SuiteLink/FastDDE server enables simultaneous connectivity between FactorySuite applications and industrial devices without the need to use an intermediary software bridge.

SuiteLink / FastDDE Server

Features

- **Includes free of charge in all applicom® and Direct-Link™ packages**

- **A broad range of connectivity options**

- **Fully integrated in FactorySuite and ArchestrA® Environments**

- **Network Diagnostic and Test tools included**

- **Includes DDE and FastDDE protocols**

Description

SuiteLink is Wonderware's communications protocol based on TCP/IP and is designed specifically to meet industrial needs such as data integrity, high throughput and easier diagnostics.

SuiteLink server provides data communication in the Windows® NT environment for peer-to-peer communications between the components of Wonderware FactorySuite.

SuiteLink supports data properties (VTQ) for Value, Time Stamp and Quality which are especially important for alarming, historical archiving and SCADA applications.

Architecture

SuiteLink is a communication protocol designed by Wonderware to enable applications running in the Windows environment to send and receive data. The SuiteLink concept is based on client/server architecture. The server application – **Woodhead PCDDE server** – supplies the data and agrees to respond to requests for data from any interested application. Applications requesting such data are called "clients", Wonderware FactorySuite or Archestra® IAS (Industrial Application Server).

The PCDDE server can be located either on the **local** machine, or on **remote** machines.
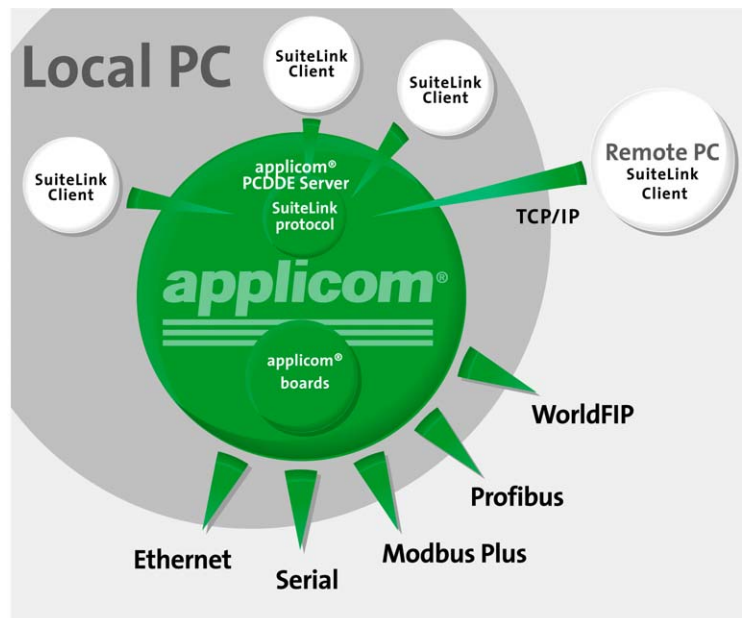
Case of Allen Bradley Logix5000 messaging:
Through the Ethernet applicom® PCU2000ETH card configured with Logix5000 messaging, a Wonderware FactorySuite application (e.g. InTouch, InTrack, etc) can now access to ControlLogix controller by using a new Wonderware I/O server called **WHDDE**. This one comes in addition of the *PCDDE* existing FastDDE/SuiteLink server (WHDDE and PCDDE data servers can be used simultaneously)▲

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Protocols

When you purchase applicom® or Direct-Link™ solutions, the following protocols are included in the package. Depending on the solution used, it is possible to run one or more protocols simultaneously through a single SuiteLink/FastDDE server connection.

Manufacturer	Protocol	Access(1)	
Allen-Bradley	Eth. TCP/IP - **PCCC**	C/S	▪ EtherNet/IP for ControlLogix series ▪ CSP for PLC-5 and SLC 500 series ▪ PLC-5 or Logix5000 through ControlLogix gateway with DH+ and ControlNet interfaces
	EtherNet/IP (I/O messaging)	M/S	▪ CIP based connections (Implicit and Explicit messages) ▪ Generic EtherNet/IP devices supported
	Serial - **DF1 & DF1 to DH / DH+ / DH485**	M, C/S	▪ For PLC-5 and SLC 500 series (programming port) ▪ DH / DH+ / DH485 industrial networks access (through 1170-KF2 or 1170-KF3 from A-B)
Altus	Eth. TCP/IP - **Alnet II**	C/S	▪ For Altus AL200x and Webgate series
CANopen	CANopen	M	▪ All CANopen slave devices with the profiles (DSP 401, DSP 402, DSP 403, WD 404, DSP 406)
DeviceNet	DeviceNet	M/S	▪ Supported devices: "Group 2 Only Server" and "U.C.M.M. capable" equipments
GE Fanuc	Eth. TCP/IP - **SRTP**	C/S	▪ For Alspa 90-30 and 90-70 series
	Serial - **SNP-X**	M	▪ For Alspa 90-20, 90-30 and 90-70 series
Mitsubishi	Eth.TCP/IP - **Melsec**	C/S	▪ For A and Q series
Omron	Eth. TCP/IP - **FINS**	C/S	▪ For Sysmac C, CV and CS series
	Serial - **Sysmac Way**	M	▪ For Omron PLCs
Profibus EN50170	**S7/MPI**	M	▪ For Simatic S7-300 and S7-400 series
	FDL S5	M	▪ For Simatic S5 series
	DP-V0 Class1 & Class 2	**M/S**	▪ All DP compatible devices
	DP-V0 Slave only	S	▪ All DP Master compatible devices
Schneider Electric	Eth. TCP/IP - **Modbus**	C/S	▪ For TSX Premium (57), TSX Quantum series ▪ For all Open Modbus TCP and UDP compatible devices
	Serial - **Modbus ASCII**	M/S	▪ For all Modbus ASCII compatible devices
	Serial - **Modbus RTU**	M/S	▪ For all Modbus/Jbus RTU compatible devices
	Modbus Plus	C/S	▪ For TSX Premium (57), TSX Quantum, Modicon 984 and all MBP devices ▪ Serial Modbus to Modbus Plus routing (PLC programming)
	Eth. TCP/IP - **Uni-TE v2**	C/S	▪ For Premium / Micro (TSX 57/ 37), TSX/PMX PL7-3 (47, 67, 87, 107) via TSX 57
	Ethernet - **Ethway**	C/S	▪ For Premium / Micro (TSX 57/ 37), TSX 17, TSX/PMX (47, 67, 87, 107), April
	WorldFIP - **Fipway**	C/S	▪ For Premium / Micro (TSX 57/ 37), TSX 17, TSX/PMX (47, 67, 87, 107)
	Serial - **Uni-Telway**	C/S, M/S	▪ For Premium / Micro (TSX 57/ 37), TSX 17, TSX/PMX (47, 67, 87, 107)
Siemens	**Industrial Ethernet TCP**	C/S	▪ Siemens S7 messaging for S7-200 / 300 / 400 series ▪ Siemens Read/Write S5 messaging for Simatic S5 series ▪ Siemens CAMP and R/W messaging for Simatic TI-505 series
	Industrial Ethernet ISO	C/S	▪ Siemens S7 messaging for S7-300 / 400 series ▪ Siemens Read/Write S5 messaging for Simatic S5 series ▪ Siemens CAMP and Read/Write messaging for Simatic TI-505 series
	Serial - **PPI / PPI+**	M	▪ For Simatic S7-200 series through console port
	Serial - **3964 / 3964R**	M	▪ Point-to-point protocol with Siemens RK512 (Simatic S7 or S5 series)
	Serial - **AS511**	M	▪ For Simatic S5 PLCs (programming port)
	Serial - **TI-Dir**	M	▪ For Simatic TI-505 PLCs (programming port)
Saïa Burgess	Serial - **SBus**	M	▪ For Saïa PCD series
Moeller Group	Serial - **Sucoma**	M	▪ For PS32 and PS316 series (programming port)
Elsag Bailey	Serial - **DataLink**	M	▪ For DCI regulator from Fisher&Porter, series 2000, 5000 and Supervisor

(1) – **M**: Master - **S**: Slave - **M/S**: Master/Slave - **C/S**: Client/Server

Characteristics

✓ **Topics**
Each DDE topic corresponds to an access path to a group of data. These data could be:
- Device data
- applicom® / Direct-Link™ database data
- applicom® / Direct-Link™ cyclic function parameters
- applicom® / Direct-Link™ interface system data (modem signal, Watchdog).

The topic names are defined automatically depending of the configuration. However, the user can modify them and also define many topics to access to the same path.

✓ **Item Naming**
"Item" designates an item of data within a specific "Topic." In case of access to internal data from a connected device, the PCDDE server uses an "Item" name beginning with an identifier composed of alphabetical characters. The server accepts several types of "Item" descriptors. Each one makes it possible to integrate the manufacturer syntax and address modes for the corresponding device. An "Item" is usually a memory variable such as a **bit**, **byte**, **word**, **bit string**, or **ASCII message**.

For each type of variable (bit, byte, word, etc.) two types of access are available:
- Access to a single variable
- Access to a chain of contiguous variables

✓ **Customization**
For each "Standard Topic" the user may define or customize "Items." This system feature enables the user to assign a specific processing procedure to one or more "Items." The choice is completely optional. If you choose not to use such customization, all "Items" will be handled in standard fashion. The returned values will then be raw data values (exactly as presented by the device).

The various types of processing available are:
- Granularity (Dead band, threshold)
- Minimum limit detection
- Maximum limit detection
- Reporting of significant values where limits are breached
- Conversion (signed/unsigned decimals, BCD, Hex)
- Expression of values as scale percentages
- Linearization of measurement data (ax+b)

✓ **Diagnostic tools**
When debugging your applications, you have the option of displaying a number of counters for a given "Topic" when a client is running. The diagnostic window can be accessed using the PCDDE menu.

For each "Topic," your application can get a local write status through the item (STATUS_WRITE), a local read status through the item (STATUS_READ), and a status combining the two through the item (STATUS). This gives you current information on accessing devices.

Contact us: **www.woodhead.com**