

OPC Toolbox Release Notes

The “OPC Toolbox 1.1 Release Notes” on page 1-1 describe enhancements and bug fixes included in the latest version of the OPC Toolbox. The following topics are discussed in these Release Notes:

- “New Features and Enhancements” on page 1-2
- “Major Bug Fixes” on page 1-4
- “OPC Toolbox 1.1 Installation Notes” on page 1-5
- “Upgrading from a Previous Release” on page 1-6
- “Known Software Problems” on page 1-7

The OPC Toolbox Release Notes also provide information about recent versions of the product, in case you are upgrading from an earlier version:

- “OPC Toolbox 1.0 Release Notes” on page 2-1

Printing the Release Notes

If you would like to print the Release Notes, you can link to a PDF version.

OPC Toolbox 1.1 Release Notes

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OPC Toolbox 1.1 Release Notes

These release notes introduce the OPC Toolbox 1.1 in the following sections:

New Features and Enhancements (p. 1-2)	Provides a list of the new features and major enhancements in this release.
Major Bug Fixes (p. 1-4)	Describes major bug fixes provided by this release.
OPC Toolbox 1.1 Installation Notes (p. 1-5)	Describes installation notes related to the OPC Toolbox.
Upgrading from a Previous Release (p. 1-6)	Describes issues to be aware of when upgrading from Version 1.0.
Known Software Problems (p. 1-7)	Describes problems and issues identified in the product and documentation prior to release, that could not be fixed during this release.

For more information on the OPC Toolbox, see the user documentation for the OPC Toolbox.

New Features and Enhancements

The OPC Toolbox 1.1 includes the following new features and enhancements, added since OPC Toolbox 1.0.

Improved Support for Large Name Spaces

This release provides improved support for servers with large name spaces. Previously, the name space on a server was retrieved in one step, and this would take inordinately long for a very large server. This release allows you to retrieve the name space incrementally, using *browse filters* for the `getnamespace` function. The browse filters allow you to specify a starting point for name space retrieval, and a browse depth, which controls how far “down” the tree you will be retrieving the name space.

This change has resulted in the following changes to behavior from previous versions:

- The `getnamespace` function now returns a hierarchical name space as the default. Previously, the name space was presented as a flat name space, even if the server stored the name space hierarchically. To get the same behavior as in previous versions, you can use the following code:

```
flatnamespace(getnamespace(da))
```
- The `getnamespace` function no longer accepts the 'hierarchical' flag.
- The OPCTool Graphical User Interface now loads the name space incrementally. This allows OPCTool to be used with servers that have large name spaces.
- The **Add Item** dialog for OPCTool has been reimplemented to allow for incremental loading of the server name space. Consequently, the **Available Server Items** list has been replaced by a tree view.

Enhanced Add Item Dialog in OPCTool

The **Add Item** dialog in OPCTool includes the following enhancements:

- You can add multiple items to a group more easily. You can now use the **All below** button to add all items below a particular node to the **Selected server items** list.

- The Available server items list is now a tree view. If an item has already been added to the group, or is selected for addition, the item will appear greyed out in the tree view. This allows you to see, in the context of the name space, which items have been added to the group already.
- If you know the Item ID of the item you wish to add to a group, you can now type that ItemID in the **Enter ItemID(s)** field.

Support for Public Groups

The OPC Data Access Specification provides functionality to allow multiple clients to share group configuration, through the use of *public groups*. One client may configure a group with a number of items, and share that configuration with other clients by making that group public.

This release adds support for public groups to the OPC Toolbox, allowing you to create public groups, connect to existing public groups on a server, and remove public groups from the server.

For additional information on public groups, see “Working with Public Groups” in the “Using OPC Toolbox Objects” chapter of the User’s Guide.

Major Bug Fixes

The OPC Toolbox 1.1 includes several bug fixes made since Version 1.0. This section describes the particularly important Version 1.1 bug fixes.

- `opcreset` no longer removes objects from the OPCTool GUI. An error is generated if you attempt to call `opcreset` while OPCTool is running. You must close OPCTool before you call `opcreset`.
- The `LanguageID` property of a `dagroup` object has been removed. Previous versions of the OPC Toolbox provided this property, but did not use the property at any time.

OPC Toolbox 1.1 Installation Notes

The OPC Toolbox uses the OPC Data Access standard, defined by the OPC Foundation, to connect to OPC servers. As part of that standard, the OPC Foundation produces a standard set of interface files called the OPC Core Components. The Core Components are used by all OPC clients (such as the OPC Toolbox) installed on a computer.

In order to use the OPC Toolbox, you will have to install the OPC Foundation Core Components. Instructions on how to perform this task are provided in the section “Preparing to Use the OPC Toolbox” in the “Introduction” chapter of the OPC Toolbox User’s Guide.

Upgrading from a Previous Release

The following are some changes from previous releases.

- Substantial changes to the `getnamespace` function are noted in “Improved Support for Large Name Spaces” on page 1-2.
- The `LanguageID` property has been removed. This may cause errors in any code that tries to access this property. Removal of this property has no effect on toolbox internal code behavior.
- The OPC Toolbox no longer supports subscribing into OPC Toolbox properties. Previously, using dot-notation referencing allowed you to subscript into properties. This functionality has been removed, as the subscribing operation did not work correctly for all cases. As a workaround, you must first get the property, then use subscribing on that property. For example, instead of using

```
grpName = da.Group.Name;
```

you must now use

```
grp = da.Group;  
grpName = grp.Name;
```

Known Software Problems

OPC Tool Graphical User Interface

OPC Tool might use large amounts of system memory. MATLAB might consume large amounts of memory when the OPC Tool Graphical User Interface is displaying the **Read/Write** panel for a long period of time and automatic updates are enabled via the **Subscribed** check box. As a workaround, during a long OPC Tool session, turn off automatic updates and perform manual read operations.

Hyperthreading

Hyperthreading might cause crash. On a machine that supports hyperthreading, it is possible that the OPC Toolbox can crash MATLAB. This has only been seen when hyperthreading has been enabled, and when performing DataChange callbacks very quickly (less than 0.5 seconds). The workaround is to disable hyperthreading, or ensure that the UpdateRate of a group is set to greater than 1 second.

OPC Toolbox 1.0 Release Notes

These release notes introduce the OPC Toolbox 1.0 in the following sections:

Introduction (p. 2-2)

Provides a brief overview of the OPC Toolbox.

For more information on the OPC Toolbox, see the user documentation for the OPC Toolbox.

Introduction

This section describes the capabilities of the OPC Toolbox 1.0.

The OPC Toolbox is a collection of M-file functions and MEX-file dynamic link libraries (DLLs) built on the MATLAB[®] technical computing environment. The OPC Toolbox allows you to connect to an OPC server directly from MATLAB and gather plant information and log data, so that you can perform analysis in MATLAB and write values back to the OPC server from MATLAB. The OPC Toolbox also allows you to log data to disk and memory, so that you can get a history or time series of data to analyze and process in MATLAB.

The toolbox provides you with these main features:

- A framework for interacting with one or more OPC servers directly from MATLAB.
- Compliance with the OPC Foundation Data Access Standard, version 2.05a.
- Event-driven interaction with OPC servers.
- An object-oriented hierarchical structure for managing connections to OPC servers, creating and interacting with groups of OPC server items (also known as tags), and communicating with servers in a flexible and efficient way.
- The ability to log data from OPC Data Access servers without the need for Historical Data Access support on the OPC Server.
- An intuitive graphical user interface (GUI) for browsing OPC servers, creating OPC Toolbox objects, and initiating logging tasks.

For more information on OPC, and particularly the capabilities of the OPC Toolbox 1.0, consult the documentation on the OPC Toolbox.