

**SIEMENS****Motion Control**

SIMOTION IT

Diagnostics, maintenance and operator control using standard web tools – at any time and from any location

Up until now, machines were programmed and parameterized using engineering tools. In parallel, the HMI with the screen forms was created for the operator. The topic of diagnostics was either resolved in the engineering tool or by using password-protected operator screen forms. Access to the machine always assumed that a technician was present locally or data could be exchanged via an industrial interface.

The actual SIMOTION controllers make it easy for you to access the machine: SIMOTION IT

With SIMOTION IT – the new “window” to your machine –, you can also access data which up until now could only be readout by programmers or – if permissible – changed. You only require a PC and an Ether net cable. Now, you only have to open a standard browser and already you can communicate with the control from anywhere around the globe. All of the standards for a secure Internet connection, which you generally have already setup for the company network, can be used. Unauthorized access to the machines can then be effectively prevented using a firewall, gateway, SSL encryption and by creating user groups. A simplified display of diagnostic pages is also included for restricted embedded devices (e.g. PDAs).

Web browser – diagnostics tool and HMI in one

In addition to the standards such as variables, lists and diagnostic buffer, a wide range of information is available about the state of the machine – from the axis overview up to runtime trace with graphic display and measuring cursor. And what is more important, not only locally, but also using remote access via a secure tunnel – from anywhere. As a consequence, manufacturers can maintain “their” machines themselves without having to actually go on-site – a costly and time-consuming affair. Access to all process values permits analyses that go far beyond the boundaries of situations that have either been considered to be feasible or have already occurred. Without doubt, an important source of information to minimize down-times and a basis for future updates.

Faster restart

When a fault develops, it is important to quickly diagnose the problem. This is the reason that with SIMOTION, control and drive data can be quickly and efficiently accessed without requiring a special tool. To do this, all three SIMOTION hardware platforms are equipped as standard with extensive web functionality at the firmware level.

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Security has top priority

Just reading out the log memory already provides a wealth of information for extensive first diagnostics when a fault develops. In order to actively make changes, the user must be appropriately authorized and only then can he write-access the system variables. In addition to local access using a PC web browser, the standard Ethernet also allows remote access from the Intranet of the operating company and – via a secure tunnel – access by the machine manufacturer for maintenance.

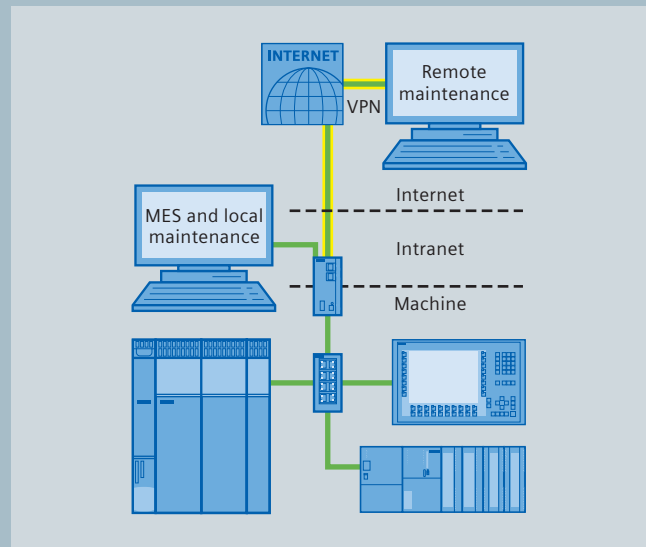
Faster diagnostics and maintenance

The standard web pages already supply a wide range of information about the device and its actual state; this includes information about the current firmware versions, hardware components as well as technology objects. Further, device resources such as CPU utilization, memory usage, task runtimes and operating states can all be accessed. It is also possible to access configuration and drive variables, the extended diagnostics buffer and the technology object alarms. The data to be acquired can be compiled from a simple browser as required – and the trace including the trigger can be parameterized. To evaluate the recorded trace data, Siemens provides a graphic tool with zoom, scaling and measuring cursor at no charge. User programs can be exchanged and parts of the software can be upgraded via an interactive user interface.

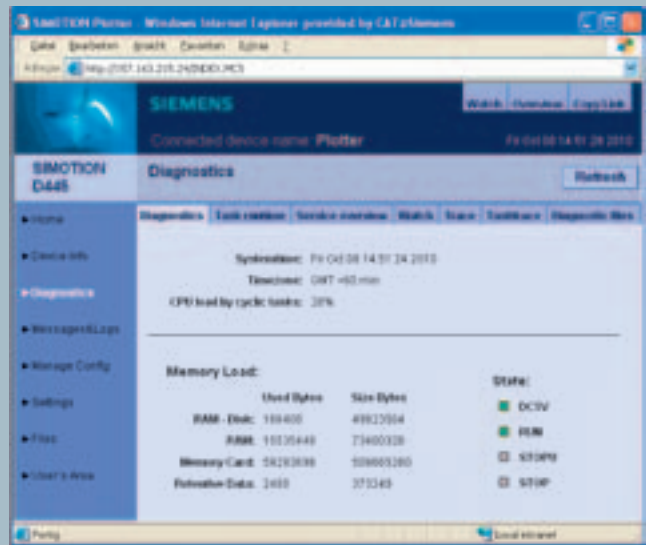
Use of modern, web-based user tools

In addition to the web server, a so-called OPC XML DA server has been integrated into the SIMOTION runtime system. This function package allows applications to be connected to a control using Internet-based technologies so that data and operating states in the SIMOTION controller can be accessed. This communication mechanism – specified by the OPC Foundation – is also based on the standardized Hypertext Transfer Protocol HTTP. Using the integrated virtual machine (Java runtime environment), individual Java applications can be run on SIMOTION controllers – completely independently of the SCOUT engineering system.

Thanks to SIMOTION IT, all of these technical possibilities can be implemented with minimum associated time and costs. When are you going to open your new “window” to the automation?



Connection to the Intranet and Internet



Controller diagnostics using a standard browser

Advantages of SIMOTION IT

- Higher machine availability through shorter downtimes
- Faster diagnostics and resolving faults
- Simple upgrade installation
- All data for optimization and maintenance work
- Secure access via the web without engineering tools
- Access to versions, variables and system states (e.g. alarms, faults, utilization level)
- Web-based machine management and control
- Based on HTML and XML
- Java applications possible via the integrated server