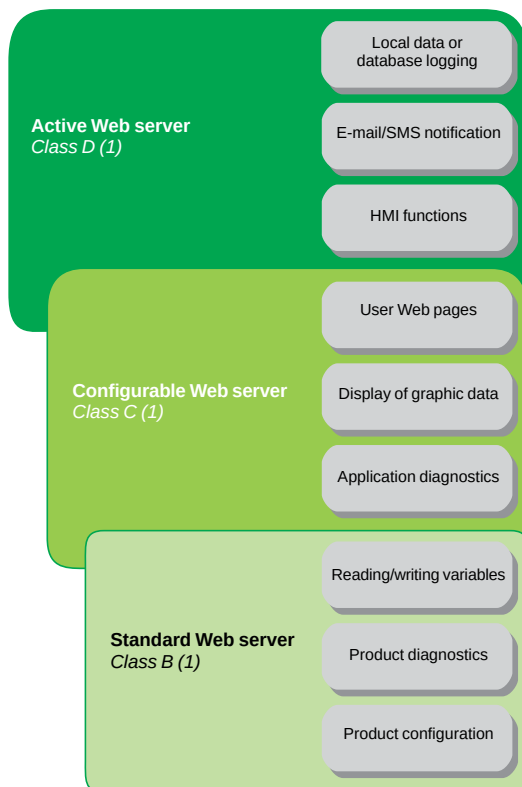


Modicon Premium automation platform

Transparent Ready, system approach

FactoryCast Web servers and gateways



FactoryCast Web server offer

Schneider Electric offers a wide range of Transparent Ready products: controllers and PLCs, industrial PCs, HMI devices (2), variable speed drives, distributed I/O modules, gateways, Web servers, switches, SCADA software, inductive identification systems, etc.

These products provide different levels of Web services and communication services on Ethernet, according to user requirements.

Among these Transparent Ready products, FactoryCast defines a range of modules and gateways with configurable Web server combining:

- Real-time communication functions based on Ethernet Modbus/TCP
- Predefined Web pages for advanced installation diagnostics
- And the capacity to host dynamic user-defined Web pages or any document (.doc, pdf, etc) designed to assist maintenance

Presentation of the Web server modules and gateways

In the Transparent Ready approach, Ethernet modules and Web gateways integrate Ethernet services (Modbus/TCP messaging, SNMP network management functions, etc.) They also offer, depending on the product, the following Web functions:

- Standard Web services (predefined)
- FactoryCast configurable Web services
- FactoryCast HMI active Web services

There are two ranges of configurable Web server:

- **FactoryCast Web modules for PLCs**, which are embedded in the TSX Micro, Premium, Quantum and Modicon M340 automation platforms. These modules provide transparent access to system and application diagnostic information in real time using Web technologies.
- **FactoryCast Web Gateway modules**, with all the network interfaces in one stand alone unit:
 - A modem (depending on the version)
 - An RAS/Router function
 - A customizable Web server
 - HMI functions (depending on the version)

FactoryCast Gateways are a cost-effective response to requirements for remote access to customized remote diagnostics, maintenance, monitoring and control services using a simple Internet browser as well as to requirements to integrate serial installations (Modbus RTU or Uni-Telway) in an existing Ethernet Modbus/TCP infrastructure.

Presentation of the Web services

Standard Web services

Standard Web services are integrated in the following Schneider Electric Ethernet products: automation platform processors and Ethernet modules, distributed I/O modules, variable speed drives and Ethernet gateways. See page 43617-EN/3

Using a simple Internet browser, the standard Web server provides the following "ready-to-use" functions:

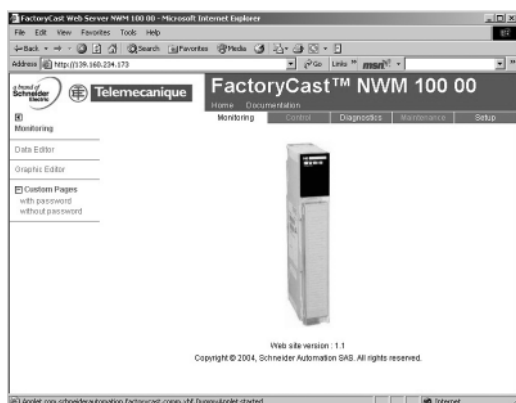
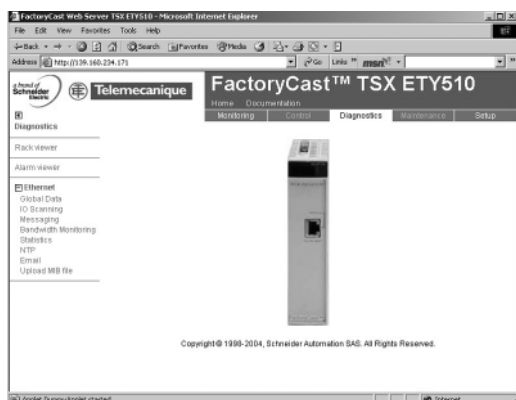
- Product configuration
- Remote diagnostics and maintenance of products
- Display and adjustment of products (read/write variables, status)

The embedded Web server is a real-time data server. All the data can be presented in the form of standard Web pages in HTML format and can therefore be accessed using any Web browser that supports the embedded Java code. The standard functions provided by the Web server are supplied "ready-to-use" and therefore do not require any programming of either the PLC or the client PC device supporting a Web browser.



(1) In order to simplify choice and ensure their interoperability within a system, each Transparent Ready product is identified by the class of services it provides. Letter A, B, C or D (level of service for the Web server) followed by 10, 20 or 30 (level of service for Ethernet communication).

(2) HMI = Human Machine Interface.



Presentation of the Web services (continued)

FactoryCast configurable Web services

The configurable Web services are integrated in the following Schneider Electric Ethernet products: FactoryCast PLC modules (TSX Micro, Premium and Quantum) and FactoryCast Gateway modules.

In addition to the standard Web services, the configurable Web servers offer the following functions:

- Graphic application diagnostics (customized graphic views created by the user).
- Graphic monitoring via animated Web pages created by the user and stored in the Web server module.

■ And depending on the products:

- Management of PLC system and application alarms with partial or total acknowledgement (ready-to-use Alarm Viewer function pages).
- Open data server interface. SOAP/XML protocol, WSDL interface (1).

FactoryCast Web servers can also be used to customize the supervision, diagnostics or maintenance interface via user-defined Web pages or any other document (doc, pdf, etc.) hosted in the module.

FactoryCast HMI active Web services

The active Web services are integrated in the Premium and Quantum FactoryCast HMI PLC modules.

In addition to the FactoryCast Web services, the FactoryCast HMI modules provide HMI functions, which are executed in the module itself:

- Real-time HMI database management, independent of the PLC processor
- Arithmetic and logical calculations based on HMI data
- Direct connectivity with relational databases (traceability)
- Data Logging: recording of data in the module
- Display of Unity Pro graphic runtime screens in the form of Web pages
- Recipe management (read/write)
- Alarm and report notification by e-mail
- Active page server, dynamic generation of animated HTML pages
- Dynamic generation of HTML reports
- Open data server interface SOAP/XML WSDL interface protocol (1).

FactoryCast HMI is defined as an active Web server used to execute HMI functions without any effect on the PLC application program and therefore on its scan time.

(1) Standard protocol providing interoperability with computer management applications (see pages 48290-EN/2).

Web server products

Product		Reference	Embedded Web server		
			Standard, class B20	Configurable, class C20/C30	Active, class D10 (2)
Modicon Quantum platform	Processors	140 CPU 651 50/60		—	
	Modules	140 NOE 771 01		—	
		140 NOE 771 11	FactoryCast		
		140 NWM 100 00	FactoryCast		FactoryCast HMI
Modicon Premium platform	Processors	TSX P57 2●23 M		—	
		TSX P57 3623 M		—	
		TSX P57 4823 M		—	
		TSX P57 1634 M		—	
		TSX P57 ●634 M		—	
	Modules	TSX ETY 4103		—	
		TSX ETY 110WS	FactoryCast		
		TSX ETY 5103	FactoryCast		
		TSX WMY 100	FactoryCast		FactoryCast HMI
Modicon M340 platform	Module	BMX NOE 0110	FactoryCast		
Modicon TSX Micro platform	Modules	TSX ETZ 410		—	
		TSX ETZ 510	FactoryCast		
Inductel identification station		XGK S1715503		—	
FactoryCast Web Gateway		TSX ETG 10●0	FactoryCast		
FactoryCast HMI Web Gateway		TSX ETG 30●●	FactoryCast		FactoryCast HMI

(2) Class D20 for TSX ETG 30●●