

## Matrikon® OPC UA Tunneller™ Datasheet

Take the Guesswork out of OPC UA Migration!

### SUPPORT TOMORROW'S INTERCONNECTIVITY NEEDS WITH WHAT YOU HAVE TODAY

Increased connectivity requirements, along with the rise of the Industrial Internet of Things (IIoT) and Industrie 4.0, have created a challenge for the automation industry to standardize network protocols on more functional and interoperable platforms.

Growing demand for the OPC Foundation's next-generation communication standard, OPC Unified Architecture (OPC UA), is pushing the technology into mainstream adoption. OPC UA breaks down communication barriers stemming from modern data security concerns and a lack of third-party data interoperability.

### PREPARE FOR THE FUTURE WITH OPC CLASSIC-OPC UA INTEGRATION

Automation vendor adoption of OPC UA continues to accelerate in response to industry demand for open, secure, and reliable data connectivity. With this shift, engineers, IT, and System Integrators alike need to properly integrate new OPC UA-based data sources (i.e., devices and applications) into their existing OPC Classic-based architectures. Such integration of OPC Classic assets with OPC UA components is critical because a "rip-and-replace" strategy of existing OPC Classic infrastructure in favor of OPC UA-based technology is not economically feasible.

For the past 10 years, Matrikon® OPC Tunneller™ has delivered a best-in-class solution to eliminate the majority of OPC Classic connectivity problems via a single, easy-to-use package. With Matrikon OPC UA Tunneller, Matrikon continues this legacy while adding powerful functionality to extend the useful life of your OPC Classic components.

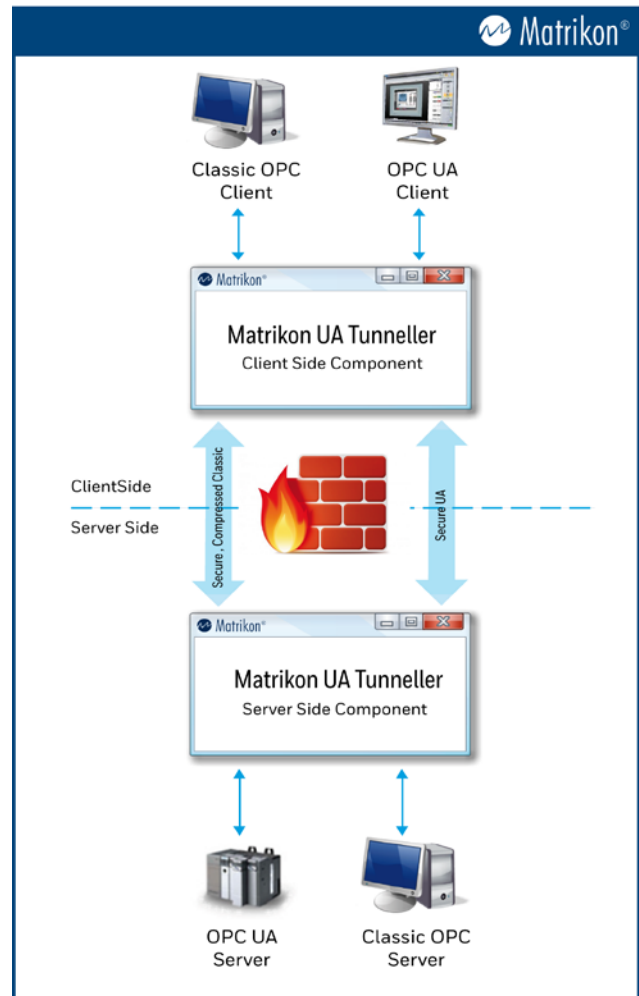


Figure 1 Matrikon OPC UA Tunneller facilitating OPC Classic and OPC UA Interconnectivity

Use Matrikon OPC UA Explorer to extend the productive life of your OPC Classic infrastructure.

### SECURE AND ENHANCE OPC CLASSIC COMMUNICATIONS

Matrikon OPC UA Tunneller maintains the tried-and-true features of the original OPC Classic-focused Tunneller while offering expanded capabilities using a common, user-friendly interface to enable you to get your OPC connectivity up and running quickly.

Matrikon® OPC UA Tunneller addresses the top five issues encountered using OPC Classic components based on Microsoft's Distributed Component Object Model (DCOM). Using this solution will allow you to:

- Eliminate permission issues encountered across domains and workgroups
- Enable OPC Classic data transfer through firewalls by eliminating the use of DCOM
- Compress OPC Classic traffic to reduce bandwidth utilization (compared to DCOM-based traffic)
- Overcome OPC timeout issues and disconnections caused by DCOM
- Encrypt OPC data between OPC Clients and Servers to provide data privacy

Matrikon OPC UA Tunneller is the right choice where secure, reliable connectivity between Classic-to-Classic and/or Classic-to-UA data components is needed.

## Matrikon® OPC UA Tunneller:

### *Optimize All Your OPC Applications*

*Simplify OPC UA migration planning with Matrikon OPC UA Tunneller by seamlessly integrating your OPC UA Clients and Servers with your OPC Classic architecture without replacing existing assets. This makes it easy to add new OPC UA-based components while protecting existing investments and complying with IT best-practices for maximum security.*

## FEATURES & BENEFITS

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### Key Features:

- Seamless OPC data transfer through multiple mediums across geographical locations
- Easy configuration
- Operates in the familiar Microsoft Windows environment
- Smart defaults requiring minimal user knowledge of OPC UA
- 64-bit support for both client-side and server-side connections
- Built using the Flex OPC UA SDK from Matrikon
- Filtering functionality for optimized large tag browsing efficiency
- Ample Status tags for OPC real-time data health monitoring
- DA functionality now available
- OPC UA DA real-time support

### Customer Benefits:

- Allows easy access to OPC Classic sources
- Aligns OPC Classic connectivity with IT best-practices
- Eliminates rip-and-replace of OPC Classic assets

The Encryption feature in Matrikon OPC UA Tunneller™ software enables it to secure your communications from both inside and outside system attacks by hackers. Users are provided with more control over the security of their OPC systems.

The Data Compression feature of Matrikon OPC UA Tunneller™ software allows users to reduce the load on their networks. Data sent over satellite and other per-Megabyte connections can be reduced for significant cost savings. Historical data can be compressed to a size much smaller than the original data, all without any data loss.

**MATRIKON OPC UA TUNNELLER™ SOFTWARE SOLVES 6 MAJOR ISSUES ENCOUNTERED USING OPC OVER DCOM:**

1. Cross Domains and Workgroups

Authentication difficulties make DCOM connections across different domains or workgroups extremely difficult or impossible. Leap past this limitation with OPC UA Tunneller™ software. Essentially, if you can ping the PC, you can get to it with Tunneller.

2. DCOM and OPC through firewalls

DCOM uses a wide variety of ports, making it almost impossible to configure a firewall with. Not to mention, DCOM is a prime target for viruses and worms such as Blaster. OPC UA Tunneller™ software lets us firewall our PC's for maximum security against viruses and worms, yet still allows us all the benefits of OPC.

3. DCOM needs a lot of bandwidth

DCOM works best in environments with low latency and high bandwidth; typical of an office LAN. This causes considerable difficulty when communicating over satellite, modems, radio, and other bandwidth-limited communication types. Matrikon OPC UA Tunneller™ software features lossless data compression, which reduces load on networks and saves cost when paying per MB of data.

Test	Number of Items	Update Rate (sec)	Tunneller Plain vs DCOM	Tunneller Compressed vs DCOM	Tunneller Compressed vs Tunneller Plain
Test1	1000	1	54.84%	12.54%	22.87%
Test2	4000	1	54.93%	12.54%	22.29%

4. Timeouts and Disconnections

Plagued with timeouts? Need recovery faster than the unconfigurable 6 minute timeout that comes with DCOM? Matrikon OPC UA Tunneller™ software has configurable timeouts to work best with your network and reconnects to OPC Servers in a fraction of the time.

5. Data Privacy

OPC UA Tunneller™ software now features data stream encryption. "Man in the middle" type of attacks can now be thwarted, because OPC data is not readable without the key. Encryption can be selected from 64, 96, or 128 bit AES. OPC UA Tunneller™ software can also limit client connections from only the IP addresses you define.

6. Easy Configuration

Depending on your system, configuring DCOM just to the point of getting communication can take days! OPC UA Tunneller™ software reduces your integration time to minutes!

- Install Matrikon OPC UA Tunneller™ software on both the OPC Client and OPC Server nodes
- On the client node, define an IP address or computer name to connect to.
- Start communicating!

Matrikon OPC UA Tunneller makes OPC data connectivity painless regardless of whether you need to connect between different enterprise levels or across the globe.

**FOR MORE INFORMATION, GO TO**  
[www.matrikonopc.com/opc-ua/products/opc-ua-tunneller.aspx](http://www.matrikonopc.com/opc-ua/products/opc-ua-tunneller.aspx)



## GET SETUP QUICKLY AND EASILY

Matrikon OPC UA Tunneller provides an intuitive, user-friendly interface to help you get your Classic-to-Classic OPC connectivity and Classic-to-OPC UA bridging up-and-running quickly and efficiently.

## ROBUST SOLUTION, RELIABLE COMMUNICATION

The OPC UA Tunneller UA-to-Classic Bridge for COM OPC Servers provides OPC UA Clients with access to legacy COM OPC DA and HDA Servers using the OPC UA specifications. The UA-to-Classic Bridge exposes COM OPC Servers as folders in the OPC UA Server's address space and can be configured to host multiple OPC Servers.

Matrikon OPC UA Tunneller helps future-proof your control infrastructure in anticipation of increased utilization of OPC UA. It takes the stress and uncertainty out of deploying new technology and ensuring reliable OPC Classic/OPC UA interoperability and cross-network communications. Greater efficiencies in terms of design, engineering and testing can also be realized.

## PUT THE LATEST TECHNOLOGY TO WORK

Modern industrial operations need to be able to fully leverage their current OPC Classic-based assets. The answer is Matrikon OPC UA Tunneller, which allows OPC UA-enabled client applications to communicate with OPC Classic Servers and Clients, as well as OPC UA Servers and vice versa. For example, a human-machine interface (HMI) that is still utilizing OPC Classic could be adapted to interface with OPC UA devices. As a result, operators are able to remain on their current systems while gaining additional insights and connectivity with UA-enabled equipment as it is added.

## SUPPORTED OPC SPECIFICATIONS

- OPC DA (OPC Data Access) 2.05a
- OPC UA (DA)

## SYSTEM REQUIREMENTS:

### Software Requirements:

- Microsoft Windows 7 (32-bit and 64-bit)
- Microsoft Windows 10 (64-bit)
- Microsoft Windows Server 2008 R2 SP1 (64-bit)
- Microsoft Windows Server 2012 R2 (64-bit)
- Microsoft Windows Server 2016

### Hardware Requirements:

- Intel CORE i5
- 4 GB RAM
- 80 GB 7200 RPM Hard Drive



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