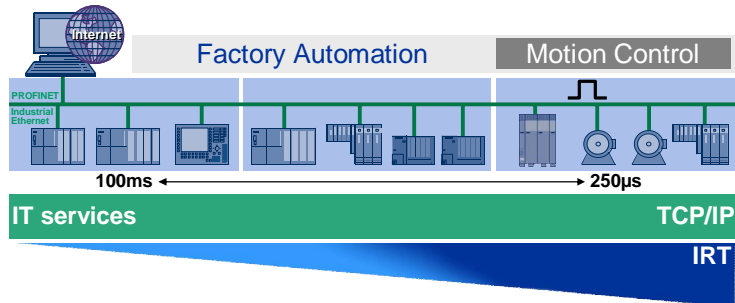
PROFINET Marketing - Benefits

* Mostly found in this industries

PROFINET is Real-time Ethernet

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Introduction
 Uniform structures
 Performance
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 Enhancement



Enables all this...

- ... direct online access to field devices
- ... maintenance and service from anywhere (even remote)
- ... lower costs for production/quality data monitoring

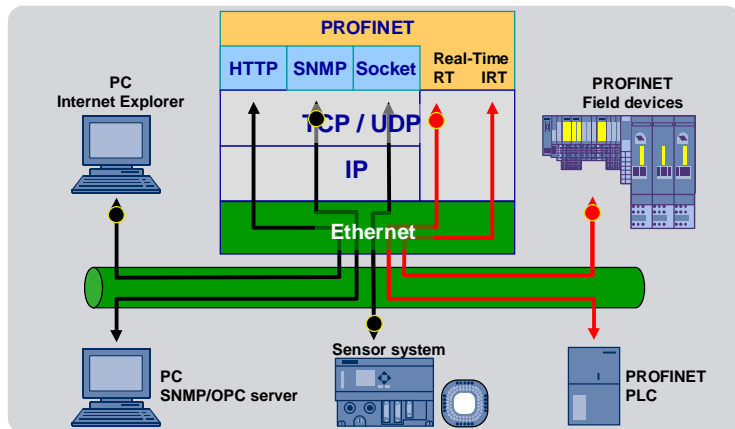
Scalable Real-time for simultaneous, unlimited IT communications

PROFINET Marketing - Benefits

PROFINET communications

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Introduction
 Uniform structures
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 Enhancement



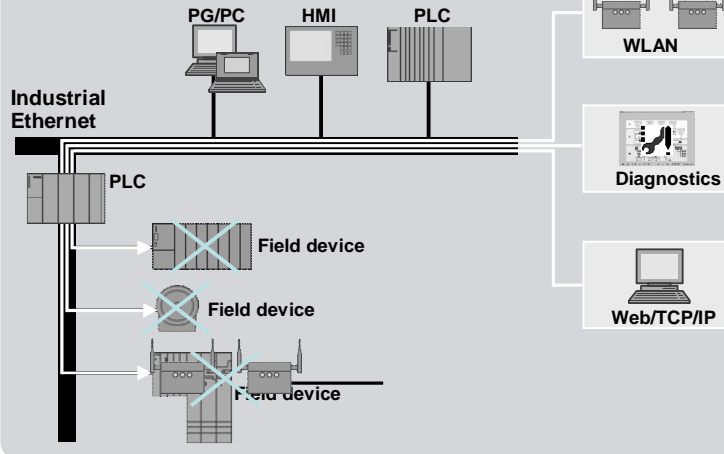
PROFINET features standard TCP/IP communications in compliance with IEEE 802.3 and real-time communications

PROFINET Marketing - Benefits

Field busses

- Introduction
- Uniform structures
- Performance
- Integration
- Innovations
- Enhancement

Conventional automation topologies with fieldbuses such as EtherCAT, Ethernet Powerlink, PROFIBUS, Interbus and other

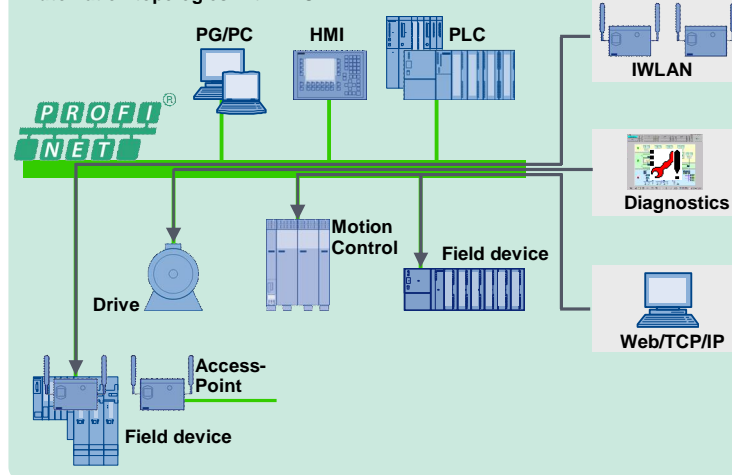


PROFINET Marketing - Benefits

PROFINET – use one bus for all your tasks!

- Introduction
- Uniform structures
- Performance
- Integration
- Innovations
- Enhancement

Automation topologies with PROFINET

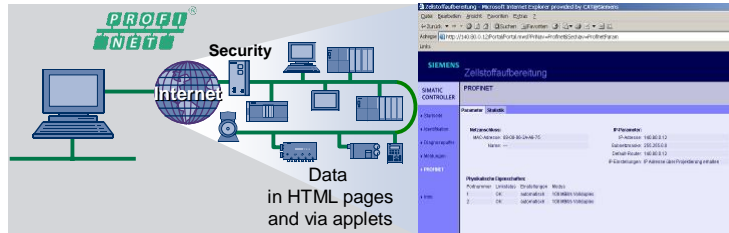


PROFINET Marketing - Benefits

Integrated web functionality for diagnostics and service

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Introduction
 Uniform structures
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 Enhancement



Access to the automation from anywhere in the world

- Via the integrated web server in automation devices
- With a standard Internet browser
- Regardless of your engineering tool
- Easy remote diagnosis and services

Event-driven message dispatched by SMS or e-mail

PROFINET - innovative communications via TCP/IP and the Internet for automation applications, too!

PROFINET Marketing - Benefits

Security with PROFINET

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Introduction
 Uniform structures
 Performance
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 Enhancement

Offers protection from

- Address errors and improper operation
- Unauthorized access
- Manipulation and espionage

Features

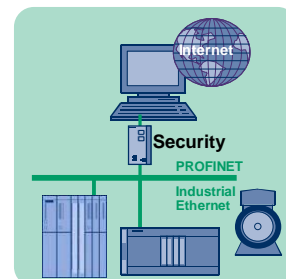
- Scalability and reaction-free installation
- Only basic IT knowledge required
- Proven and certified security standards (firewall, VPN)

Enables

- Use of Ethernet at all levels of automation
- Vertical networking
- Increased use of open IT standards in automation

Boost security and performance in your production processes!

PROFINET Marketing - Benefits



Security strategies

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Introduction
Uniform structures
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Innovations
Enhancement



Great Wall

“Unconquerable” wall
single layer of protection
no more checkpoints behind the wall

→ No single security measure is good enough to prevent intrusions !

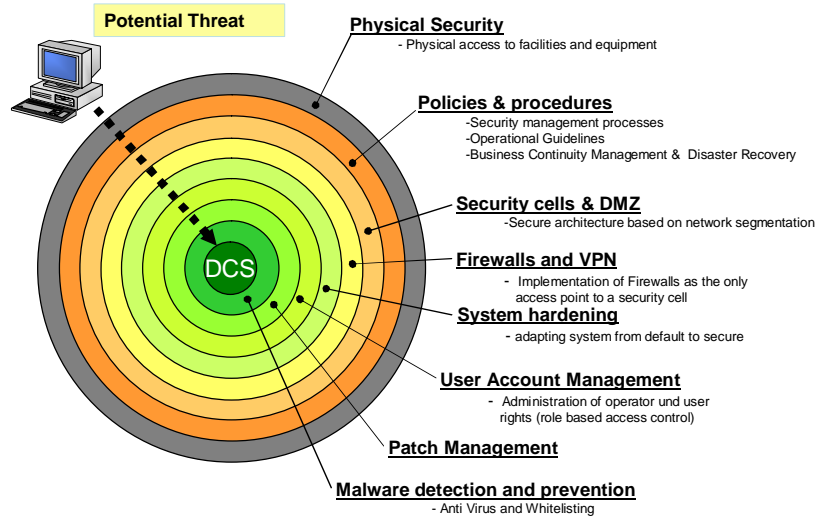
Defense in Depth
multiple layers of protection
each layer supports the other
layers for every transition
between two layers an attacker
must spend time and effort



PROFINET Marketing - Benefits

“Defense in Depth” Creating multiple layers of protection

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‘Defense in Depth’ because you should not rely on just one measure

PROFINET – Flexible network topologies

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Introduction

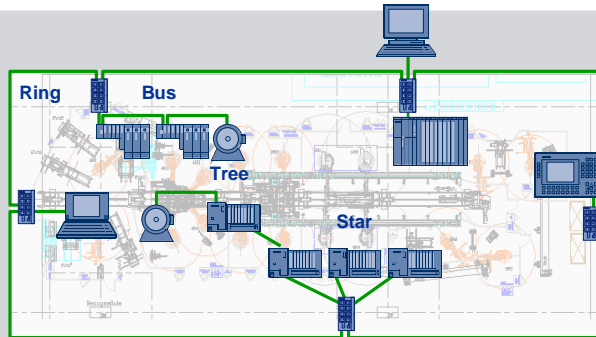
Uniform structures

Performance

Integration

Innovations

Enhancement



Benefits and added value for our customers

- Bus structure through integration of switch ports in devices
- Tree and star topologies for tree'd configurations
- Redundant rings with reconfiguration in real time

Cost reduction and more flexibility

High availability

PROFINET Marketing - Benefits

PROFINET – use one bus for all your tasks!!

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Introduction

Uniform structures

Performance

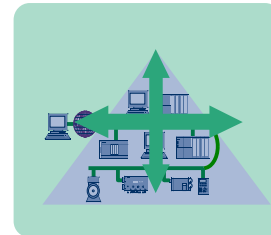
Integration

Innovations

Enhancement

Benefits and added value for customers

- Connect any automation device to any point
- All automation applications run via just one cable; Real-time and TCP/IP
- Standard and failsafe automation via one cable – or even wireless



Summary

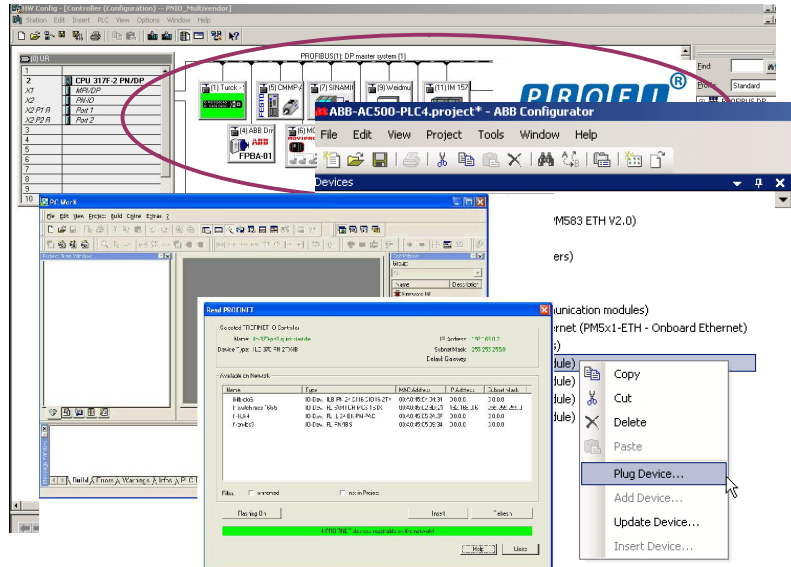
Flexibility and cost reduction for engineering, installation and maintenance

PROFINET Marketing - Benefits

Configuration – like PROFIBUS

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Introduction
Uniform structures
Performance
Integration
Innovations
Enhancement

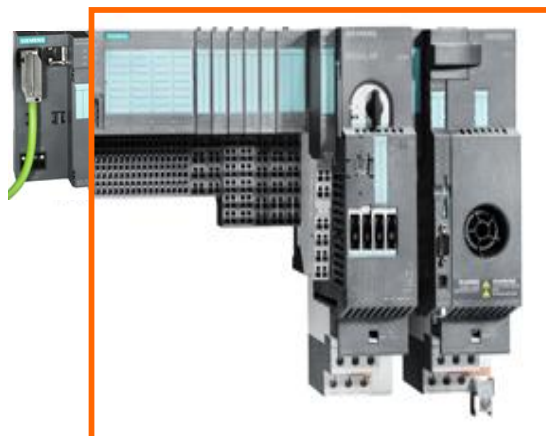


PROFINET Marketing - Benefits

From PROFIBUS to PROFINET

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Introduction
Uniform structures
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Enhancement



Keep all the IOs only the Interface Module needs to be changed!

Thank you for your attention!


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PROFIBUS/PROFINET Association South East Asia
1, Scotts road, #21-07, Shaw Centre
Singapore-228208

E-Mail: southeastasia@profibus.com

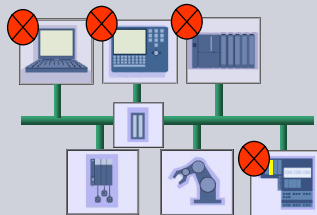
PROFINET Marketing - Benefits

Join us at 



PROFINET offers ...

**... more continuity
(uniform structures)**



For diagnostic

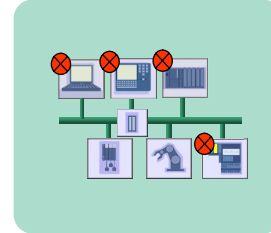
Requirements for diagnostics

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Introduction
Uniform structures
Performance
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Enhancement

You want...

- Access to your data from anywhere
- To localize faults quickly
- Fault messages in plain text and foreign languages
- Comprehensive diagnostics down to the channel, even across gateways
- To use common IT standards
- A graphical overview of the real topology
- Preventative diagnostics and maintenance



Goal: Fast commissioning and increase in plant availability

PROFINET Marketing - Benefits

PROFINET – offers best diagnosis in class

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Introduction
Uniform structures
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Enhancement

Beside

- Proven channel diagnosis known from field busses
- Guaranteed alarm

... usage of standard Ethernet diagnosis

- Established mechanism like SNMP
- Access anywhere

on top

- Easy localization with topology views
- Simple access with web

PROFINET Marketing - Benefits

Simple by integrated naming

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Introduction
 Uniform structures
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Comprehensible names of devices

- well defined names for the addressing are also used for diagnostic information, e. g. „desk-3“

Offline-Engineering

Device name: desk-3

Online-Diagnostics

Status: Error

General | IO Device Diagnostics | Interface

Description: IM151-3PN

Name: desk-3

Web-View

SIMATIC 319F-3PN - PROF

Module information

Symbol Name

desk-3

Consequent support also of the connectors/wiring naming

Offline-Engineering

Slot	M	Order number
0	desk-3	6ES7 151-3BA2
X7	FW-D	
X7	Port 1	
X7	Port 2	

Device-Housing

X1 P2

Online-Diagnostics

Status: Error

General | IO Device Diagnostics | Communication Diagnostics

Communication Diagnostics:

Name	Error
Port 2 [X1 P2]	Wrong partner port

Error prevention
Clear identification of the fault location
Fast repair

PROFINET Marketing - Benefits

Topology view

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Introduction
 Uniform structures
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Engineering view in addition to the actual plant structure

- graphical
- tabular
- offline
- online
- integrated in
 - Engineering
 - Controller

Clear plant overview, documentation
Fast fault location
Fast access to detailed diagnostics

PROFINET Marketing - Benefits

Web

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Presentation of diagnostics and parameter settings

Introduction
Uniform structures
Performance
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Enhancement

The screenshot displays the Siemens WEB Management interface in a Microsoft Internet Explorer browser. The address bar shows the URL <http://192.168.0.207/>. The interface includes a navigation menu on the left with categories like 'Start', 'Identif.', 'Diagn.', 'Modul', 'Mess', 'PROF', 'Topol.', 'Variat.', and 'Introd.'. The main content area shows 'SIMATIC NET' settings for a 'SIMATIC NET Industrial Ethernet Switch SCALANCE X208'. A 'Statistics Packet Size' table is visible, showing data for various ports and packet sizes.

Port	64	65-127	128-255	256-511	512-1023	1024-1638
1	75	16806584	88	8	4	-
2	-	-	-	-	-	-
3	-	-	-	-	-	-
4	-	5518402	30	6	-	-
5	-	5512320	13	4	-	-
6	-	5518048	12	3	-	-
7	153	4887	175	49	13	-
8	3	309	95	878	-	-
All	231	33161168	333	746	17	-

Simple access
Regardless of location, even wireless
No engineering

PROFINET Marketing - Benefits

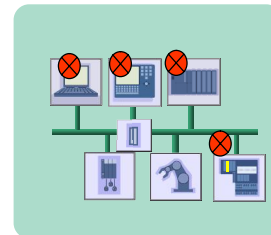
Fast commissioning and high plant availability...

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Introduction
Uniform structures
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Enhancement

Added value for our customers

- Fast engineering
- High plant availability
- Cuts costs of configuration and commissioning
- Diagnostic information worldwide
- Fast localization of faults
- Transparency in the network
- Automatic documentation
- Preventative maintenance
- Data available from anywhere



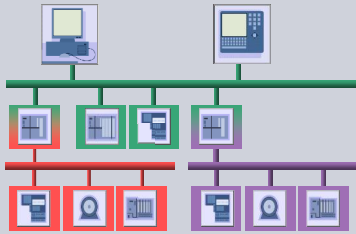
Summary

... Increase of efficiency by fast commissioning and increased plant availability

PROFINET Marketing - Benefits

PROFINET offers ...

... seamless integration of existing systems



Such as components, fieldbuses and networks

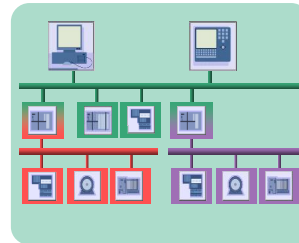
Requirements for setting up PROFINET

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Uniform structures
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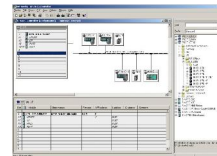
Do you want to...

- # Easily integrate existing fieldbus systems?
- # Integrate existing Ethernet networks?
- # Continue using existing user programs?
- # Continue using existing devices?



And ...

- # Continue using your existing knowledge and tools without a problem?



Minimizes the time and expense of setting up your system with or migrating to PROFINET

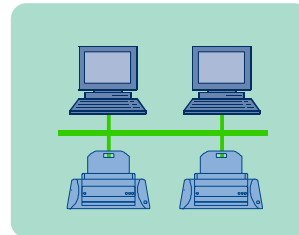
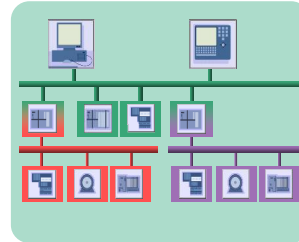
PROFINET Marketing - Benefits

PROFINET has the answer to your requirements

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Introduction
Uniform structures
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Enhancement

- Integration of existing fieldbus systems through proxy technology
- PROFINET is standard Ethernet
- Lets you continue using your user programs
- Makes it easy to convert existing devices
- Engineering – with the same look & feel



PROFINET Marketing - Benefits

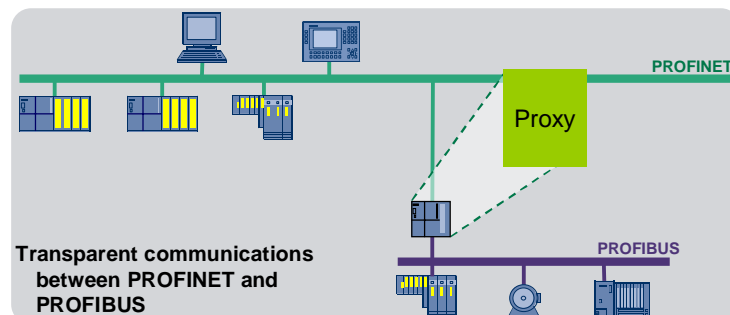
Easy integration of existing fieldbus systems through proxy functionality

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Introduction
Uniform structures
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Benefits and added value for our customers

- Including gateways for PROFIBUS, Interbus, AS-Interface and other fieldbuses
- Including controllers with PROFINET and PROFIBUS interface



Protects your investment

Transparent integration without programming

PROFINET Marketing - Benefits

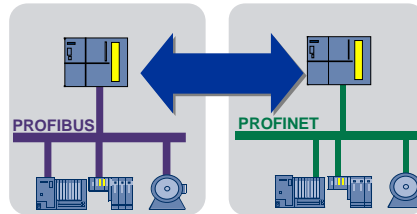
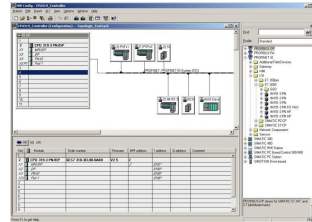
Just continue using your user program with PROFINET ...

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Introduction
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Benefits and added value

- **Just** reconfigure your hardware...
- ... **no** reprogramming work necessary
- use the same exact tools with the same look & feel
- same system design for PROFIBUS and PROFINET



Reduce the time and expense of engineering and testing

PROFINET Marketing - Benefits

Advantages to using PROFINET

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Introduction
Uniform structures
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Protects your investment

- Seamless integration of existing fieldbuses
- Easy conversion of existing devices
- No additional tools or training needed

Saves costs

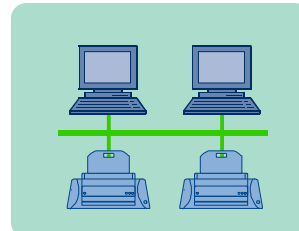
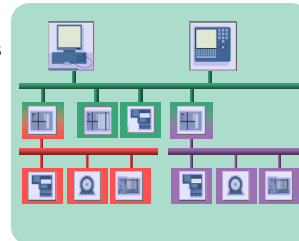
- Uses existing Ethernet networks

Uniformity

- Uniform physical network concept

Saves time

- Reduces engineering and testing time
- Cuts time needed for migration



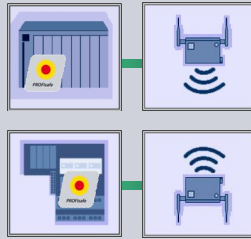
Summary

Minimizes the time and expense of setting up your system with or migrating to PROFINET.

PROFINET Marketing - Benefits

PROFINET offers ...

... new, innovative applications



With wireless automation

Does this sound familiar?

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Introduction
Uniform structures
Performance
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Enhancement

Your constraints...

- Expensive slip rings or slip conductors
- Low flexibility & limited space
- High maintenance costs



Your needs...

- An easy networking solution even for hard-to-reach places
- More space & greater flexibility
- Less maintenance costs



PROFINET Marketing - Benefits

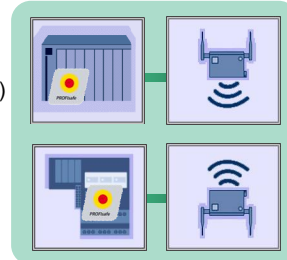
Our responses to your needs

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Introduction
Uniform structures
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PROFINET via WLAN with ...

- Standardized technology
- Easy engineering (planning, set-up, operation, documentation)
- Network security
- Failsafe communications ("Safety Integrated")
- Mobile HMI



- ...as reliable, rugged, safe and secure as hard-wired systems!

PROFINET Marketing - Benefits

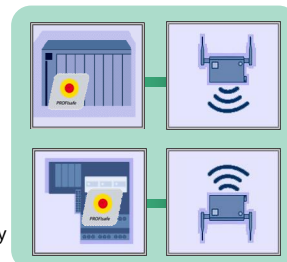
Standardized technology

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Introduction
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PROFINET based on standard Ethernet

- Wireless communications in compliance with IEEE standard possible
- Industrial WLAN (IEEE 802.11)
 - cyclic and acyclic data transmission
 - Supervision of wireless connection
 - Redundant wireless operation over 2 separate wave bands for raised availability
 - PROFI-safe over WLAN
- Bluetooth (IEEE 802.15.2)
 - Coexistence with WLAN
- Fast commissioning
- Easy diagnostics



Using established standards for innovative applications

PROFINET Marketing - Benefits

PROFINET wireless enables...

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Introduction
Uniform structures
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Enhancement

...Higher productivity based on

- Increased plant availability compared to mechanical solutions (e.g. trailing cables)

...Lower costs thanks to

- Less maintenance & installation work
- Use of standard components even for failsafe communications

...Greater flexibility and mobility

- Communications from any location
- Easy expandability and modification
- Independence from mechanical bounds



Summary

...greater flexibility and mobility

PROFINET Marketing - Benefits



PROFINET offers ...

... new, innovative applications



With integrated safety

The integrated safety solution

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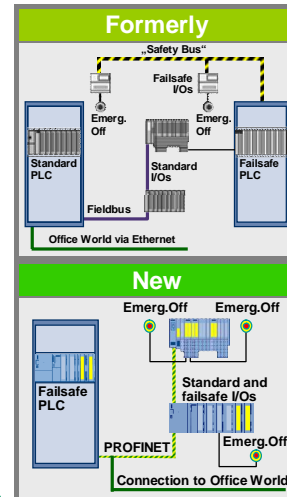
Introduction
Uniform structures
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One bus for standard and failsafe automation

- Meets the highest safety categories
- Safety Integrity Level 3 / PL e / Cat. 4
- Uniform diagnostics and uniform user interface
- Reduce the number of types, parts and interfaces

Save time, space and money with Safety Integrated!

PROFINET Marketing - Benefits



Failsafe communications – even wireless

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Introduction
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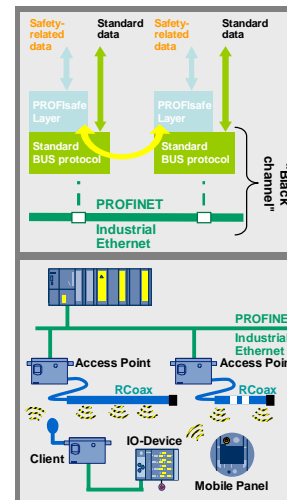
Use of the PROFIsafe profile

- Tested and accepted with PROFINET
- Standard and failsafe communications over the same transmission path
- Can be used for stationary and mobile Emergency Stop function
- Allows the use of extended safety functions by use of dedicated PROFIsafe devices

Even wireless...

Failsafe and available, just like hard-wired!



PROFINET Marketing - Benefits



Safety solutions conforming of standards

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Agenda
Uniform structures
Performance
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Enhancement

- Using PROFI-safe and PROFINET can satisfy all requirements when it comes to ensuring complete safety for humans, equipment, and the environment.
- First communications standard developed in accordance with safety standard IEC 61508
- Developed to IEC 61784-3-3, PROFI-safe is the international standard
- PROFI-safe handles potential faults (e.g. invalid addresses, delays, data loss) by means of
 - Serial numbering
 - Time monitoring
 - Authenticity monitoring
 - Additional CRC backup
- Evaluated by  BGIA and 
- Drive technology also fits in seamlessly here with the integrated safety functions according to IEC 61800-5-2.



PROFINET Marketing - Benefits

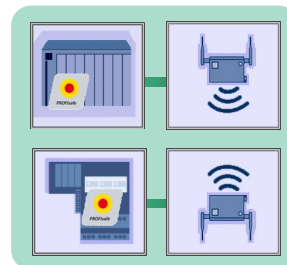
The competition

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Introduction
Uniform structures
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Only with PROFINET...

- Wireless available
- Benchmark for the safety communication in the IEC standards
- Established as open standard
- 10 years experience
- More as 100 000 plants in many branches:
 - Factory
 - Process
 - Train
 - Cable car
 - Fun rides
 - Nuclear
 -



PROFI-safe, the proven and established market leader

PROFINET Marketing - Benefits

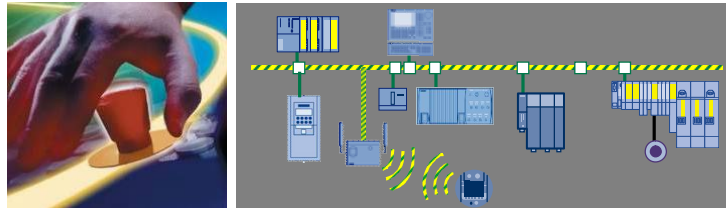
Standardized safety technology

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Introduction
Uniform structures
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Safety for humans and machines

- Safety and standard data over one connection, within one station
- PROFI-safe via PROFIBUS and PROFINET



Summary

Save space, time and money with PROFI-safe

PROFINET Marketing - Benefits

Thank you for your attention!


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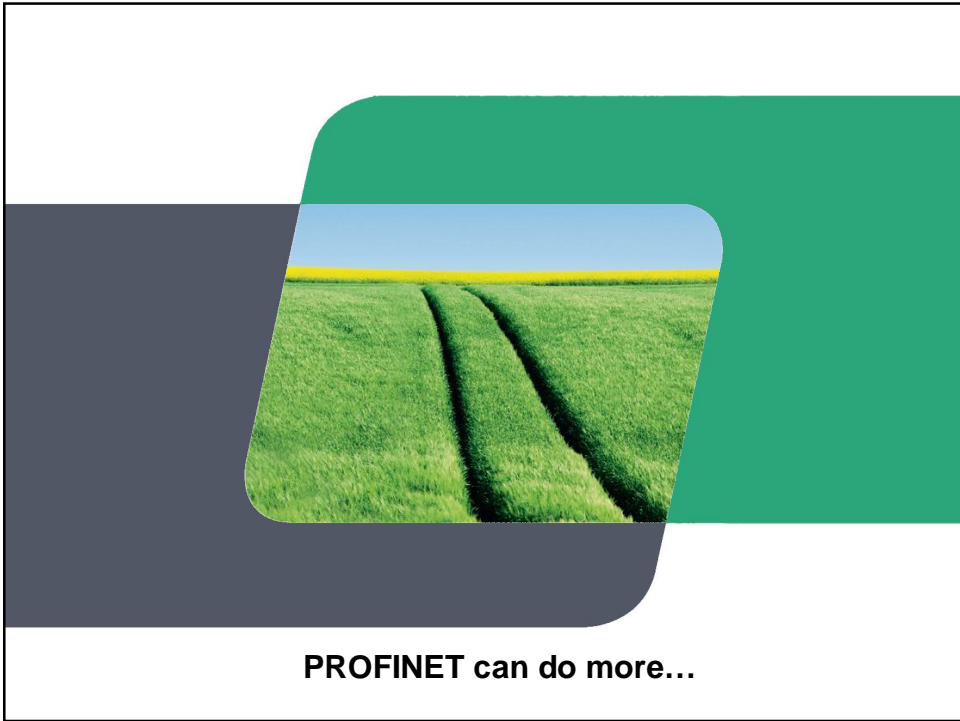
PROFIBUS/PROFINET Association South East Asia

1, Scotts road, #21-07, Shaw Centre
Singapore-228208

E-Mail: southeastasia@profibus.com

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PROFINET can do more...

New Functions available in the Market

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Introduction

Uniform structures

Performance

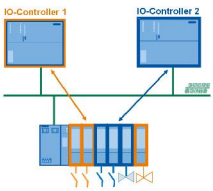
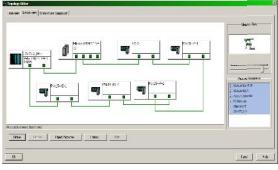
Integration


Innovations

Enhancement

New Functions of PROFINET

- **Shared-Device**
 - Access from multiple IO-Controllers to one IO-Device
- **I-Device (Intelligent Device)**
 - Controller as Intelligent IO-Device
- **Redundancy**
 - MRP – Media Redundancy Protocol
- **Web on Controller**
 - Userdefined Web Pages
- **IRT and Clocksynchronisation**



PROFINET Marketing - Benefits

MRP – Media Redundancy Protocol

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Introduction
Uniform structures
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- IEC 61158-5-10
- Edition 1.0 2007-12

INTERNATIONAL
Standard



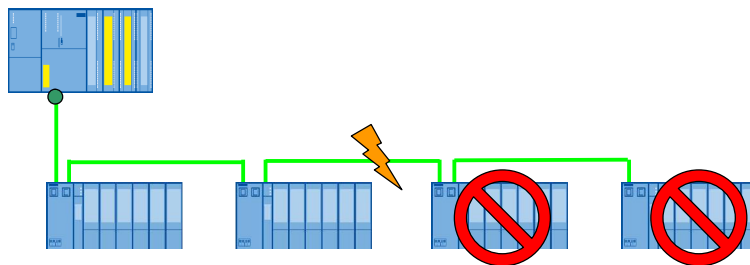
- Based on ring topology.
- Max. number (50) of ring nodes
 - PN IO controller
 - PN IO devices
 - Network infrastructure components (switches)
- Configuration and Diagnostic in Engineering
- Reconfiguration time 200ms

PROFINET Marketing - Benefits

Today's configuration possibility

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Introduction
Uniform structures
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Most of PROFINET Devices are equipped with a built in Switch on Board! Line Structure is possible!

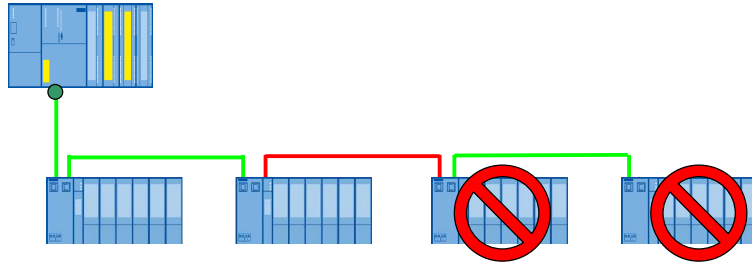


PROFINET Marketing - Benefits

Today's configuration possibility

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Most of PROFINET Devices are equipped with a built in Switch on Board! Line Structure is possible!

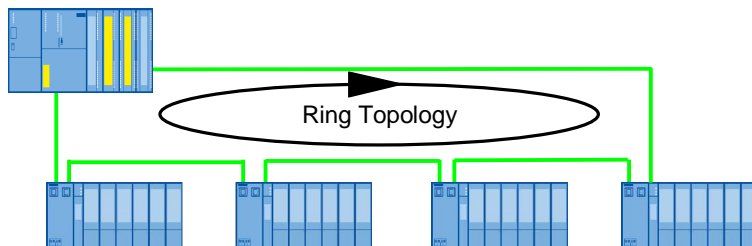


PR g - Benefit...

Now MRP comes in....

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Introduction
Uniform structures
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No switches needed, the function is implemented into the PROFINET Products!

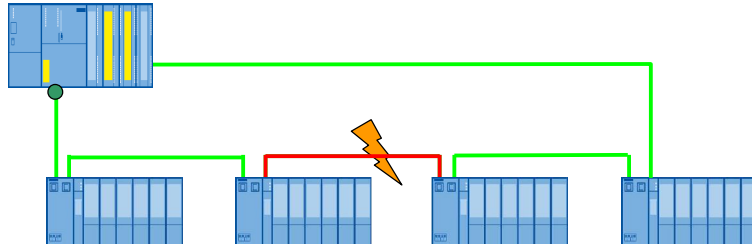


PR g - Benefit...

Now MRP comes in....

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Introduction
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Most of PROFINET Devices are equipped with a built in Switch on Board! Line Structure is possible!

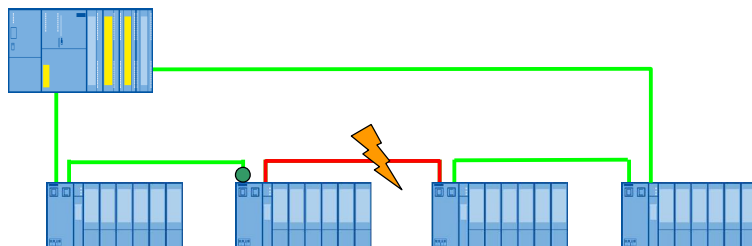


PR g - Benefit...

Now MRP comes in....

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Most of PROFINET Devices are equipped with a built in Switch on Board! Line Structure is possible!

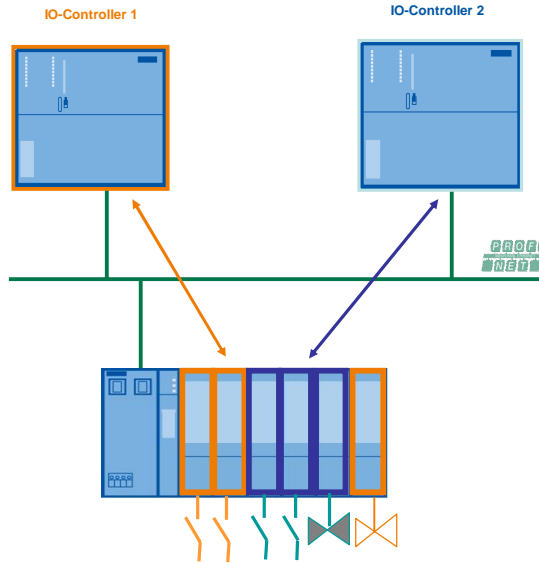


PR g - Benefit...

Shared Device

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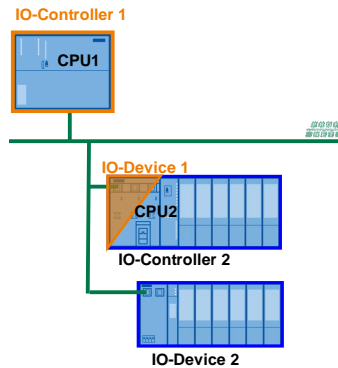
PROFINET Marketing - Benefits

I-Device - Use

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Introduction
Uniform
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Enhancement

- IO-Controller and additionally function as IO-Device
- Parallel operation of IO-Controller and IO-Device (I-Device)



I-Device

- Simple and known IO-Connections of CPUs
- Connection of CPUs in different Projects
- Connection to third party controller possible
- No PNP-Coupler necessary

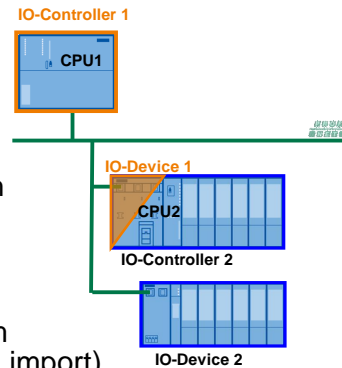
PROFINET Marketing - Benefits

Advantage of I-Device

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Introduction
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- Controller and Device function at the same time
- Preprocessor in the I-Device
- Distribute intelligence
- Fast Controller-Controller communication (~1ms with 1440Bytes)
- Easy to use PROFINET Communication between PROFINET-Controller from different Vendors (GSDML import)



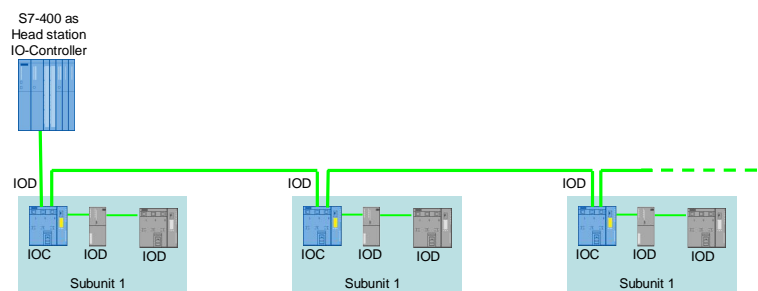
PROFINET Marketing - Benefits

Example: Distributed Intelligence

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Introduction
Uniform structures
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- Distributed an local control of the process
 - Spread automation tasks into different levels
- Coordination of Head station in this example S7-400
 - Preprocessor in the Subunits



IOD = IO-Device
IOC = IO-Controller
PROFINET Marketing - Benefits

Example: Distributed Intelligence

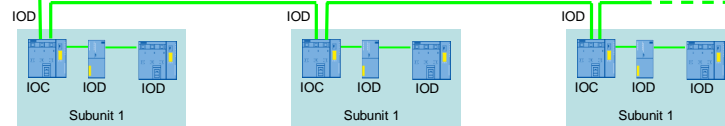
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S7-400 as
Head station
IO-Controller



- Every unit can be controlled locally without Head station (example manual mode)



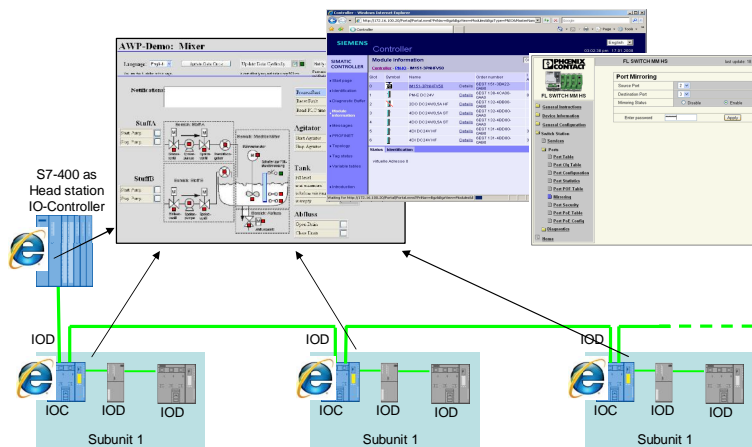
IOD = IO-Device
IOC = IO-Controller
PROFINET Marketing - Benefits

Web mechanism

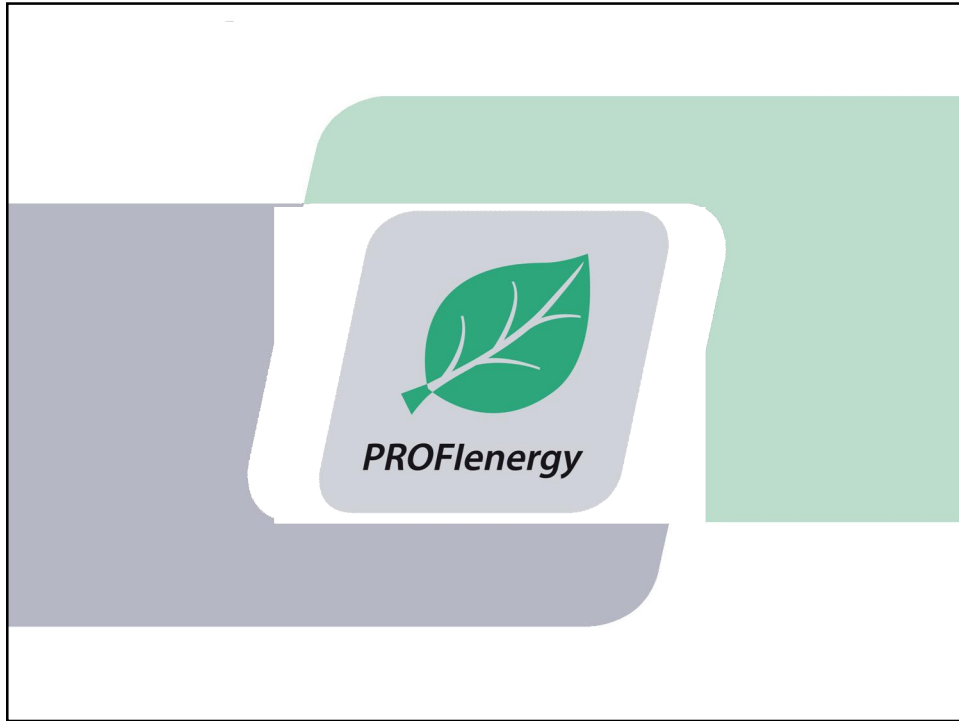
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- Webdiagnostics and User defined WebPages to access Process value



PROFINET Marketing - Benefits

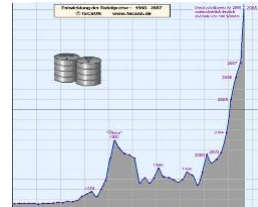


PROFenergy: What's in for me?

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- PROFINET is the first field bus worldwide with a standardized profile for efficient energy management.
- PROFINET is a synonym for innovation. Requirements from customer side are taken seriously and implemented very fast.
- PROFenergy generates additional value to your products and safes your business in the long term.



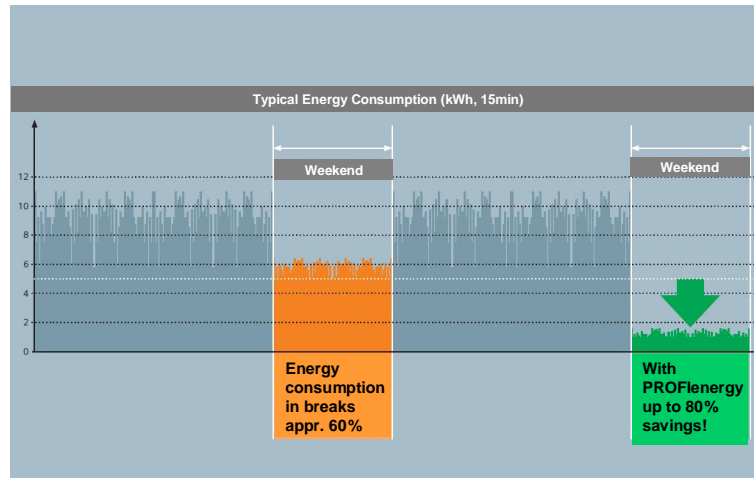
Use PROFenergy, to save energy and costs!

PROFINET Marketing - Benefits

An Example From The Automotive Industry

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Introduction
Uniform structures
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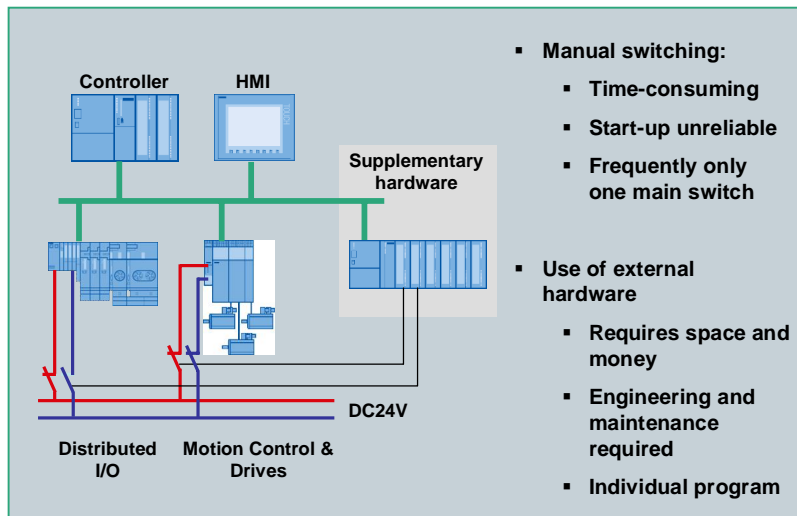


Energy consumption during breaks appr. 60%!

PROFINET Marketing - Benefits

Why PROFenergy?

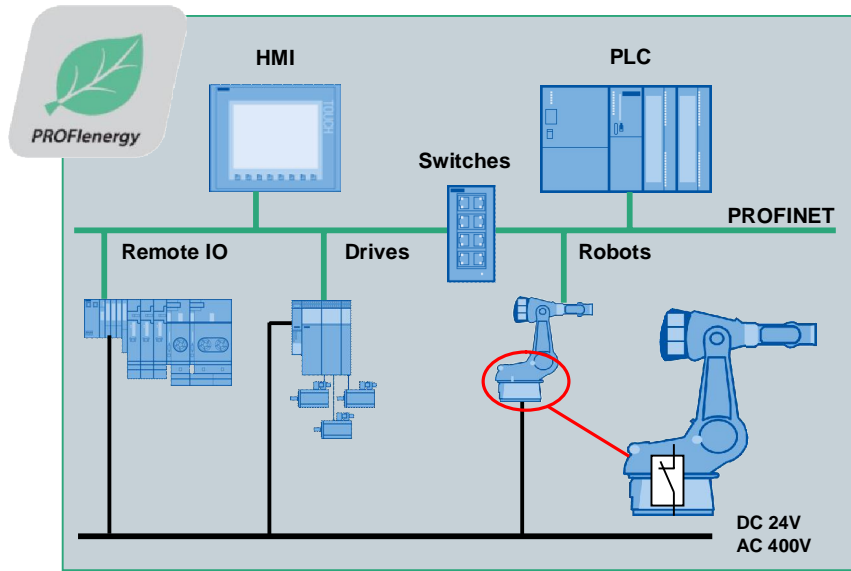
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**Discrete solutions are rarely accepted.
Saving potential in the pauses is not used.**

PROFenergy Profile

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PROFINET Marketing - Benefits

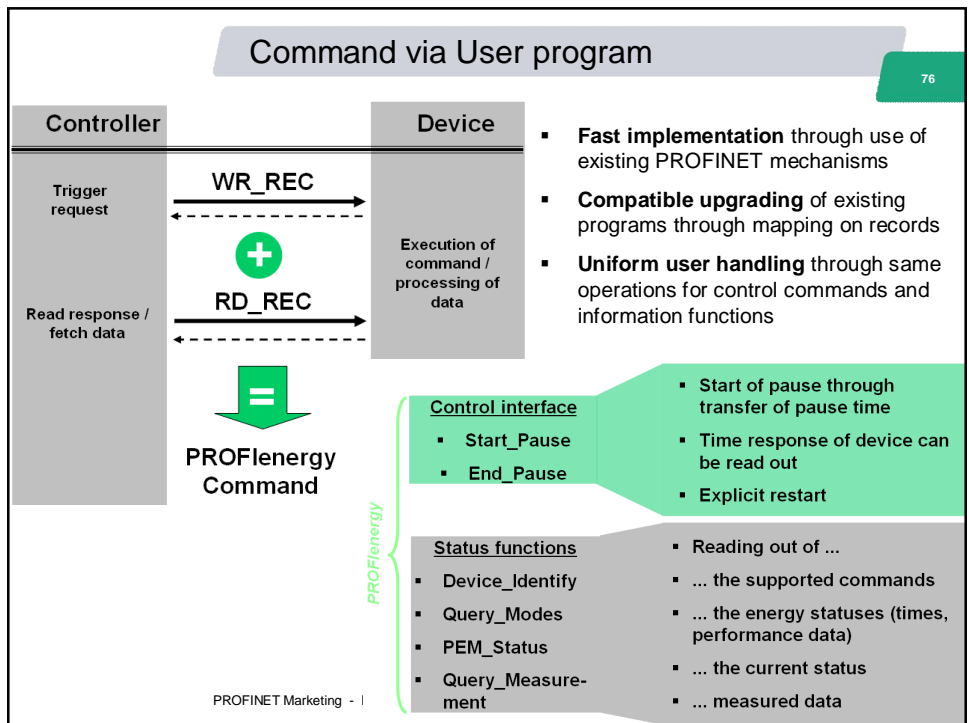
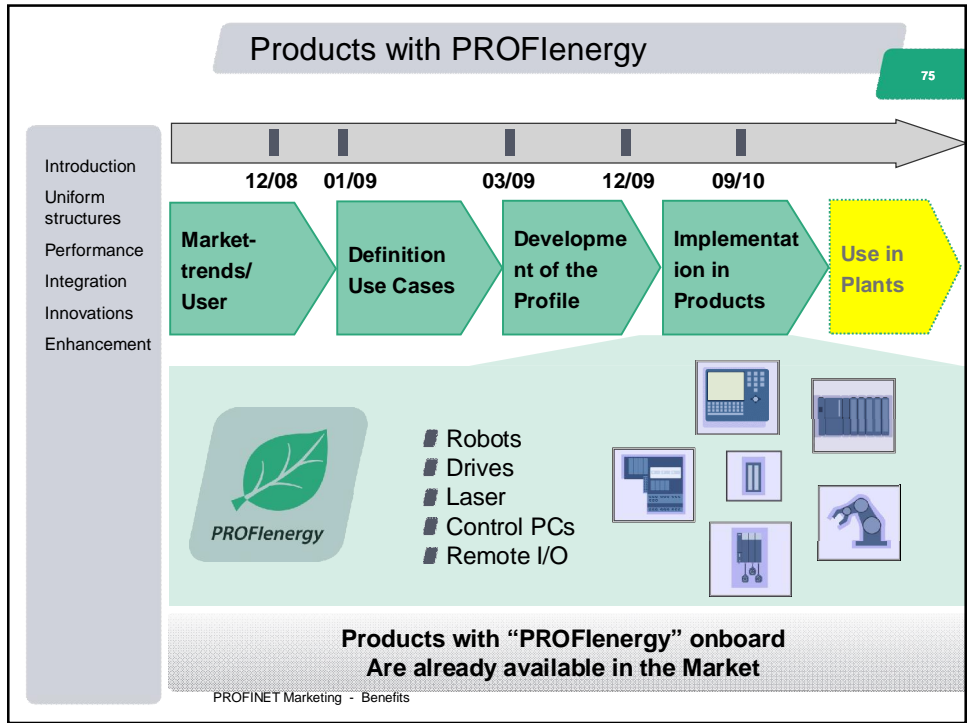
The PROFenergy working group

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- Introduction
- Uniform structures
- Performance
- Integration
- Innovations
- Enhancement

The central part of the slide features the PROFenergy logo (a green leaf) surrounded by the logos of its working group members. The members include Siemens, Phoenix Contact, Rexroth (Bosch Group), Murr Elektronik, Lenze, ABIB, Bosch, SCA Schucker, AIT (Institute for Automation & Industrial IT at FH K&H), WZL RWTH Aachen, ifak, Hilischer (Competence in Communication), and SEW Eurodrive. Danfoss is also listed as a member.

PROFINET Marketing - Benefits



Summary

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Introduction
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Machine Constructor

- **Fast commencement** through integration into known product families and use of existing mechanisms
- **Investment safeguarding** through simple expansion of existing programs
- **Low programming requirements** through reloadable function blocks
- **Competitive advantage** through marketing of low-energy machines

Plant Owner

- **Saving of energy costs** through switching-off of non required loads
- **Reduction in production costs** safeguards competitive advantage
- **Compliance with statutory/factory** environmental protection agreements
- **Investment safeguarding** through upgrading of existing factory standards

Only simple and fast solutions result in success and are accepted in practice!

PROFenergy Video Presentation

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News and Info about technology

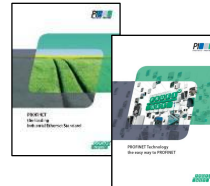
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Internet  www.sea.profibus.com
 www.sea.profinet.com

Flyer

-  PROFINET Flyer
-  PROFINET System description
-  PROFINET Technology brochure
-  PROFInergy
-  PROFIsafe




Guidelines

-  Design
-  Cabling and Assembly
-  Commissioning



Support















-  Training Programs (Certified PROFINET Engineer/Installer)

PROFINET Marketing - Benefits

Summary

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Introduction
Uniform structures
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-  Unlimited number of devices
-  Multimaster
-  High network flexibility
-  Wireless technology
-  No network installation rules except 100m Ethernet (Standard IEEE Regulation)
-  High Data quantity, 1440 Bytes In/Out
-  Redundancy, I-Device, Shared Device
-  Isochronous mode together with IT traffic
-  Standard switches with standard cables
-  Fieldbus integration with Proxy technology even wireless
-  Same look&feel to configure PROFIBUS compared to PROFINET
-  Webdiagnostics
-  PROFInergy
-  Safety Data on the same network and integrated

PROFINET Marketing - Benefits

Thank you for your attention!

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