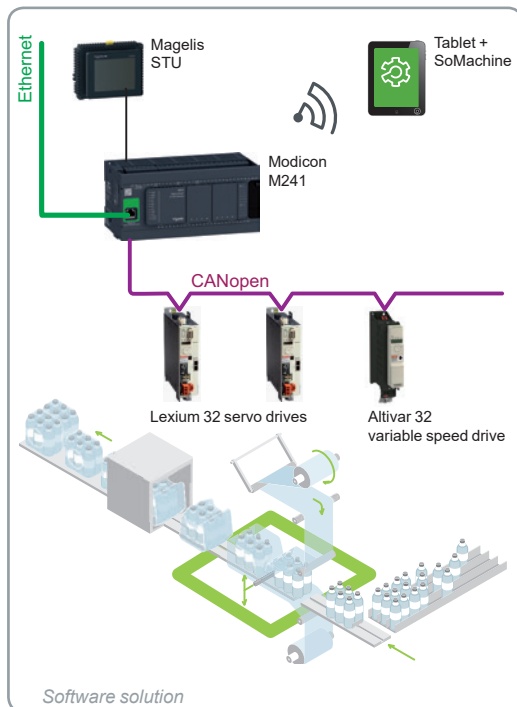


SoMachine software

Simplify machine programming and commissioning



SoMachine software platform



Presentation

SoMachine is the machine builder's solution software for developing, configuring, and commissioning the entire machine in a single software environment, including logic, motion control, HMI, and related network automation functions.

SoMachine allows you to program and commission all the elements in Schneider Electric's Flexible and Scalable Control Platform, the comprehensive solution-oriented offer for machine builders, which helps you achieve the optimum control solution for each machine's requirements.

The Flexible and Scalable Control Platforms offer includes:

- Controllers:
 - Modicon logic controllers: M238, M241, M251, M258
 - Modicon motion controllers: LMC058, LMC078
 - HMI controllers: Magelis SCU, XBTGC, XBTGT/GK
 - Drive controller: Altivar IMC
- I/O modules: Modicon TM2, Modicon TM3, Modicon TM5, and Modicon TM7 offers
- HMIs:
 - Magelis™ STO/STU Small Panels
 - Magelis™ GH/GK/GT Advanced Panels
 - Magelis™ GTO Optimum Advanced Panels
 - Magelis™ GTU Universal Panels

Scalability

- SoMachine allows flexible and scalable use of controllers in the SoMachine context: it is easy to integrate the M221 logic controllers from SoMachine Basic into a SoMachine project.
- The Flexible Control feature allows you to replace a controller with another one, while retaining the logic and the configuration. Several versions of SoMachine can run in parallel in a system to help ensure compatibility.

SoMachine is a professional, intuitive, and open software solution integrating Vijeo Designer. It also integrates the configuring and commissioning tool for motion control devices. It supports all the IEC 61131-3 languages, integrated fieldbus configurators, expert diagnostic and debugging functions, as well as multiple capabilities for maintenance and visualization including web visualization. SoMachine integrates tested, validated, documented, and supported expert application libraries dedicated to pumping, packaging, hoisting, and conveying applications.

SoMachine is a single software environment with:

- One software package
- One project file
- One connection
- One download operation

Visual graphic user interface

Navigation within SoMachine is intuitive and highly visual. Presentation is optimized in such a way that selecting the development stage of the desired project makes the appropriate tools available. The user interface suggests the tasks to be performed throughout the project development cycle so that nothing is overlooked. The workspace has been streamlined, so only that which is necessary and relevant to the current task is featured, without any superfluous information.

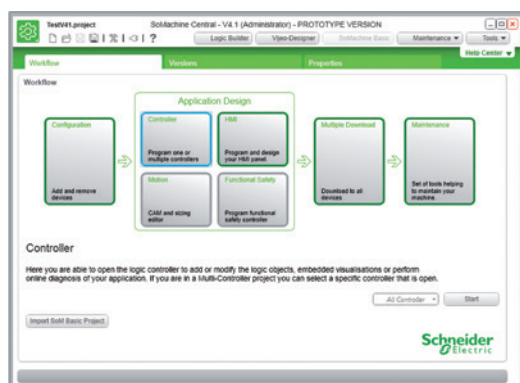
Learning center

From the home menu, the learning center provides several tools to help you get started with SoMachine. An animated file explains the SoMachine interface and concept in brief. An e-learning section gives you the opportunity to teach yourself about SoMachine and its new features. A third section provides links to several documented examples of simple coding with SoMachine.

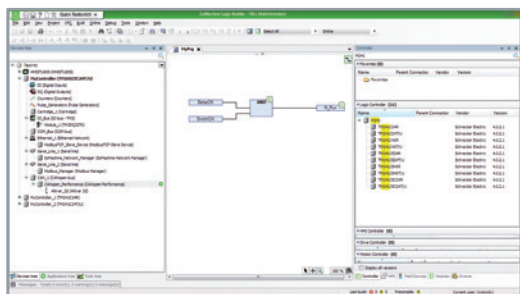
An intuitive and efficient online help is also available to answer your questions.

SoMachine software

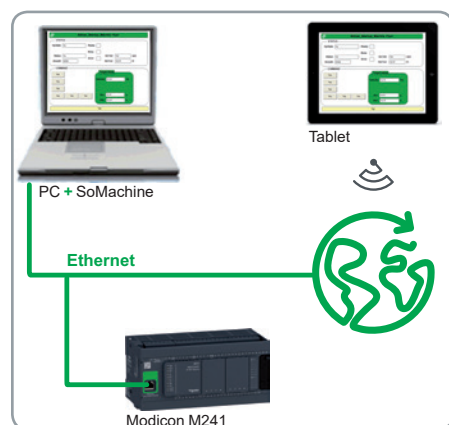
Simplify machine programming and commissioning



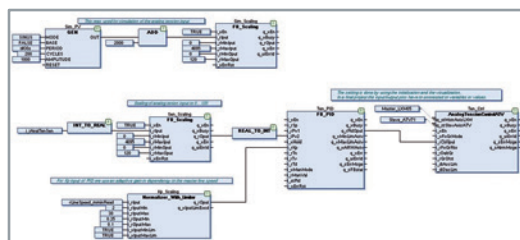
Project management



"Catalog"



Web visualization



Application function blocks

Functions

Project management

The software's project management functionality lets you browse through existing projects quickly to gather the relevant information without needing to open each project individually.

There are several ways of creating a new project: using tested, validated, documented architectures (TVDA), using the examples provided, using an existing project, or starting with an empty project. There is quick access to the most recently used projects.

You can also create a project from a standard project taking advantage of a preconfigured program (task, library, etc.).

Project properties

You can define additional information for each project using simple forms. It is also possible to attach documents and custom or configuration pictures. The software also supports automatic versioning.

Configuration

The user interface allows you to configure devices and architectures in a hierarchical order.

The various elements of the configuration can be easily assembled by selecting from a device "catalog" (controllers, expansion modules, etc.) with a simple drag & drop.

The catalog can be searched and filtered as required.

Device templates are available to easily add preconfigured equipment.

Programming and debugging

Programming is an essential step, and the user has to carefully design it to be as efficient as possible. Advanced control and HMI functions cover all the needs of machine builders in terms of creating the control and visualization systems.

Powerful tools allow debugging and functional tests such as simulation, step-by-step execution, breakpoints, and traces.

Documentation

SoMachine allows you to customize and generate a project report for printing:

- Select the items to be included in the report
- Organize the sections
- Define the page layout
- Print the report

Transparency

SoMachine is an FDT (Field Device Tool) container and supports DTM (Device Type Manager) files.

SoMachine manages remote devices via DTM files, providing direct communication with each device.

Communication is transparent via SoMachine, the controller, and the fieldbus (Modbus serial link, Modbus TCP, CANopen, and EtherNet/IP).

SoMachine also supports FDT/DTM connections directly from the PC to the devices via Modbus serial link or Modbus TCP.

Application Function Block (AFB) libraries for dedicated solutions

SoMachine includes application function block libraries for selected machines.

Their simple configuration speeds up design, commissioning, installation, and troubleshooting.

These libraries cover the following applications:

- Packaging
- Hoisting
- Handling
- Pumping
- Material working

Tested Validated Documented Architectures (TVDA)

SoMachine provides a variety of project examples and preset projects with ready-to-use architectures you can adapt to individual requirements. Some of them are generic TVDAs based on controller configurations. Others can be dedicated to specific solutions by application-oriented TVDAs.

You can find the TVDA that corresponds to your requirements using the

[System Solutions TVDA Selector](http://industryproducts.schneider-electric.us/msxselector/index.html#/tvda2) accessible at this address:

<http://industryproducts.schneider-electric.us/msxselector/index.html#/tvda2>.