



# HOLCON®

### Application:

Smart Sensors, such as vision systems and analytical sensors often need corresponding logic and I/O in order to integrate into an automated system.

The requirements often include:

- Ethernet or other communications connection
- Distributed I/O
- Ability to integrate with existing controls
- Modern programming language - more than relay-logic
- Standards Compliant

Western Reserve Controls Holocon™ Controller fulfills all of these requirements.

### Solution:

WRC's Holocon Controllers are compliant with IEC61499 a new international standard for highly distributed function block controls. It provides an eventdriven mechanism for proper sequencing over multiple device nodes.

It supports real-time function block control, embedded JAVA, CAN, Ethernet, Discrete I/O, analog I/O and RS232.

Programming the W2 controller is via the Function Block Development Kit (FBDK), implementation tools of the IEC61499 standard licensed from Rockwell Automation.

Over 400 function blocks are available to select from as well as a growing library; including network, math, display, and control blocks

For this application of Smart Sensors, the options that would be selected include:

- Ethernet
- Discrete I/O
- Multiple controllers that can be distributed using Ethernet.
- Selection of either W2-FBDK Function Block Development Kit or simply programming in JAVA - or a combination of both.

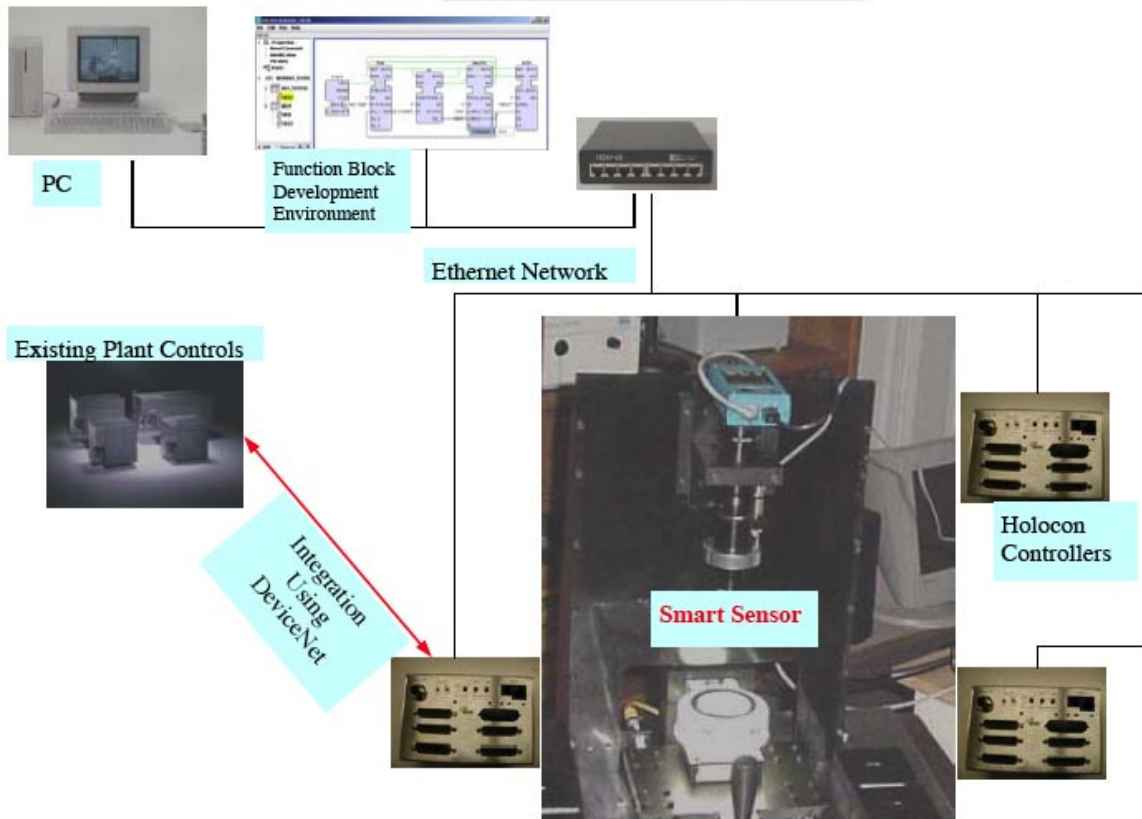
### Benefits:

- Easy to interface using TCP/ IP, XML and/or Function Blocks lowers application engineering costs.
- Common Ethernet networking solution to PCs and other intelligent devices lowers capital costs.
- Optional communication networks such as DeviceNet supports integration with existing controls reduces integration costs.
- Standards compliance simplifies start-up and long-term support lowers total cost.
- Option for embedded web server allows user access via browser - an expensive operator interface software package is not required.
- Robust selection of I/O to meet application requirements.
- Event-Driven processing reduces network traffic, speeds response time, and opens the door for other options such as redundant I/O.
- Graphic Development Environment is intuitive and easy to use - lowering costs.
- Ability to mix Graphical Function Blocks with embedded JAVA expands the range of applications that the Holocon Controller Line is well suited - meaning lower capital costs.
- Verified function block library means shorter development time and expense.



WRC is a Rockwell Automation Encompass Partner for Gateway, Bus Extender and signal conditioning products.

**W2 Series - Holocon Controller  
Smart Sensor Application**



The illustration above displays:

- Multiple, distributed Holocon Controllers providing integrated logic and I/O with a Smart Sensor
- Ethernet networks for common communication within the control system
- Optional communication networks supports integration with existing controls
- Graphical Function Block Development Environment
- PC for other functions including:
  - Data logging
  - Smart Sensor Support
  - Smart Sensor Analysis
  - Operator Interface

The Holocon controllers can be used for:

- I/O functions over Ethernet or Optional DeviceNet
- Optional Add in Function Block Controls for independent operation
- Optional Add in user developed embedded JAVA functions for analysis, data logging, floating point calculations, arrays, or other real-time features.

The Holocon Controller Family is especially attractive to OEMs. With a common platform, customized, real-time, embedded performance is available that is easily interfaced to a wide variety of existing plant controls.

This simplifies the OEMs efforts to service a broad customer base.

Embedded JAVA means that an OEM may develop and implement proprietary, protected technology in the

Holocon Controller that is easily ported to other platforms

Additionally, built in logic and I/O extends the space an OEM can service, thus increasing revenues and maintaining greater control of system performance. IEC 61499 compliance demonstrates the OEMs commitment to fully support and service their customer base.