

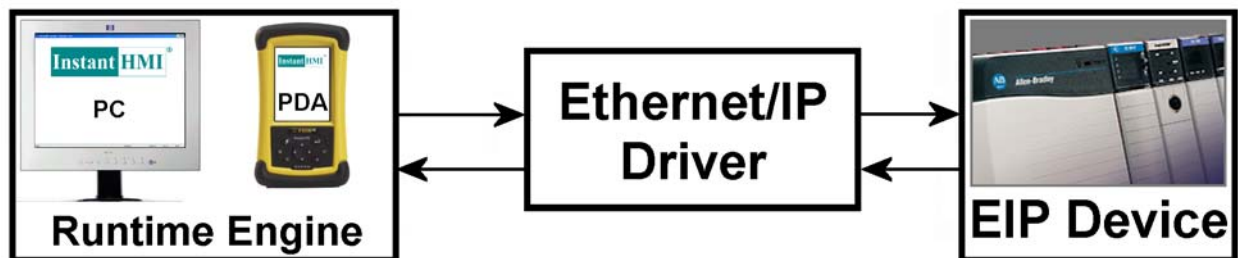
InstantHMI EtherNet/IP Interface

As is well known, TCP/IP is a connection-oriented protocol unlike UDP/IP. EIP uses 'CIP connections' between Application Objects (residing in separate Client/Server IP nodes) over both TCP and UDP transport layers (Layer 4). CIP connection IDs, msg sequence numbering, duplicate message detection etc. are used to maintain dependable message transfer between application nodes.

InstantHMI's EIP implementation uses TCP/IP Sessions (Layer 5) between Client and Server nodes to perform Explicit Messaging using CIP connections between application objects (layer 6 - Presentation, and layer 7 - Application).

EtherNet/IP is an 'Encapsulation Protocol' which carries forward the flavor of TCP/IP (and UDP/IP) very well. The EIP encapsulated message packet transmitted over the Ethernet media (Layer 1 in OSI 7-layer network representation) is embedded in a TCP/IP packet. This packet consists of a 14-byte Ethernet (link Layer 2) header, IP header (usually 20 bytes, Layer 3), TCP header (20 bytes) followed by the EIP encapsulation header (24 bytes), incorporating encapsulation specific data in the Common Packet Format (CPF).

InstantHMI EtherNet/IP interface implementation requires no change in Ladder Logic in ControlLogix PLC or any kind of memory mapping (as with the PCCC Object implementation of EIP driver). This approach can be used to access I/O modules.



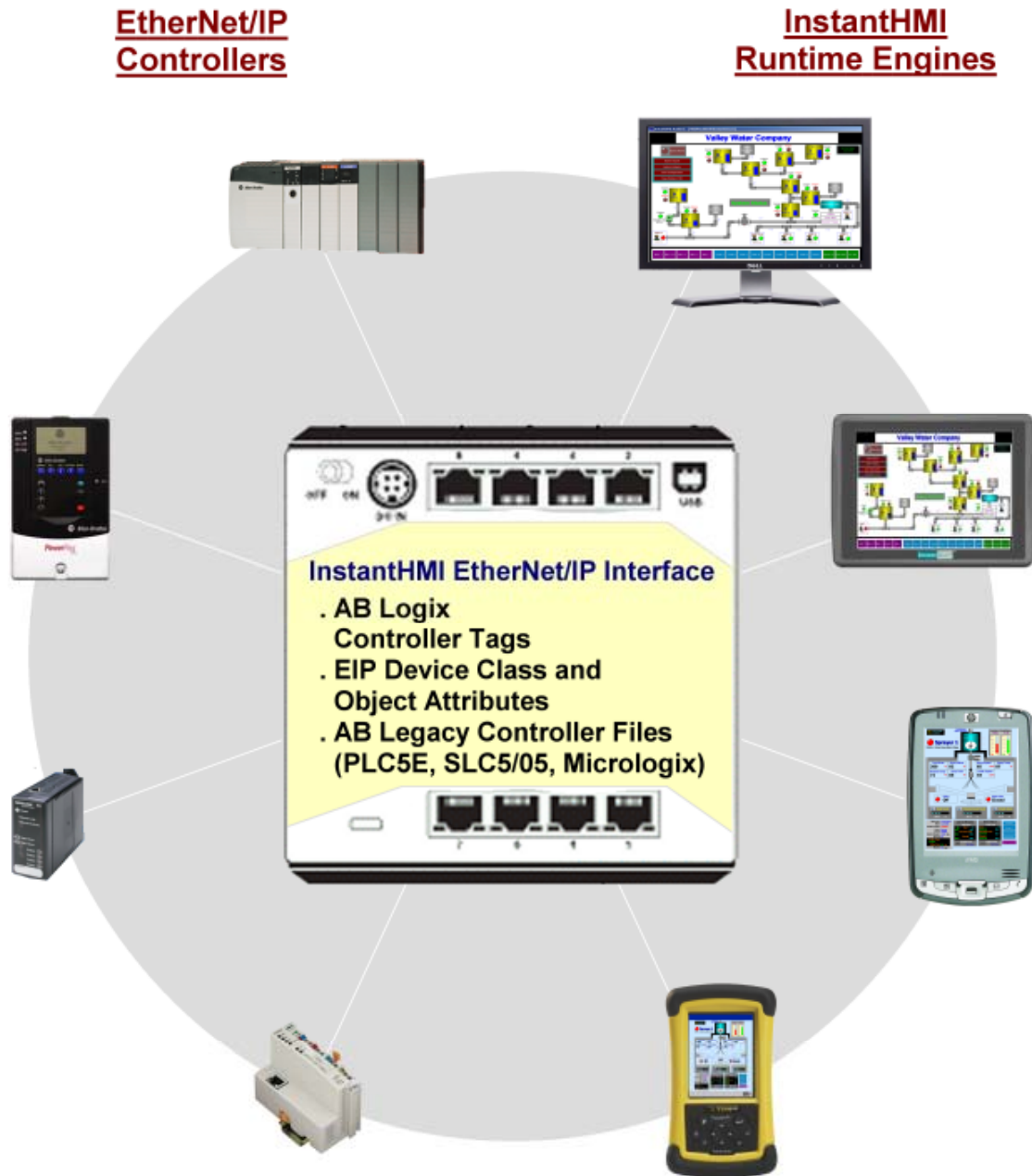
InstantHMI EtherNet/IP Driver Interface

InstantHMI runtime will translate the communication needs of the screen objects and present them to the driver to make a request to the specified EIP device. EtherNet/IP protocol messages encapsulated within TCP/IP are used for the communication between the driver and EIP device. The driver returns the device data in response to the request from runtime, which in turn updates the screen objects.

InstantHMI 4.1 is your multi-platform HMI solution. Install it on Windows PC platforms for a traditional single or multi-node Client/Server HMI setup. For a mobile/wireless solution install it directly on a Windows Mobile PDA or use our InstantChip™ technology to run from a CF/SD card. Use InstantPanel™, our Windows CE color touch system (5.7", 8" and 12.1" screens), for panel mount machine control applications.

See InstantHMI EtherNet/IP Interface in Action : ISA Expo 2006 - Booth 2561

InstantHMI software has been adapted to provide wireless EtherNet/IP, bar coding and RFID interface to EtherNet/IP devices in your choice of platforms (PC, CE Touch Panel, and PDAs).



Software Horizons develops and markets low cost Industrial Human Machine Interface (HMI / SCADA) software and total solutions based on Windows PC, Pocket PC, Palm OS and Windows CE Platforms incorporating the latest technology for wireless connectivity to allow 'Anywhere, Anytime' information access in the field and on the factory floor.

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