HostLink

The wide-range configurable software gateway solution
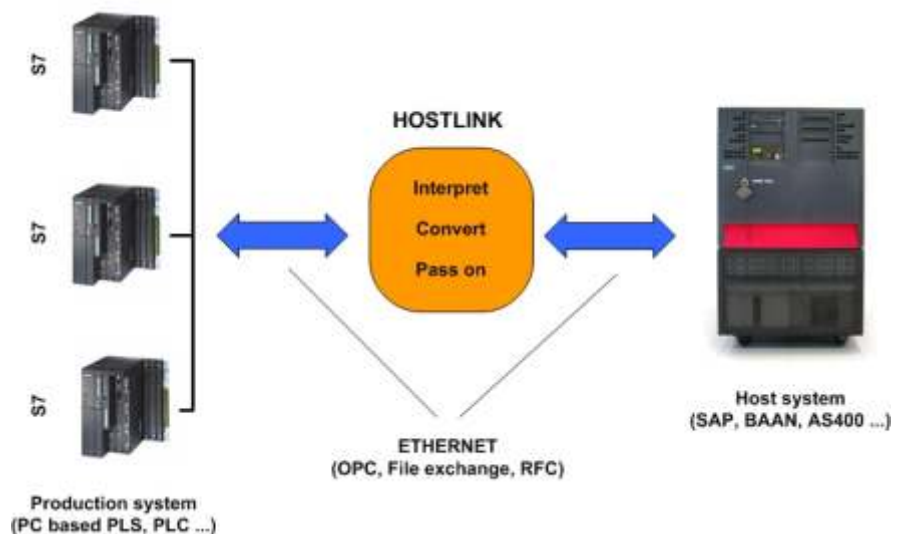
data exchange

configurability

high flexibility

manifoldness

THE INNOVATION

What is a Software Gateway required for?
If a universal interface software is to be used for the connection of control systems to SAP, of MES to ERP, such a software must be very flexible due to the diversity of data types to be exchanged and due to the many different storage variants.

A Software Gateway which can be used as a standard offers a high level of configurability which allows to adjust the tool to many different requirements without any special programming. Via an OPC-interface, it is possible to get a direct connection of the PLC-level to SAP, to a data base or to a file server.

Configurability
The various versions of configuration are stored in definition files. ASCII-files or prewritten queries are thus assigned to the requested table columns. This offers a lot of possibilities for automatic data conversion.

The actual data transmission can be made cyclically according to parameterised time intervals. Furthermore, event-driven, calls to HostLink can be made from other programs. Finally, Host connections can be carried out according to a pre-configured distribution list.

The integrated Script-Engines for VBScript and JScript offer a high degree of freedom as far as configuration is concerned. Thus, it is possible to carry out easy jobs such as application-specific plausibility checks for areas of data validity for example, but also more complex processes with intermediate data base queries or others.

Any special customer requirements can be met by application-specific DLLs via the PlugIn-interface.

Example:
ERP / SAP-connection

A typical use of HostLink is the data exchange with a superordinate Host-computer, e.g. a SAP R3-system. Whereas with other ERP-systems, communication is limited to the exchange of ASCII-files resp. to a data base interface (ODBC, ADO), HostLink together with SAP support the following interface possibilities:
- ASCII-Files
- RFC
- IDoc

Using the Remote Function Calls (RFC) and Intermediate Documents (IDoc) based on RFC, HostLink can operate either in Server mode or in Client mode.

In Server mode, various communication requests are expected by SAP. In general, this operating mode is used for the transmission from SAP to HostLink, like for example, the

transmission of order data and parts lists data, material data, personal data, etc.
Client mode is normally used to send data back to SAP, e.g. order acknowledgements, material consumption data, time bookings, etc. On the opposite side of SAP, the received data can be stored on a relational data base server or simply in the form of ASCII-files on a file server. The other way round, a data base or ASCII-files serve as a data source for the transfer to SAP.

Example:
Use with Kastor

In our batch production system Kastor, a relational data base is used for master data management. According to the defined configuration, HostLink mappes the Host data in the corresponding data base tables and vice versa.

Example:
PLC connection

HostLink can be used in cases where data are to be transferred from a Host system to a PLC or are to be received from PLC, without the communication partners having appropriate ways of communication for this purpose. HostLink has an OPC-interface which is used for the access to an OPC-server. This OPC-server provides the actual connection to the PLC at the bottom level.

Example:
Use with PIAA

The AZO CONTROLS-Plant-Intelligence-System PIAA collects PDA-data from many different peripherals i.a. via Windows CE-terminals with integrated signal collection hardware. The data are collected in ASCII-files which determines the failure concept in case of a missing network connection. If there is a network connection, the ASCII-data are transferred to the Server computer. In this case, too, HostLink is responsible for the mapping of the data into the corresponding table columns of the data base.