

The Industrial Connectivity Experts



> We help you
succeed with
your solution<



WHO WE ARE

Matrikon is the world's connectivity expert.

We provide connectivity to every major control system and application on the market. We have more than 500 OPC Classic products and have done well over 100,000 installations worldwide. Matrikon extends data connectivity offering from the desktop down to the microcontroller level enabled by OPC UA that have made us a global leader in industrial connectivity!

OUR PEOPLE

At Matrikon, we put a strong emphasis not only on our products, solutions and support for our clients, but also on our staff and technology development. Our developers, engineers and support staff keep current by spending time in real world environments, **solving real world problems** with field tested Matrikon solutions. We invest in our current staff with training and resources and expand our knowledge base by hiring new innovative minds.

SINGLE POINT OF CONTACT

Critical data architectures require engineering expertise during design and implementation. Capable of supporting any companies' global operation, **we have the resources and knowledge** required to solve any opc related problem. No other company has opc implementation services as a core competency. Matrikon is a single point of contact.

OUR MISSION: SUSTAINED CONNECTIVITY

Matrikon is interested in only one thing: solving connectivity problems in the industrial space. Matrikon is the glue that helps hardware vendors deliver true value to customers. Matrikon's philosophy is "you have made the right choice in control systems; now trust us to keep them connected".

INNOVATION

Never a follower, always in the driver's seat, Matrikon is on the forefront of technology innovation. 40% Of revenue from Matrikon is put back into research and development.

Matrikon focuses on delivering technology that solves today's problems and prepares you for the future.

Some innovations:

- The first company to create OPC redundancy
- Matrikon OPC Tunneller: the first viable industrial DCOM replacement
- First to develop OPC guaranteed delivery first company to implement shop floor to the top floor connectivity
- World's most installed OPC DA client application
- World's leader in non Window's OPC connectivity world's first real-time server to server application
- World's first historical data server to server application
- **The only OPC UA SDK tailored to every class of embedded device for maximum performance and with the smallest footprint in the industry.**

THE Matrikon ADVANTAGE

Customers rely on Matrikon because:

- Regardless of the vendor, we will support opc for any client.
- We are **EXPERTS** in OPC technology training.
- We are local in more than 13 countries around the GLOBE.
- We work with all vendors to achieve true interoperability.
- We offer the broadest selection of OPC and OPC UA connections in the market.
- We are leaders in technology innovation.
- We play a key role in the OPC Foundation.

TAKING INTEROPERABILITY TO NEW LEVELS

Matrikon believes true interoperability is achieved through vendor partnerships. We have built such strong relationships with vendors that we are always recommended for projects. Matrikon works on co-certification and interoperability testing of commonly used applications. We take ownership of interoperability.

DRIVING OPC WITHIN THE FOUNDATION



Matrikon has devoted considerable effort in supporting the OPC Foundation and driving the specifications. Some of the notable accomplishments:

- Contributors to the OPC UA specifications
- Chaired OPC UA early adopter group OPC Foundation member of TAC
- Chair – OPC HDA working group developed the VB automation object for OPC HDA
- Developed the first OPC XML Server for OPC Foundation developed the first open O&M connector
- Participated in every North American interoperability workshop

**>At Matrikon, we consider
a project complete only
when our clients see value
and their vision realized<**



OPC SERVERS / CONNECTIVITY SOLUTIONS

IT CONNECTIVITY SUITE	Matrikon IT Connectivity software brings the IT and process control worlds just a little closer with applications designed to help you bridge the gap. The Matrikon IT Connectivity Suite brings industrial strength reliability to your IT network. OPC access to manageable network devices offers functionality that helps industrial users to maintain confidence in the performance of their control system network. • MatrikonOPC IT Connectivity Suite • MatrikonOPC Server for SNMP • MatrikonOPC Server for Microsoft Task Manager • MatrikonOPC SNMP Agent for OPC • OPC IT Health Monitor • MatrikonOPC Messenger • MatrikonOPC Genie (Generic Information Exchange)
PLC CONNECTIVITY SUITE	Are you looking for easy-to-use industrial strength PLC OPC Servers? Matrikon is proud to be able to offer a collection of robust OPC Servers that meet one of the highest levels of quality assurance and testing in the industry today. • MatrikonOPC Server for Allen Bradley PLCs • MatrikonOPC Server for GE Fanuc PLCs • MatrikonOPC Server for Mitsubishi • MatrikonOPC Server for Modbus • MatrikonOPC Server for OMRON • MatrikonOPC Server for RSLinx • MatrikonOPC Server for Schneider UNI-Telway • MatrikonOPC Server for Siemens S5 PLCs • MatrikonOPC Server for Siemens S7 PLCs • MatrikonOPC Server for Siemens SIMATIC TI505 • MatrikonOPC Genie (Generic Information Exchange)
BUILDING AUTOMATION CONNECTIVITY SUITE	As cities rapidly increase in size, the need for the quick and efficient collection of Building Automation Control data becomes critical for making effective business decisions that will lead your enterprise into the future. Matrikon Building Automation OPC Servers allow users to easily consolidate and extract data from geographically disperse locations making your dreams of centralized control stations a reality. • MatrikonOPC Server for BACnet • MatrikonOPC Server for Johnson Controls N1 • MatrikonOPC Server for Johnson Controls N2 • MatrikonOPC Server for LonWorks • MatrikonOPC Server for Schneider Electric PowerLogic SMS • MatrikonOPC Server for SNMP • MatrikonOPC SNMP Agent for OPC • MatrikonOPC Genie (Generic Information Exchange)
WIRELESS-READY OPC SERVER SUITE	Matrikon Wireless OPC Servers are built to be industrial strength and easy to use. Our philosophy on wireless communications is that any product produced by Matrikon must have the ability to provide measurement and diagnostics data for any wireless information system. • MatrikonOPC SCADA Universal Connectivity Server (UCS) • MatrikonOPC Server for Amaco Amocams • MatrikonOPC Server for Bristol Babcock OpenBSI • MatrikonOPC Server for DNP3 • MatrikonOPC Server for IEC 60870-5 • MatrikonOPC Server for IEC 61850 • MatrikonOPC Server for Lufkin Modbus • MatrikonOPC Server for Motorola IP Gateway • MatrikonOPC Server for OMNI Flow Computers • MatrikonOPC Server for ROC/ROC Plus • MatrikonOPC Server for SCADA Modbus • MatrikonOPC Server for SCADA Weatherford CAC • MatrikonOPC Server for Willowglen SCADA DACP • MatrikonOPC Genie (Generic Information Exchange)

DCS CONNECTIVITY SUITE

Are you working with legacy systems? Then you are looking for the Matrikon DCS OPC Server Collection which represents the widest selection of DCS connectivity on the planet. Strong relationships with industry giants like Honeywell, Yokogawa and Siemens have resulted in robust OPC Servers that provide reliable device communications and are easy to integrate.

- MatrikonOPC Server for ABB GCOM
- MatrikonOPC Server for APACS API
- MatrikonOPC Server for APACS Direct
- MatrikonOPC Server for Bailey Direct
- MatrikonOPC Server for Bailey SemAPI
- MatrikonOPC Server for Fisher Provox (CHIP)
- MatrikonOPC Server for Fisher Provox Direct
- MatrikonOPC Server for Foxboro
- MatrikonOPC Server for GE Speedronic Mark V & VI Turbine Controller (GSM)
- MatrikonOPC Server for GE Speedronic Mark V Turbine Controller Direct
- MatrikonOPC Server for GE Speedronic Mark VI Turbine Controller Direct
- MatrikonOPC Server for Honeywell TPS (TDC 3000)
- MatrikonOPC Server for RS3 RNI
- MatrikonOPC Server for Triconex
- MatrikonOPC Server for Triconex Achilles Certified
- MatrikonOPC Server for Triconex HPKS Certified
- MatrikonOPC Server for Valmet DAMATIC XD
- MatrikonOPC Server for Vestas Wind Turbine Controllers
- MatrikonOPC Genie (Generic Information Exchange)

HISTORICAL DATA CONNECTIVITY SUITE

Now more than ever, companies need to depend on their historical data. Emissions control, trend analysis, corporate growth all depend on having the right knowledge at the right time. The Matrikon Historical Data Connectivity Suite of products makes accessing your data a seamless process. Choose from the World's largest collection of OPC HDA Servers to suite your Historical Data Access needs.

- MatrikonOPC Server for Alpha Setcim
- MatrikonOPC Server for Caching
- MatrikonOPC Server for Foxboro DCS
- MatrikonOPC Server for GDA
- MatrikonOPC Server for Honeywell PHD
- MatrikonOPC Server for iHistorian
- MatrikonOPC Server for IP21
- MatrikonOPC Server for Powerlogic SMS
- MatrikonOPC Server for Wonderware InSQL
- MatrikonOPC Server for ODBC
- MatrikonOPC Server for Oracle
- MatrikonOPC Server for Access
- MatrikonOPC Server for Instep eDNA
- MatrikonOPC Server for IMS
- MatrikonOPC Server for Cim/21
- MatrikonOPC Genie (Generic Information Exchange)

MATRIKONOPC TELEMETRY SCADA SERVERS

Matrikon Telemetry SCADA technology is built to be industrial strength and easy to use. Our philosophy on Telemetry SCADA communications is that any product produced by Matrikon must have the ability to deal with extreme communications environments.

- MatrikonOPC Server for Amaco Amocams
- MatrikonOPC Server for Bristol Babcock OpenBSI
- MatrikonOPC Server for DNP3
- MatrikonOPC Server for IEC 60870-5
- MatrikonOPC Server for IEC 61850
- MatrikonOPC Server for Lufkin Modbus
- MatrikonOPC Server for Motorola IP Gateway
- MatrikonOPC Server for OMNI Flow Computers
- MatrikonOPC Server for ROC/ROC Plus
- MatrikonOPC Server for SCADA Modbus
- MatrikonOPC Server for SCADA Weatherford CAC
- MatrikonOPC Server for Willowglen SCADA DACP

OPC UA / IIoT & INDUSTRY 4.0 SOLUTIONS



UA PROXY FOR OPC SERVERS	Matrikon UA Proxy enables classic OPC based client applications to connect with OPC Unified Architecture (UA) servers running on PCs and embedded directly on UA enabled devices. This allows users to integrate UA enabled products into their existing OPC classic infrastructures.
UA WRAPPER FOR COM OPC SERVERS	The Matrikon UA Wrapper for COM OPC Servers enables users to connect to their COM/DCOM based "OPC Classic" servers using the new OPC UA specification. This supported utility wraps COM-based OPC Servers and exposes them as folders in an OPC UA Server's address space.
OPC UA SOFTWARE DEVELOPMENT KIT (SDK)	The OPC UA SDK from Matrikon is a software development kit that allows you to quickly and easily add an OPC UA Server to your embedded product. Our scalable, standards based SDK can be integrated into every class, from discrete sensors and actuators to programmable controllers and beyond. Add real value to your IIoT product by enabling direct point and click configuration, management and monitoring from any OPC UA Client. The OPC UA SDK is an effective solution for deploying IIoT connectivity across your product line.

DATA MANAGEMENT

TUNNELLER	Eliminating the headaches associated with DCOM, Matrikon Tunneller securely connects OPC software right out-of-the-box. For integrators looking to shorten integration time or improve performance, Matrikon Tunneller is the tool of choice. Matrikon Tunneller supports DA, HDA, data compression, encryption, and is extremely easy to install and configure.
DATA MANAGER	Easily share process data between multiple control systems. Matrikon Data Manager enables users to move data between incompatible systems using industry standard OPC. Unlike other vendor's products, Matrikon OPC Data Manager supports multiple OPC specifications like DA, HDA, and A&E as well as featuring redundancy.
SNIFFER	For integrators installing and configuring OPC, Matrikon Sniffer is an objective investigator for troubleshooting OPC client/server interoperability issues. Matrikon Sniffer does away with finger-pointing when OPC servers and clients don't communicate properly. It seamlessly logs the activity between OPC servers and clients to isolate interoperability issues and help solve problems quickly and easily.
REDUNDANCY BROKER	Easily add redundancy capability to any OPC-enabled system. Matrikon Redundancy Broker (ORB) lets you transparently add redundancy to any OPC application. Unlike other utilities that provide redundancy capabilities, ORB provides high performance, is easy to configure, and provides redundancy for both real time and Alarm and Event data.
FUNNEL	Consolidate connections to reduce connection based fees. Matrikon Funnel acts as a gatekeeper to your secure OPC system.
CONDITION MANGER	Matrikon Condition Manager is a powerful calculation engine that enables users to get more value from their automated systems by providing an easy to use platform for the complex calculation of real-time data. Import real-time values from any OPC enabled data source, apply mathematical logic, and then push the values to your control system and any number of OPC applications such as historians, trending and reporting packages.
CACHING SERVER	Easily bridge data between 2 OPC Clients or simulate live systems. Matrikon Caching Server supports the automatic creation of tags upon OPC Client request, making configuration a snap.

ARCHIVING

DESKTOP HISTORIAN	For manufacturers who need to analyze process data, Matrikon Desktop Historian is an affordable, easy to install, data archiving tool. Unlike enterprise process historians that are designed to manage the needs of the entire corporation, Matrikon Desktop Historian focuses on data collection, not data presentation or processing.
MICRO-HISTORIAN	For process engineers, integrators and manufacturers looking for long term storage for up to 100 tags, Matrikon Micro Historian gives you the perfect solution at the right price. Using the same trusted technology as our popular OPC Desktop Historian, OPC Micro-Historian is ideal for storing data from individual PLCs, in small plants, or for simple processes for analysis and reporting.
CLIENT FOR ODBC	The Matrikon Client for ODBC enables any ODBC-compliant database to exchange process data with an OPC Server. Users can easily log data from OPC to their database and write data from their database to OPC without any prior SQL experience. Matrikon Client for ODBC logs process values from an OPC Server to an ODBC Database and populates an OPC Server with data from an ODBC database.
ODBC PROCESS HISTORIAN	Many companies today use ODBC compliant databases, such as SQL Server and Oracle, to store business data. They also have a requirement to store and use process data from the plant floor, lab systems, etc. Matrikon ODBC Process Historian enables users to leverage their existing assets by adding the ability to collect and share data via OPC.
HISTORY LINK	Matrikon History link is the only historical data transfer tool you will ever need. No longer will isolated islands of data plague your operation. A truly flexible and agile tool, Matrikon History Link is for anyone who is currently collecting or storing historical data. This OPC compliant software is a quick and easy way to transfer historical data.
BUFFER	For those who need guaranteed data delivery, Matrikon Buffer is an easy to integrate "store and forward" solution that moves data from any OPC-enabled system to any historian.

EVENT MANAGEMENT

A&E EXPLORER	Built for integrators, developers, and others using Alarms and Events via OPC, Matrikon A&E Explorer is a free utility for testing and troubleshooting OPC A&E servers.
MESSANGER	Matrikon Messenger, enables you to create custom simple OPC A&E events based on real-time OPC process values, and then send email notifications based on the triggered events.
A&E SERVER FOR REAL TIME DATA	The Matrikon A&E Server for OPC Real-time Data provides OPC alarm data for any OPC DA (Data Access) server. Now you can create custom simple OPC A&E events based on real-time OPC process values. Create custom event conditions that fire OPC events. Combine custom event sources to specify precise process condition criteria.
UNIVERSAL A&E SERVER	The Matrikon Alarms & Events (A&E) Server provides real-time OPC alarm data for virtually any legacy alarm-generating system. This product will expose all your alarm printer data using OPC standards based connectivity.
MATRIKONOPC HDA EXPLORER	HDA Explorer is a free stand-alone tool for verifying historical data through HDA, testing HDA OPC Servers, and troubleshooting connectivity to HDA OPC Servers. In the past, the only way to view and test OPC HDA data was to use full blown analysis tools. This utility enables immediate access to HDA data for testing and troubleshooting.

SECURITY

MATRIKONOPC SECURITY GATEWAY	Supporting all vendor compliant OPC servers, Matrikon Security Gateway fills security gaps in any existing OPC architectures. Security Gateway provides configurable access to the OPC architectures and full control for the user. Users can control who can browse, add, read or write per tag.
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REDUNDANCY

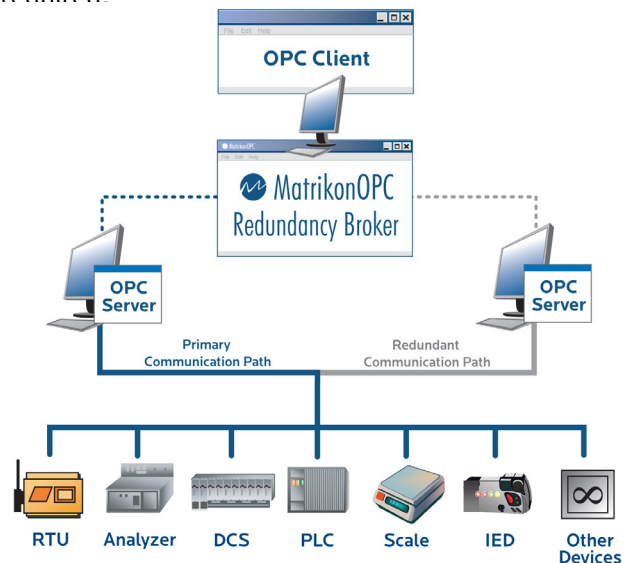
Matrikon OPC Redundancy Broker delivers seamless OPC Server-level redundancy for critical data delivery.

The Matrikon OPC Redundancy Broker (ORB) makes it easy to setup redundant control systems that use OPC connectivity for their data communications. Designed for use in critical applications that require redundant hardware and/or software, ORB sustains reliable communications by eliminating single-points of failure between an OPC Client and any OPC Server. Based on an open standard, OPC, the OPC Redundancy Broker can be easily used in both new and existing installations because it works equally well with all vendors' compliant OPC connectors.

OPC Redundancy Broker constantly monitors a Primary OPC server that is designated by the user. When a failure is detected, OPC Redundancy Broker automatically redirects communications to a Standby OPC server. By intelligently switching between the primary and standby OPC Servers – OPC Redundancy Broker prevents data loss and downtime in the event one of the OPC Servers fails.

Easy Implementation

Setting up the OPC Redundancy Broker is easy. The initial installation only takes a few minutes and the setup of redundant pairs is straightforward as well. An intuitive user interface guides the user in the selection of the primary and standby OPC servers. While default criteria can detect communication failures and force failovers out of the box – additional criteria for defining specific types of server failures can also be customized. ORB works with any OPC Client software. It handles all configuration and fail-over issues automatically! ORB enables easy implementation of a transparent, redundant environment with no programming required.



SECURITY

OPC Security - Providing Data Access on a Need-To-Know Basis

The Matrikon OPC Security Suite provides the essential tools to secure existing OPC architectures. There is no need to replace or disturb any OPC components, regardless of whether they are OPC Security enabled or not. The Matrikon OPC Security Suite is compliant with the OPC Foundation's OPC Security Specification and provides you with the security you need. If your business can be impacted by weak security, we have the tools to harden any OPC architecture. Future-ready and Legacy-friendly.

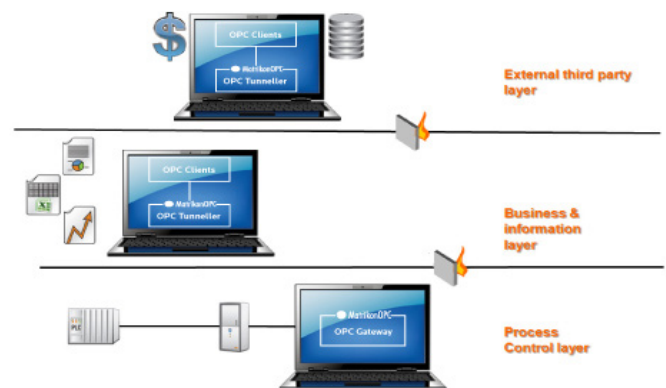
Enabling Products

- **Matrikon OPC Security Gateway**

Supporting all vendor compliant OPC servers, Matrikon OPC Security Gateway fills security gaps in any existing OPC architectures. Security Gateway provides configurable access to the OPC architectures and full control for the user. Users can control who can browse, add, read or write per tag.

- **Matrikon OPC Tunneller**

Eliminating the headaches associated with DCOM, Matrikon OPC Tunneller securely connect OPC software right out-of-the-box. For integrators looking to shorten integration time or improve performance, Matrikon OPC Tunneller is the tool of choice. Matrikon OPC Tunneller supports DA, HDA, data compression, encryption, and is extremely easy to install and configure.



Typical Use Cases of OPC Security Suite

- Support for multiple, same server, redundant pairs
- Support redundancy for DA, A&E, and HDA OPC Servers
- Full OPC HDA support for selected HDA interfaces.
- Status tags enable you to track which OPC Servers are down
- Multiple levels of redundancy (Hot, Warm, and Cold)
- Automatically switches between from primary to standby or vice versa when the criterion of failover is detected.
- Allow "Force a Failover" to manually toggle between the primary to standby or vice versa
- Powerful failover detection engine (trigger failover on item deviation, threshold, rate of change, and quality)
- Windows 32-bit and 64-bit are natively supported.



SECURE NETWORKS

MatrikonOPC DMZ Agent™

Matrikon OPC DMZ Agent™ provides a secure, standardized solution for accessing real-time and archived control automation data across De-Militarized Zones (DMZs) using off the shelf MatrikonOPC products.

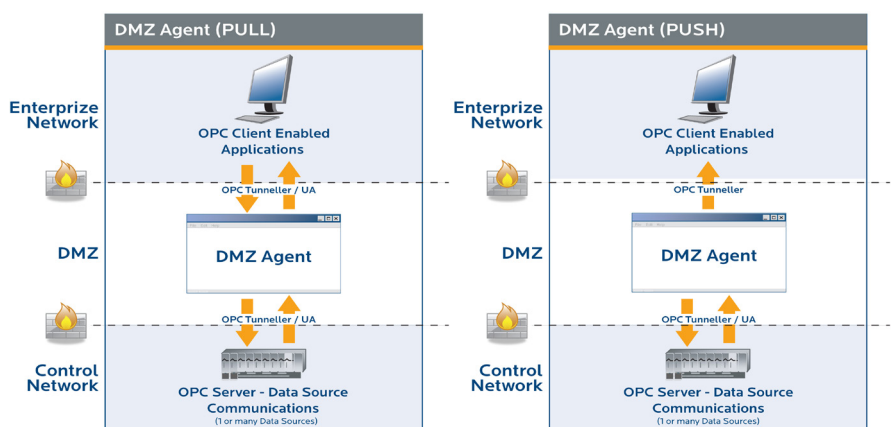
Problem: Corporate IT departments implement DMZs to protect network assets by layering and isolating secure zones from those that are considered less secure. Network traffic is restricted between these layers via multiple firewalls and a common PC between them. While DMZs work to secure the automation environment from the dangers present in the outside world, they prevent necessary operation and business applications from accessing key data and using traditional methods.

Solution: DMZ Agent™ overcomes DMZ related control data sharing issues by providing engineers and system integrators with two time-tested OPC architectures depending on design and corporate security policies.

- **DMZ Agent Pull** solution enables permitted enterprise applications to securely initiate requests for OPC data located within a secure network.
- **DMZ Agent Push** solution allows permitted enterprise applications to receive secure network data pushed from within a DMZ (one way firewall configuration).

Key Benefits:

- Streamlined architecture provides flexible configuration depending on data needs.
- Easy to use, requires minimal configuration and maintenance.
- Eliminates traditional DCOM and firewall issues associated with DMZs
- Provides secure, controlled access to process data.
- Enables access from multiple data sources to multiple users
- Works across multi-layered networks.
- Push architecture provides access to historical data.
- Pull architecture provides access to real time and/or historical data.
- Pushes data to an archive outside the DMZ or allows OPC Clients to pull data from DMZ.
- Integrates with all historians and databases.
- Configurable data encryption.
- OPC UA compatible

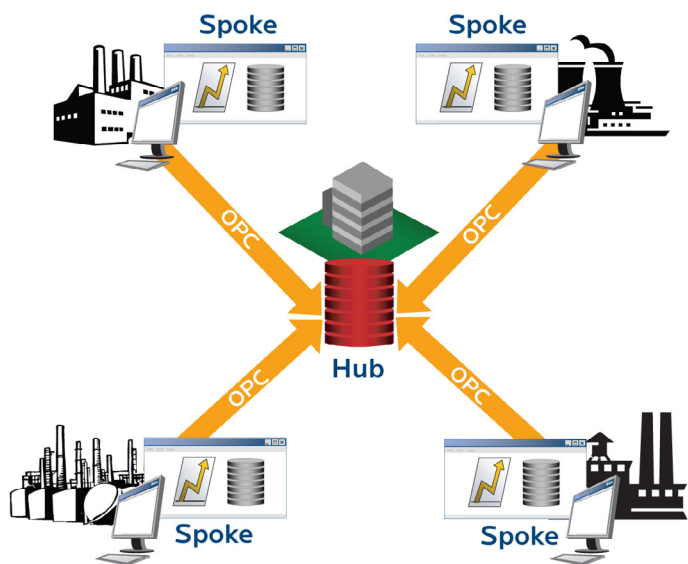


HUB AND SPOKE

Guaranteed Data Delivery

OPC Hub and Spoke solution is designed to solve many individual problems manufacturers are currently facing, including reliability, accuracy, maintainability and affordability of historizing process data. OPC Hub and Spoke is a solution based on a number of individual OPC technologies to reliably transfer process and business data from remote locations to a central repository as well as securely trend and analyze your process data at the source location.

Process Data must be **accurate and accessible, yet secure**. Having unreliable communication channels can severely impact your data integrity. Using **OPC Hub and Spoke** solution, process data can be securely collected and buffered at the data source, and then forwarded to the central historian when the communication is restored, guaranteeing the data delivery and integrity of your process data.



Geographically Dispersed OPC HDA Buffers

OPC Hub and Spoke design is instrumental in creating a standard based solution for the collection and analysis of historical process data. Based on OPC HDA, Historical Data Access is the OPC standard used to exchange archived data, process data can be easily exchanged between an application and any data-archive in a consistent manner. It also enables enterprisewide interoperability as all applications can rely on a single industrial standard that is supported by all key vendors.

Key Benefits

- Guaranteed Data Delivery over unreliable communication lines.
- **Tag level** OPC security to grant and deny access to the archived data.
- Analyze, trend, and buffer your process data at the source.
- Standards based (OPC) for ease of integration with third party layered software.
- Reduce cost of ownership: training, maintenance, capital cost.

Enabling Technologies

- **MatrikonOPC Tunneling Technology**

Matrikon OPC Tunneller provides an easy, reliable and effective way to communicate between networked computers. It does away with the headaches typically associated with the configuration of DCOM. No longer are different protocols, security settings or locations a factor when sharing data between computers. This is achieved by simply installing Matrikon OPC Tunneller on the OPC client and OPC server nodes. From that point it is only a matter of stipulating a computer name or IP address and the port setting.

- **MatrikonOPC HistoryLink**

The Matrikon OPC HistoryLink is built upon the Matrikon OPC Tunnelling technology. HistoryLink enables two OPC HDA capable process historians to share historical data. HistoryLink can move data on an ongoing schedule (ScheduleLink), or be triggered via some process variable (MonitorLink). Historical data management has never been easier. HistoryLink is also iC! Enabled, thus remote configuration is possible.

- **MatrikonOPC Buffer**

MatrikonOPC Buffer is an off the shelf solution for remote data collection, buffering, and with the optional History-Link module; historical data transfer to a central process historian. This product is great for engineers and project managers who need guaranteed data collection and delivery from geographically remote sites.

- **MatrikonOPC Desktop Historian**

For manufacturers that need to analyze process data, the Matrikon OPC Desktop Historian is an affordable, easy to install, easy to configure and easy to administer data archiving tool. Unlike enterprise process historians that are designed to manage the needs of the entire corporation, MatrikonOPC Desktop Historian, an operation process historian, focuses on data collection, not data presentation and processing.



INDUSTRIAL DATA LOGGER

Matrikon Industrial Data Logger

Guaranteed data delivery from remote third party systems.

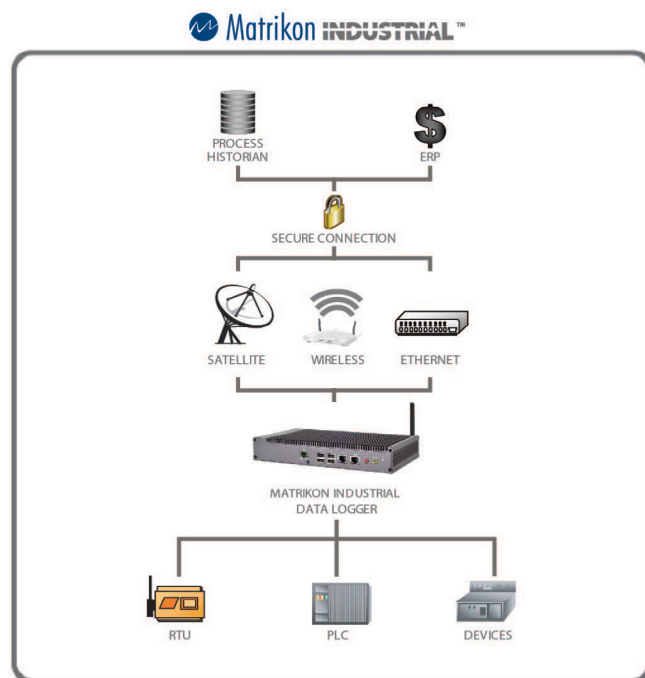
Matrikon Industrial Data Logger collects data from assets and control systems, buffers the data locally to ensure zero data loss then forwards that data to a central location for long term archiving.

Matrikon Data Logger is perfect for those that need or want:

- visibility into equipment or process conditions;
- the freedom to view complete, up-to-date historical data;
- an out-of-the-box solution with easy third party device connectivity;
- access to data locally or remotely;
- an open standards based system to future proof their architectures;
- to capture data for regulatory purposes;
- an open standards based system to future proof their architecture.

Universal Device Connectivity

Matrikon Data Logger connects to third party devices regardless of what vendor they are from. With support for multiple data connectivity protocols, Matrikon Data Logger easily communicates with legacy and modern data sources alike.



Different models of this device are available to connect to many different device families. The different models that are available include:

- PLC Data Logger
- Building Automation Data Logger
- Power Data Logger
- SCADA Data Logger

On-Board Archiving Provides Local Access to Historical Data

Matrikon Data Logger continuously collects and stores data to its local drive and makes it available locally remotely. This ability to capture data at-the-source ensures that even if the LAN or WAN goes down, the Matrikon Data Logger continues to capture data without interruption. When network connections are restored, Matrikon Data Logger automatically transfers missing data to head office.

Assured Data Delivery

Matrikon Data Logger continually buffers data so no data is lost when network connectivity is lost with the central data repository. When network connectivity is restored, Data Logger resumes forwarding archived data to the central repository starting from the time when the connection was lost. Data Logger sends the data in chunks and only deletes its local copy when it verifies the data was received on the other side.

WAN and Internet

Data sent by the Matrikon Data Logger is encrypted and compressed for maximum security. In addition, the Data Logger uses OPC Tunneller technology for effortless OPC connectivity across complex IT architectures including, the Internet, over a WAN or across firewalls.

Direct Historian or Database Connectivity

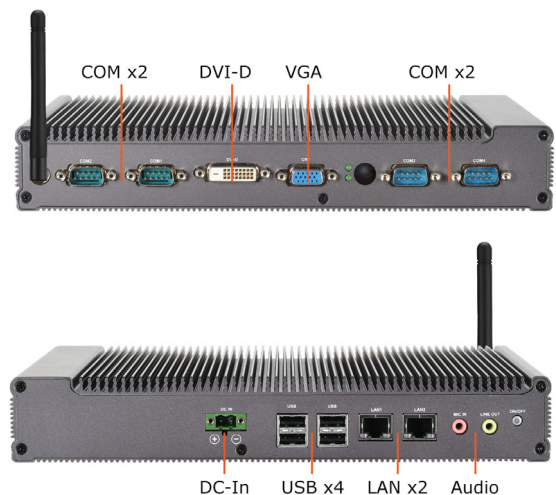
Matrikon Data Logger delivers data directly to your central repository. Standard databases, such as Oracle and Microsoft SQL Server are supported, and more commonly, process historians, such as, OSI PI, Aspen's IP.21, Wonderware InSQL/Intouch and many more.

Secure Access Control

Matrikon Data Logger is fully secured from an administrative perspective. Security features include:

- Application white listing used to restrict what application can run;
- All ports are secured;
- User access is fully controlled.

Matrikon Data Logger is ready made for use in systems that must be compliant with NERC CIP and other security requirements.



UA MODBUS GATEWAY

Suitable for remote conditions



Secure and reliable data from remote PLC's and devices.

Matrikon UA Modbus Gateway provides a simple and secure method to gain access to data from RTUs, PLCs, or any other devices that use the MODBUS data protocol. This versatile device is compact and rugged enough for use in applications where space and power are limited and wide ambient temperature swings are possible.

Matrikon UA Modbus Gateway is well suited for challenging situations that include:

- limited power availability in remote conditions;
- remote or unmanned stations that need data collection;
- limited space requiring a compact solution;
- operation in extreme temperatures and/or dusty environments;
- device management without IT involvement;
- minimized cost of maintenance;
- secure data connectivity due to company policy or regulatory requirements.

Universal Device Connectivity

Matrikon UA Modbus Gateway connects to third party Modbus devices regardless of what vendor they are from. With support for multiple Modbus variants, Matrikon UA Modbus Gateway easily integrates all legacy and modern Modbus data sources into the OPC UA architecture.

Complete Remote Management

Once Matrikon UA Modbus Gateways have been installed in the field, they can be completely managed remotely. Everything from configuration changes to firmware updates can be achieved without sending any engineers into the field.



Multiple Communication Options

Modbus RTUs come in many Modbus flavors and hardware connector types. Matrikon UA Modbus Gateway maximizes your connectivity options with Modbus slave device by supporting the following connection types:

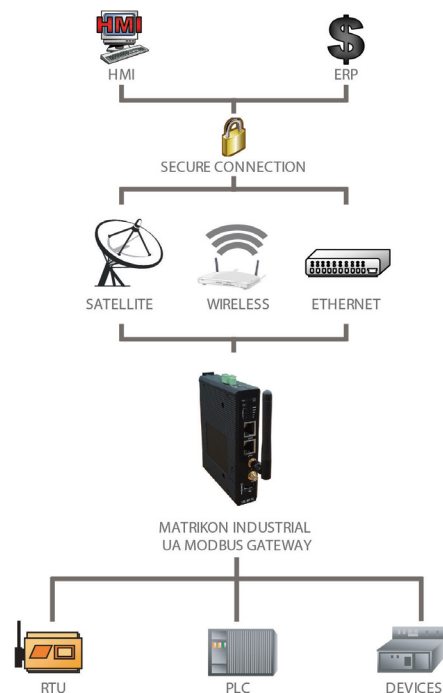
- RTU TCP
- Serial RS232
- Serial RS422
- Serial RS485

Simple Installation – Electricians can do it

Easy to setup and configure, the OPC UA Modbus Gateway can be installed by a field engineer and directly into the field. With a flexible form factor, it can be DIN Rail mounted or directly beside the RTU itself.

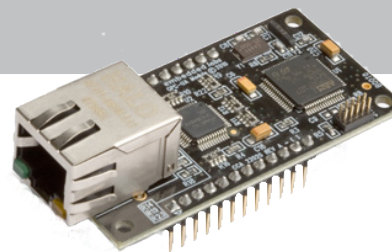
Secure Data Communications

Built on the inherently secure OPC UA standard, Matrikon UA Modbus Gateway provides true data security right down to the Modbus device. When installed and connected to local RTUs, OPC UA Modbus Gateway can encrypt the data as it is sent across the network. This ensures only valid, authorized, users are able to connect to and gain access to data from critical assets.



OPC UA SDK

Matrikon OPC UA Software Development Kit (SDK)



The OPC UA SDK from Matrikon OPC is a software development kit that allows you to quickly and easily add an OPC UA Server to your embedded product. Our scalable, standards based SDK can be integrated into every class, from discrete sensors and actuators to programmable controllers and beyond. Add real value to your product by enabling direct point and click configuration, management and monitoring from any OPC UA Client.

This single product is fully configurable and scalable from microcontrollers with 64kB RAM up to high end embedded systems based on ARM9, ARM Cortex-Ax and x86 based processors such as the Intel Atom. The product can be optimized for minimum RAM and FLASH utilization or for large data sets and multiple concurrent client connections.

Key Features

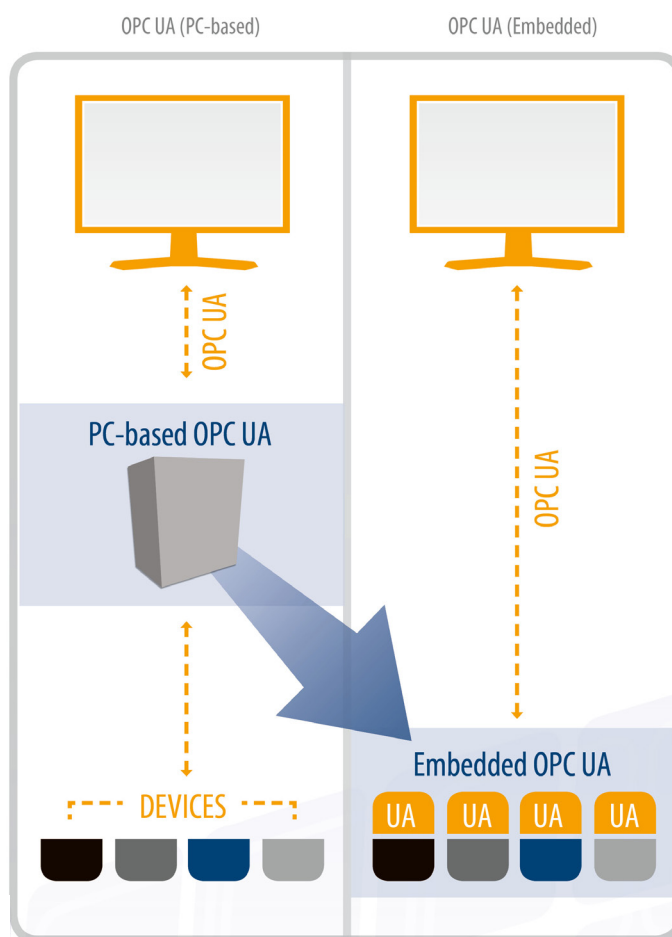
- RAM based Address Space that can be fully reconfigured on-the-fly.
- Simple single ANSI C API implementation.
- The number of sessions, subscriptions, monitored items and address space nodes supported is solely dependent on your available target resources.
- Designed with proprietary memory model . No heap based memory allocation is used to ensure maximum reliability.

Benefits of MatrikonOPC OPC UA Embedded Server SDK

- Robust, scalable solutions developed from first principles for embedded systems.
- ANSI C linkable multiplatform software that runs on any OS or RTOS or even on bare-metal systems.
- Supports the smallest RAM footprint in the industry and scales from 64kB microcontrollers up to ARM9, Intel Atom and beyond.
- Incredibly easy to use with prototype development in days, not weeks or months.
- Runs very fast with minimum CPU utilization.

MatrikonOPC OPC UA Embedded Server SDK Evaluation Kit

The OPC UA Embedded Server SDK Evaluation Kit from MatrikonOPC allows you to evaluate MatrikonOPC UA Embedded Server SDK purchase or install any development tools on your PC. The Evaluation Kit is based on an NXP LPC4088 ARM Cortex-M4F development board from Embedded Artists.



HANDS ON TRAINING

Matrikon OPC is the world's leading OPC training and educational resource provider. From its global, multilingual, hands-on OPC workshops to self-directed web based courses – Matrikon OPC has OPC training options to suit industry's needs. Known for its pragmatic "Learn from those who do" approach, Matrikon OPC offers a unique OPC training experience only instructors with extensive onsite OPC project expertise can deliver. As the most recognized OPC Certification program in the market, Matrikon OPC Training takes their graduate's careers to the next level by distinguishing them as a Matrikon OPC Certified Professional.

Learn the fundamentals of OPC to reduce project risk, reduce implementation time, design and implement effective OPC architectures. Use OPC connectivity for various types of projects including DCS migration, and console replacement.

Practical OPC Training – OPC Classic Fundamentals & Real-World Architectures

Objectives:

- Understand the various OPC specifications including Data Access, Historical Data Access and Alarms & Events.
- Understand how OPC works behind the scene.
- Learn how to use OPC on the old and new operating systems like Windows 7 and Windows 2008.
- Install and configure OPC servers & clients and test OPC connections.
- Understand and work with OPC DA data.
- Understand the inner workings of DCOM and learn how to set or restore an OPC system's DCOM configuration.
- Solve a series of simulated OPC issues.

Practical OPC Training – OPC Unified Architecture (OPC UA)

Objectives:

- Understand the various sections of OPC UA Specifications including Data Access, Historical Access, and Alarms & Conditions.
- Learn how OPC UA works behind the scenes
- Understand OPC UA Security model and Information Modeling.
- Learn Migration strategies from Classic OPC to OPC UA
- Learn how OPC UA works behind the scenes
- Understand OPC UA Security model and Information Modeling.



Visit: OPCtraining.com



Practical OPC Training - Industrial Cyber Security for OPC

Objectives:

- Learn about ICS threats, vulnerabilities and risks
- Learn industry standards and regulations
- Understand the best practices for secure industrial network architecture
- Learn how to design secure network infrastructure for control systems
- Understand operating system security
- Learn how to create secure OPC communications
- Troubleshooting and mitigating security issues

WORK AT YOUR OWN PACE!

Custom Training

Whether you have only a few people or a large number who need OPC training, Matrikon has a variety of standard courses available, ranging from beginner to advanced curriculums. If you have a specific project or need, we can custom-build a course to meet your objectives. We will even design courses around your specific equipment and applications to show you how to interface, troubleshoot and get the most from your assets.

Live MatrikonOPC Webcasts

Online Training Sessions that are designed to be interactive between the presenter and you, the audience. The presenter may share information using a Powerpoint presentation, a demonstration of the software, digital whiteboards or other applications while the audio is heard through a standard telephone line. Have your questions answered as you learn!

Sign up today to get the knowledge and tools to not only work with OPC and OPC UA in any industrial environment but to be your own OPC expert!



GLOBAL PRESENCE

Having a global presence enables Matrikon to react quickly to customer problems in the customer's time zone. Matrikon is the only company in the world **with a depth of engineering knowledge and the expertise in designing** and implementing advanced OPC-centric data architectures anywhere in the world. With offices throughout North America, Australia, Europe and the Middle East, Matrikon's reach is global.



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