

Winning solutions for industry: TVD architectures

OEM Initi@tive Monaco 2008

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MAS18

Agenda:

Introduction

TVD architectures

With full support

Conclusion

Agenda



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Introduction

- Based on an analysis of customer applications, we have defined 10 generic automation architectures
- Each automation architecture is :
 - An answer to a set of customer values and automation requirements
 - A tested, validated, documented and supported solution
- These automation architectures can be customized to create the best solution for each machine's requirements



Tested, Validated, Documented solutions

- Tested

- Tested in performance labs by experts
- Checked for the correct functioning of performance levels in all possible configurations

- Validated

- Full functional compatibility of devices

- Documented

- A complete user guide gives all the details required for installing and building your application with confidence
- Ready to use with e-plan: predefined CAD panel designs & wiring diagrams



Agenda:

Introduction



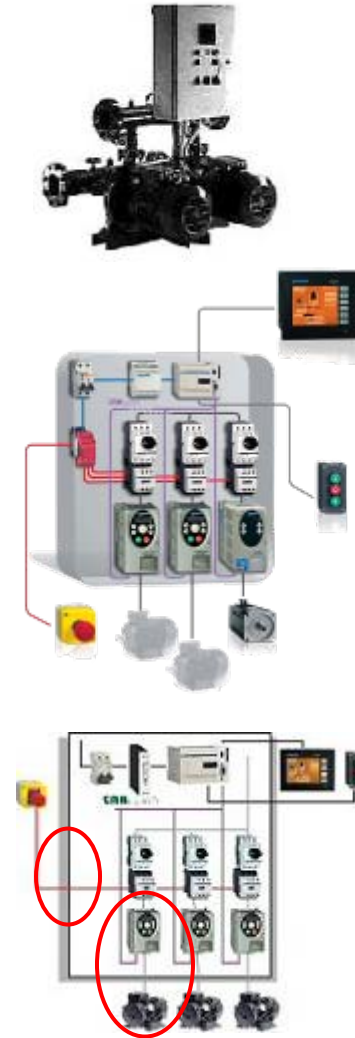
TVD architectures: Tested, Validated, Documented

With full support

Conclusion

From generic to dedicated architectures

- Once the automation requirements for the facility have been considered – **performance, installation, constraints, cost and size** – the best preferred automation architecture that meets your needs is identified.
- Our specialists can provide help and advice for customizing or adapting this architecture to **create the best solution for your facility**. If needed, critical points can be tested on our platforms to validate and confirm the solution.
- Building your automation solution with our support, based on a preferred automation architecture that has already been tested, validated, and documented is a real added value that will help you **save time and avoid trial and error**.



PICCS
Performance - Installation
Constraints - Cost - Size

TVDA
Ready to
customize

**Customized
solution**

A complete offer from simple to complex machines

Discover a selection of our **simple, optimized, performance** automation architecture

Compact / hardwired / Logic controller / Zelio
The best implementation for starting in automation with confidence...



Compact / Hardwired / Logic controller / Twido
Just what you need with guaranteed results...



Compact / CANopen / Logic controller / M238
Simple setup with easy installation & maintenance



Compact / Hardwired / HMI controller / XBT GC
The Most compact architecture just enough at the best price...



Compact / CANopen / HMI controller / XBT GC
The Most compact architecture open to evolution...



Compact / CANmotion / Motion controller / LMC
Improved machine profile with advanced intelligence and ease-of-use...



Compact / CANopen / Logic controller / Twido
Easy to implement and to use, open to evolution...

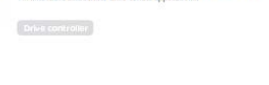
Distributed / CANopen / Logic controller / M238
Easy to implement and use for distributed and modular machines...



Compact / Hardwired / Logic controller / M238
An excellent solution using simple controls architecture...



Compact / CANopen / Drive controller / ATV CI
An innovative solution for drive centric application...



TVD Architectures

- Simple HW Zelio PLC
- Optimized HW Twido PLC
- Optimized CANopen Twido PLC

Simple & Legacy

- Optimized HW XBTGC HMI
- Optimized CANopen XBTGC HMI
- Optimized CANopen ATV CI Drive
- Optimized HW M238 PLC
- Optimized CANopen M238* PLC
- Optimized AS Interface M238 PLC

Optimized

- Performance HW M258 PLC
- Performance CANopen M258 PLC
- Performance CANmotion LMC258 Motion

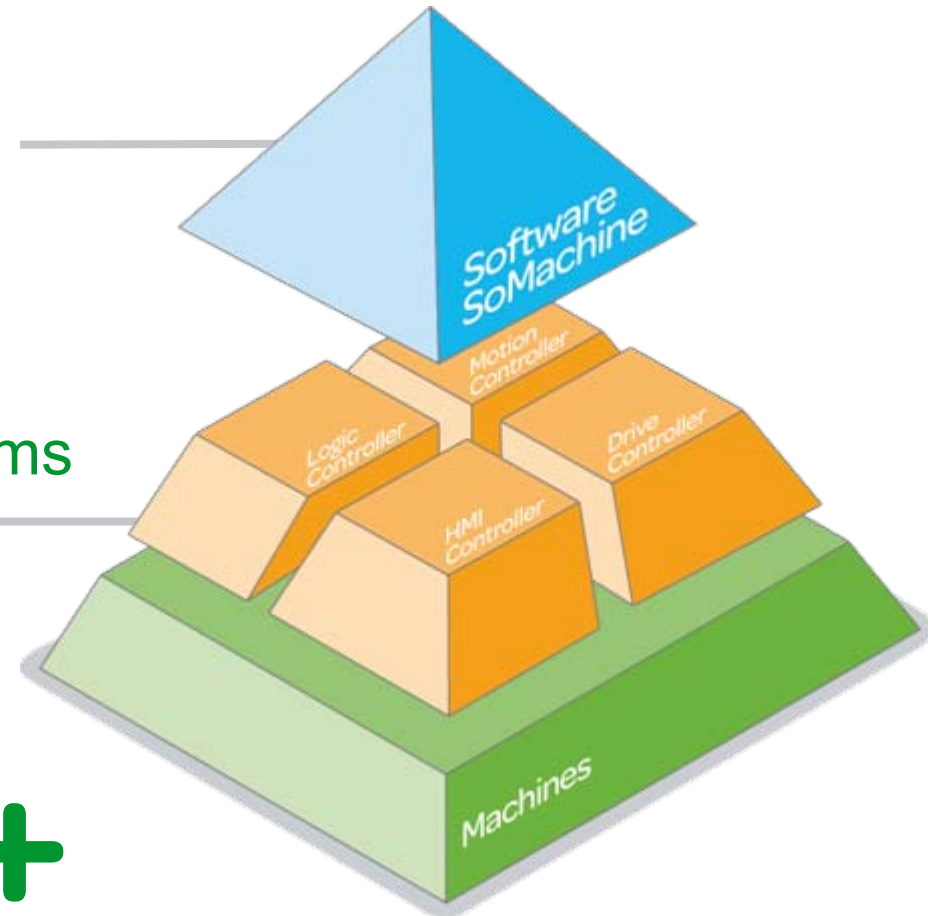
Performance

100% flexibility and optimization with Flexible Machine Control

> 1 single Schneider Electric software
Simplify machine programming & commissioning with SoMachine



> 4 hardware Control Platforms
Embedded Intelligence where it is needed



Logic controller



Motion controller



HMI controller



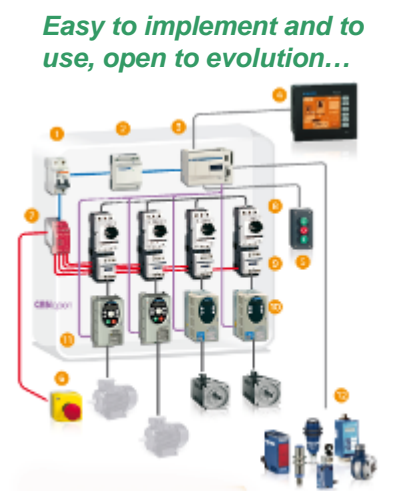
Drive controller



Safety & I/O

Architectures for simple machines with Zelio and Twido *(based on legacy offers)*

- 3 architectures ensuring simplicity and speed as well as faultless operation of your machines
- They allow you to get started in automation or to create a simple and economical automation system, without special skills
- Easy to implement solutions that are safe, modular, and flexible using
 - Hardwiring or CANopen
 - Twido PLCs, Altivar & Lexium drives, Magelis displays



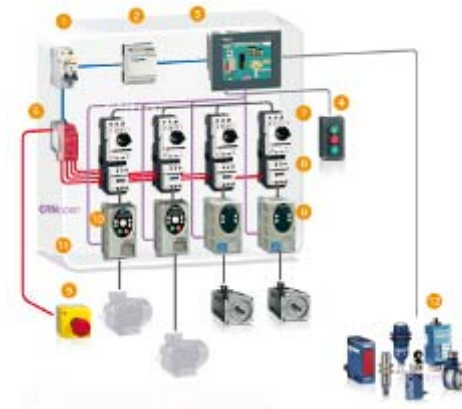
NEW TVD architectures with M238 logic controller

- 3 architectures for **compact or modular machines** requiring optimized performance and robustness
- Pre-configured services that manage drives and servo drives on CANopen **simplify the implementation** of machines requiring performance and robustness
- **CANopen bus provides flexibility and modularity** to make easy adaptations to your line of machines



NEW TVD architectures with XBTGC HMI controller

- 2 architectures for **compact machines** requiring optimized performance in small footprint
 - The most compact architecture at the best price with hard-wired XBTGC
 - Or open to evolutions with CANopen XBTGC



NEW TVD architectures with drive and motion controllers

- **Drive Controller :**

An innovative solution for drive centric applications

- The drive controller will offer the best optimized performance with embedded intelligence in the drive

- **Motion Controller :**

Lexium Motion Controllers provide advanced intelligence and ease of use

- CANOpen and CANmotion offer flexibility and performance at a reasonable price



And more to come

- with M258 & LMC258
- a single software SoMachine
- and a lot of Application Function Blocks

Tested, validated, documented function blocks on targeted applications

- Ready to use

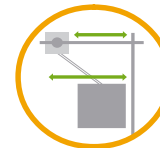
- Pre written machine functions

- Simple parameter setting

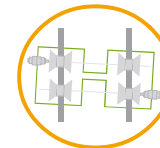
- Drag and drop

- Developed by Applications engineers

- Optimize machine design by leveraging the collective knowledge of our industry specialists.



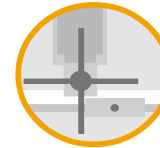
Anti-sway



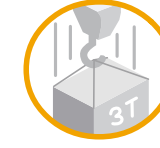
Anti-crab



Overspeed



Limit switch



Overload



Trolley synchronization



Wind speed



Monitoring data storage

Exemple function blocks for hoisting market



Speeds up design,
commissioning, installation
& troubleshooting

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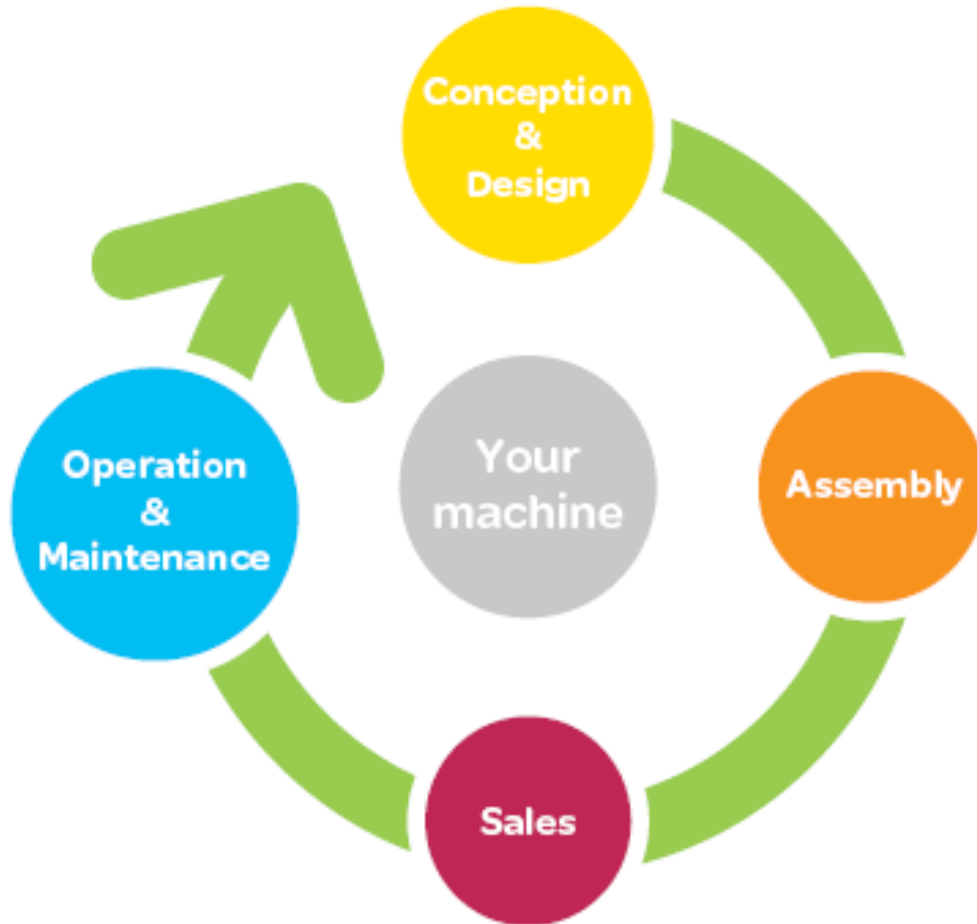


With full support

Conclusion

TVD architectures

Tools across the entire machine life cycle



Identify with PICCS questionnaire
Select TVD Architecture
Tune
Support

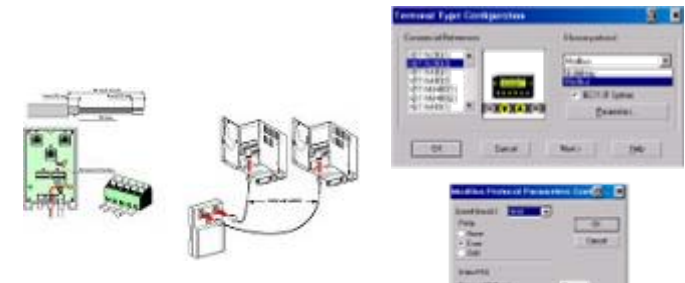
SUG: **S**ystem **U**ser **G**uides
- With E.plan diagram
- With source codes

Complete automation documentation
- Wiring diagrams
- List of products

Help to maintain via **SUG** & Technical Support

Full support for easy implementation

- Each TVD architecture is documented in a System User Guide, which provides a step-by-step explanation of the full implementation, including wiring and programming.
- Installation & Implementation
 - Detailed description of the different steps necessary to install the HW and setup the software
 - Step by step description to initialize, configure, program, and start up the system
- Wiring diagram and programming
 - Wiring diagram of the implementation
 - Sample source code to start up the system



Full support for operation & maintenance

- Platforms and a dedicated team at your service
- Each TVD architecture is based on a selected platform for optimal results.
- They are updated as our product offer evolves.
- A team of specialists can perform customized tests to validate your configuration.



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- With TVD architectures, Schneider Electric can propose **automation architecture solutions**
- We propose a set of architectures for your machines and facilities, from the simplest to the most complex, with **full support** adapted to your expertise
- Each TVD architecture is **tested, validated, and documented**, and allows you to quickly create your solution with confidence



3 main messages

- With TVD architectures, Schneider Electric can propose automation architecture solutions.
- We propose a set of architectures for your machines and facilities, from simple to complex, with **full support** adapted to your expertise.
- Each TVD architecture is **tested, validated, and documented**, and allows you to quickly create your solution with confidence.

Thanks
for your attention

For further information please visit our booths