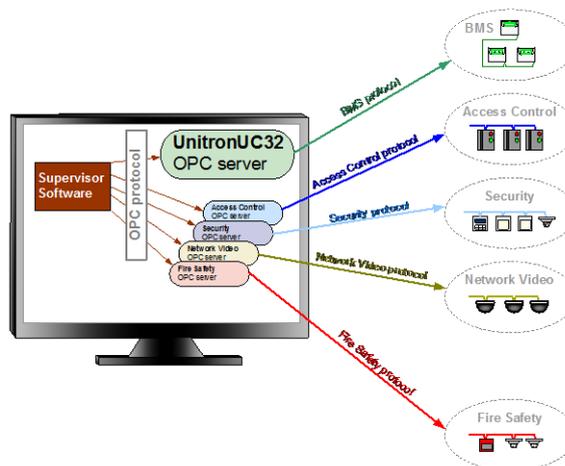


OPC Server

OPC Server suite is a set of applications that allow communication between UnitronUC32 BMS sites and 3rd party devices or software using the standard OPC interface.

It is primarily intended for use with SCADA software supervisors.



Standard Interface

OPC server suite provides Cylon with a standard OPC interface, allowing seamless integration with 3rd party devices.

Point Access

Point values in the UnitronUC32 System can be viewed and manipulated by OPC-compatible devices.

Time Schedule access

UnitronUC32 Time Schedules can be set from an OPC-compatible Supervisor

Automatic Point export

OPC server suite adds functionality to the UnitronUC32 Database Interface so that point data can be transferred easily to SCADA Supervisor packages.

CONTEXT

OPC

What is OPC?

OPC stands for "OLE for Process Control", and provides "open Connectivity" for process automation and control, allowing data transfer between incompatible proprietary systems (e.g. BMS, Fire systems, security system, Process Control systems etc.).

In the OPC system each proprietary system must have an OPC 'Server', which translates between the proprietary protocol and the OPC protocol. On the OPC side of this server, communication is possible with any OPC-compliant system.

In terms of Cylon's UnitronUC32 BMS, the Unitron OPC Servers are principally used to integrate the BMS with SCADA systems (like those from iFix or Movicon) that are already installed in the building that the BMS will control.

What is an OPC Server?

An "OPC Server" exposes data from a proprietary protocol system to a standard OPC protocol system. This allows any OPC Client to read and change data on the proprietary system.

What is an OPC Driver?

"OPC Driver" is synonym for "OPC Server". Because OPC Servers provide communications between OPC and proprietary protocols used by hardware systems, they have been compared to the hardware "drivers" used by Microsoft Windows - for example printer drivers. Using the term "OPC Driver" can help convey what the OPC Server does, but an OPC Driver is not a separate or different piece of software.

What is an OPC Client?

An "OPC Client" is any device (usually a piece of software such as a SCADA Supervisor) to read and change data that has been made available to the OPC system by an OPC Server.

Conceptual differences between UnitronUC32 and OPC

Structure of UnitronUC32 data

In the UnitronUC32 system, point values originate in Field Controllers, which are connected to sensors, switches and equipment throughout the building. Point values are held in the memory of a Field Controller, as part of the controller's 'strategy'.

Field Controllers are networked together to form a Fieldbus, which is controlled by a Communications Controller.

Communications Controllers, each with several Field Controllers on its Fieldbus, are networked together to form a Site.

A Site is the primary element on the UnitronUC32 System, and it contains all other elements.

Structure of OPC data

In OPC, the primary element is called a "Node".

The UnitronUC32 OPC Server acts as a single OPC node, containing any relevant information about all of the sites in the UnitronUC32 system.

The Node corresponds to the UnitronUC32 system.

An OPC Node connects to OPC-compatible devices through one or more "Channels". A Channel can represent a physical connection, such as a serial link (e.g. Modbus RS232) or Ethernet.

In the UnitronUC32 system, each Channel represents the connection between the UnitronUC32 OPC Server and one UnitronUC32 Site.

Each Channel corresponds to a Site.

An OPC Channel contains "Devices".

In the UnitronUC32 system, each Device represents a UC32.netK Communications Controller.

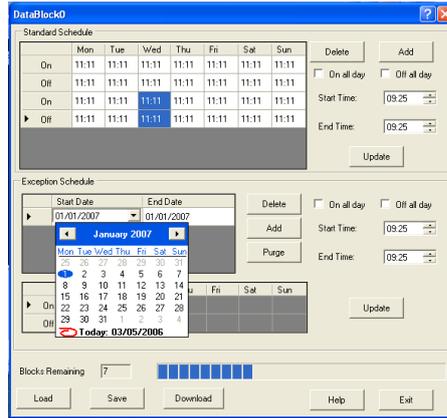
Finally, the actual Point values are held in "Datablocks" within the Devices. Each Datablock holds a number of point values.

In the UnitronUC32 system, each Datablock in a Device can contain a number of point values from a single Field Controller on the fieldbus of the UC32.netK Communications Controller that is acting as the Device

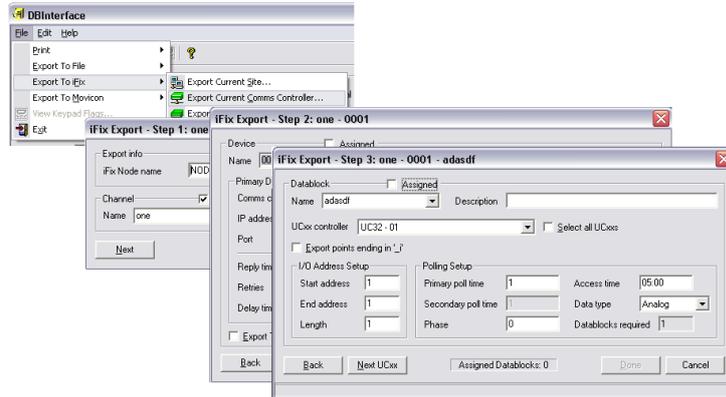
FEATURES

OPC interface	Compatible with v2.05a of OPC Data Access standard
Point Access	Specified points and setpoints within the Untron site are exposed to the OPC system.
Maximum number of points per OPC Datablock	Field Controllers : - 40 contiguous Analog points, or - 100 contiguous Digital points, UCU Field Controllers: - 3 contiguous Analog points, or - 96 contiguous Digital points

Time Schedule Supervision OPC-specific Time Schedule application allows Start and End times to be defined for standard weeks and exception schedules



Automatic Database Export Marked points exported to files targeted at specific SCADA supervisors.



SYSTEM REQUIREMENTS

Server PC	3 GHz Pentium 4 PC or later 512 Mb RAM 20Gb hard drive Operating System Microsoft Windows 7 Professional/Enterprise/Ultimate 64-bit.
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ABOUT UNITRONUC32

Unitron OPC Server is part of the **UnitronUC32** range of products, which offers the following benefits:

Unique Flexibility with UniPut™ I/O

The UnitronUC32 range uniquely presents UniPut I/O, a revolutionary answer to flexible point configuration, offering maximized utilisation of controller capacity along with flexibility in strategy changes. Built on a modern, web-based architecture, the UnitronUC32 range has a wide application scope with the flexibility of being stand-alone or network enabled. Easily customisable, the UnitronUC32 range has optional internal or external keypads for a powerful yet user-friendly interface, matched by extensive monitoring and logging capabilities.

Cost Effective, low entry point for building control.

The UnitronUC32 range offers reduced costs in terms of training, implementation, rollout and maintenance. Modular, extendible packages along with low installation costs mean a low entry point for building control. Advanced web based technology provides expanded facilities for maintenance personnel, while day to day access is offered via intuitive web pages. The future proof UnitronUC32 range provides forward & backward compatibility, meaning an effortless upgrade path for existing Unitron Systems.

Highly programmable and extendable through web enabled HVAC technology

The UnitronUC32 range offers an advanced, web based, 32-bit architecture, with advanced programmability through the UnitronUC32 Engineering Centre. Inbuilt diagnostics along with expanded data logging and strategy storage is further enhanced by UniPut I/O, offering up to 8 Universal inputs, up to 8 UniPut connections (AI/DI/AO/DO) and up to 8 UniPut I/O with relays.