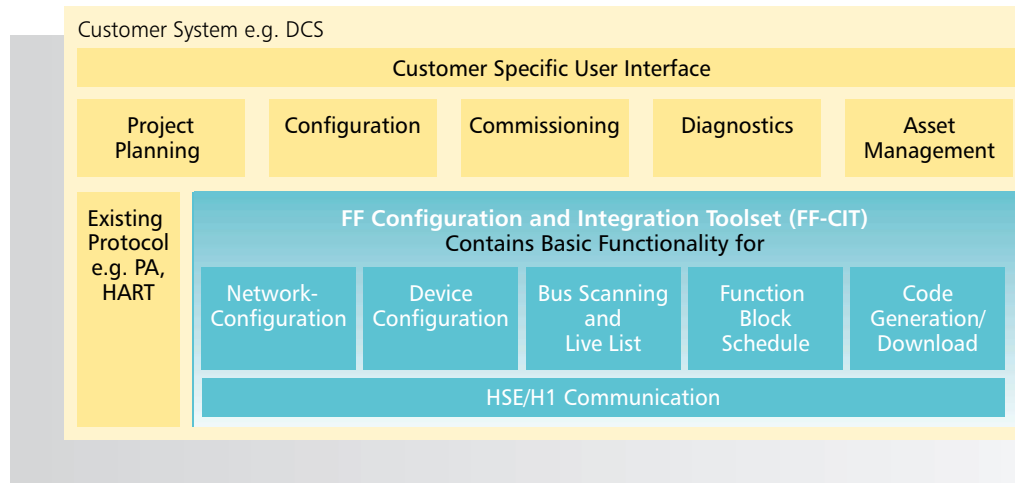




FF-CIT

FOUNDATION™ Fieldbus Configuration and Integration Toolset



FOUNDATION™ Fieldbus Becomes More Important

Worldwide FOUNDATION™ fieldbus (FF) is significantly gaining in importance. In industry sectors like oil, gas, chemistry etc. more and more traditional 4 - 20 mA wiring is being replaced by the open, digital fieldbus. The reasons for this are advantages like (intrinsically safe) communication and power supply via a common line, distribution of the control tasks to field devices, clocked data transfer, reduced wiring and central engineering with access to H1 networks via FF Linking Devices.

Growing Market Demand for FOUNDATION™ Fieldbus Support

To profit from this growing market, manufacturers are increasingly forced to upgrade their measurement and control systems as well as their devices with FF technology. For system vendors this step normally cannot be performed easily. The complexity and integration density of a process control or configuration system is extremely high. The functionality has been tailored for industry specific tasks with huge investment. These systems cannot be extended by adding independent configuration tools with different user interfaces without a break in the operator guidance and without putting at risk the high investment in the existing product. For this reason software is required which provides the desired functionality, can be optimally

integrated into the existing system architecture and does not need to modify the system's operator guidance. Finally the end user wants the system to keep the same look and feel after the upgrade with FF technology.

Configuration and Integration Toolset Enables Your System for FF

The FOUNDATION™ Fieldbus Configuration and Integration Toolset – FF-CIT - provides powerful basic functionality for the configuration of FOUNDATION™ fieldbus (FF) networks via High Speed Ethernet (HSE). The FF-CIT encapsulates FF specific functionality and eliminates the need to learn and implement all FF details. The FF-CIT is a set of functions which allows the easy integration of FF technology into any DCS engineering tool or PLC configuration software. By making use of Softing's FF-CIT, system vendors and device manufacturers save vast time and costs in the process to extend their products for the parameterization, visualization, programming, controlling, diagnostics, online and offline configuration of FF networks and devices. Access to FF networks and H1 field devices is provided via HSE and FF/HSE Linking Devices.

The FF-CIT can be integrated into any existing configuration tools, diagnostic or commissioning software, OPC server or FDT/DTM applications etc. The functionality is supplied as a modular set of libraries and executables with an open, XML based Application Program Interface (API) for Microsoft Windows. Due to its platform independent architecture, it can easily be ported to other platforms, e.g. Linux.

The FF-CIT is the ideal software

- to enhance your DCS system with FF technology with full reuse of the existing user interfaces
- to extend your engineering tool with powerful FF configuration capabilities
- to create a full featured test software for your FF devices

Remote Online and Offline Configuration with FF-CIT

Systems and tools based on the FF-CIT can configure FF networks and devices offline or online from a remote computer which is connected to the FF network via HSE.

The basic functionality provided by the FF-CIT is for configuration of

- topology and communication parameters of HSE/H1 networks
- the function block schedule in the FF network (HSE and H1)
- Linking Devices, HSE Hosts and H1 devices

The FF-CIT provides functionality to scan HSE/H1 networks, detect all connected devices, request some device information and maintain a live list. An ActiveX control displays the live list with a hierarchical view of the topology and the available devices with bus address, status and device information.

The FF-CIT supports function block handling. Schedules for H1 link master and H1 devices are generated based on general schedule configuration data. A plausibility check of the schedule will be executed. The schedule is displayed in the user interface as a table with device tag, function block tag, start time, duration and cycle time.

Using the graphical editor of the customer system, function blocks, executed in field devices, can be connected on a symbolic level. The resulting function block configuration needs to be saved in an XML file following a FF-CIT schema. According to the configured connections described in the XML file FF-CIT

modules automatically generate the code and download the code to the corresponding devices. FF-CIT modules for the code generation for publisher/subscriber connections provide address resolution for HSE host devices, HSE Linking Devices, HSE and H1 devices. Download is supported for HSE subnets, HSE Linking Devices, H1 links and H1 devices.

The FF-CIT communication modules provide functionality to read and write function block parameters from and to devices, write single parameters and up- and download HSE/H1 configurations via the HSE communication interface.

Leadership from Experience

The new Softing FF Configuration and Integration Toolset helps system and device manufacturers to extend their products by FOUNDATION™ fieldbus and profit from Softing's vast experience in fieldbus technology. The FF-CIT is part of a whole range of Softing fieldbus products and is based on Softing's many years of experience and expertise in providing world class FF protocol stacks and development tools. Encapsulating the complexity of FF technology results in a reduced requirement of FF expert knowledge, easier system integration and faster time-to-market with the final customer product.

Technical Information

Operating systems	Windows 2000 SP4, Windows XP SP1 supported (Linux in preparation)
Language	National language localization
Test support	Configurable error and trace logging system
FF conformance	Host Integration System Test (HIST) requirements (FF-569) supported
Documentation	Installation Guide, Users Guide with sample code, Reference Guide

Fieldbus Foundation and Softing

Softing has been a member of the Fieldbus Foundation since early days. Softing has worked in the specification teams for the H1 and HSE standards. Employees of Softing are members of the FF Technical Steering Committee and of the US, European and Chinese Marketing Committees. More than half of the certified hosts and about half of the FF certified field devices use FF technology from Softing.

Softing AG
 Industrial Automation
 Richard-Reitzner-Allee 6
 85540 Haar, Germany

Phone: +49 (89) 4 56 56-340
 Fax: +49 (89) 4 56 56-399
www.softing.com
 info.automation@softing.com

Softing North America, Inc.
 29 Water Street, Suite 301
 Newburyport, MA 01950

Phone: +1(978) 499 9650
 Fax: +1(978) 499 9654
www.softing.us
 info.usa@softing.com