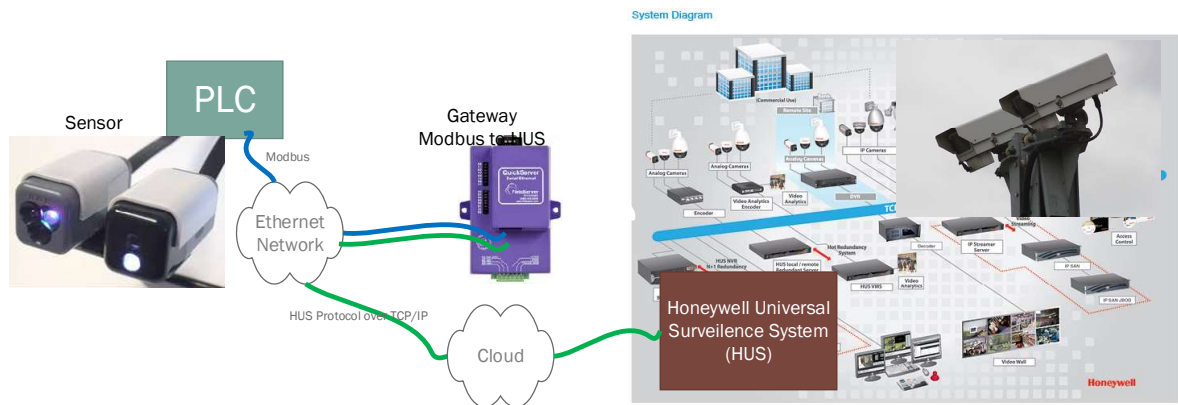


CASE STUDY

Custom Driver Development

**Providing an interface between PLC fault, fire and alarm monitoring system and the CCTV System.
(Honeywell HUS)**



Case Study

Customer needed an integration solution where none existed. Integrating a control system with a CCTV system. Chipkin provided a solution by developing a driver for the Honeywell HUS CCTV system which allows remote systems to operate camera.

The Problem

A Honeywell DCS and Fire&Gas Monitoring system are used to operate and monitor the plant and provide for human safety. A Honeywell CCTV system is being used for monitoring the plant.

Honeywell were unable to provide an interface between the controls and the CCTV system. That is the problem that being solved by this driver. The limitations of the F&G system added a complication to how this interface would be provided since the F&G could not implement the camera priority system required by the site.

In general – the problem can be stated this way – **You need a way of having the control system automatically drive CCTV camera's to specific preset views based on alarms and other control system events.** Obviously, operators can overwrite presets and control the cameras normally, if required.

The Solution

Chipkin developed a driver which allows any protocol to drive camera's to presets based on operation data. For this project the other protocol was ModbusTCP. In fact many other protocols could be used by the driver, including BACnet, Rockwell, GE, Omron, Lonworks and many more.

The solution allows direct control of any camera. Any remote system can, by sending data to the gateway, drive any camera to any preset.

For this project the driver has been configured to use a system of preconfigured actions and priorities to drive the CCTV system. The system provides 64 triggers for 64 preset actions on up to 500 cameras. The actions and what to do if multiple triggers are active for one camera at a time are defined in configuration CSV files.

The Project

A Large Greenfield Refinery with 615,000 bpd Refining Capacity in the Middle East.

Augmenting human operators and improving their productivity with the automatic operation of a CCTV and Surveillance system. Providing an interface which allows the DCS Control System at the Refinery to perform automatic actions on the HUS

This Ethernet Driver allows a Honeywell HUS System to be driven to camera presets based on data sent from an external system. By Linking this driver to other gateway drivers, the HUS system can be driven by Modbus, BACnet, Rockwell, GE, Omron, JCI and many other automation systems.

The Driver supports up to 500 cameras. It can be configured in 2 styles. In one style the interface between the external system is minimal – Each Camera has 64 bits associated with it. Each bit can be configured for a different preset. Now the remote system simply turns bits on/off to drive cameras to presets. In the second style, more control is provided to the remote system – it can not only trigger camera's but it has full control over the preset parameters – they do not need to be configured in advance.

More details available on request..

Commtel Communications



Commtel are all about communication. We create the most conducive environment for multiple networked systems to converse.

Commtel Networks has been in business since 1998 and growing at an average rate of 40% for the past 20 years.

We are a company providing advanced engineering and digital technology solutions focused in Oil & Gas, Power, Transportation, Mining and other related sectors delivering high performance converged communication and surveillance

systems globally.

Commtel builds converged telecommunication networks which are dedicated in nature for voice, video surveillance, data and ethernet traffic over optical fiber, radio or copper links. While designing entire network architecture we remain cognizant of the fact that our systems meet all international standards of operation, are market proven and tested for years, making them ultra-reliable, secure and value for money. Our goal is also to ensure seamless communication between multiple networked systems.

We have innovatively built specialties in the areas of Systems Design, Engineering, Integration, Implementation, Involved Project Management and Multi Location Supply Chain Management as well as a 24x7 support center.

Chipkin Automation Systems

Protocol to protocol – Enabling the IOT Internet of Things

Products that support approx.. 140 major protocols. If we don't have a solution for you we will make you one. More than a dozen customers a year have a custom driver developed for them.

Chipkin are highly regarded for their outstanding support. System integration isn't always trivial even if that is what they tell you.

The Chipkin BACnet stack comes with a 100% copyright infringement indemnity to make corporate lawyers happy. Customers get direct access to the stack developers for coaching and problem solving.

Interface Images



1 - HUS Workstation, camera controlling keyboard.



2 – Hot Standby Pair – Gateways operate in dual redundant / hot standby mode



3 - Honeywell HUS CCTV Server and Recorder.



4 - Security. Tofino routers ensure only Modbus on the Ethernet network between Fire and gas System and the gateways.



5 - Camera's in Explosion proof housing. Not inexpensive.

Keywords

Honeywell HUS interface
Honeywell HUS converter
Honeywell HUS gateway
Honeywell HUS Modbus
Honeywell HUS Rockwell
Honeywell HUS BACnet
Honeywell HUS Protocol
honeywell hus software

HMI drives CCTV cameras
Automatic cctv preset
PLC CCTV interface
DCS CCTV interface
ICS CCTV interface
Make CCTV simple for operators
CCTV automation
CCTV preset control
CCTV automatic operation
Reducing head counts at mines
Reducing operator counts