

**The OPC Server Simulator
PRINTED MANUAL**

OPC Server Simulator

©2006-2025 AGG Software

All rights reserved. No parts of this work may be reproduced in any form or by any means - graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems - without the written permission of the publisher.

Products that are referred to in this document may be either trademarks and/or registered trademarks of the respective owners. The publisher and the author make no claim to these trademarks.

While every precaution has been taken in the preparation of this document, the publisher and the author assume no responsibility for errors or omissions, or for damages resulting from the use of information contained in this document or from the use of programs and source code that may accompany it. In no event shall the publisher and the author be liable for any loss of profit or any other commercial damage caused or alleged to have been caused directly or indirectly by this document.

Printed: 27.03.2025

Publisher

AGG Software

Production

©2006-2025 AGG Software

<https://www.aggsoft.com>

Table of Contents

Part 1 Introduction	1
Part 2 License and technical support	1
1 License	1
2 Support	2
Part 3 Installation	2
1 System requirements	2
2 Installation process	2
Part 4 Using the program	3

1 Introduction

This free and simple OPC DA2 server allows you to add multiple OPC tags and specify their names, data types, and values. Tag values can be updated from time to time. For numeric data types, the server can use several built-in functions to generate random values.

You can interactively change tag values and their quality. You can monitor the connected clients and the data requested by them.

This OPC server allows you to quickly test your or our software that works with OPC. For the duration of the test, it can replace the OPC server that works with the real hardware. Possibly, this simple server will start much faster than any other server of yours, which could allow you to do your development and initial tests in less time.

Key features:

- You can add variables with different data types and simulation modes.
- You can see all settings of the program in one window, which allows you to quickly change any parameter.
- You can save all server settings and the OPC tags list to a file, and then load them from that file.
- The program supports different data types for OPC tags.
- Any tag value or all tag values can be updated by timer.

2 License and technical support

2.1 License

Copyright © 1999-2025 AGG Software.
All Rights Reserved

FREE EDITION Version

The free edition version of this software may be used for your purposes at the user's own risk for an unlimited period. The free edition version may be freely distributed, provided the distribution package is not modified. No person or company may charge a fee for the distribution of OPC Server Simulator without written permission from the copyright holder.

Whilst every care has been taken in the construction and testing of this software, it is supplied subject to the condition that the user undertakes to evaluate the suitability of the control for his/her purposes. AGG Software makes no representation of the software's suitability for any purpose, and the user agrees that AGG Software has no responsibility for any loss or damage occasioned by the use of this software.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE SOFTWARE AND DOCUMENTATION ARE PROVIDED "AS IS" AND AGG SOFTWARE DISCLAIMS ALL OTHER WARRANTIES AND CONDITIONS, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, CONFORMANCE WITH DESCRIPTION, TITLE AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL AGG SOFTWARE BE LIABLE FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL OR EXEMPLARY DAMAGES OR LOST PROFITS WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF BUSINESS INFORMATION, OR ANY OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OR INABILITY TO USE THE SOFTWARE PRODUCT, EVEN IF AGG SOFTWARE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. IN ANY CASE, AGG SOFTWARE'S CUMULATIVE AND ENTIRE LIABILITY TO YOU OR ANY OTHER PARTY FOR ANY LOSS OR DAMAGES RESULTING FROM ANY CLAIMS, DEMANDS OR ACTIONS ARISING OUT OF OR RELATING TO THIS AGREEMENT SHALL NOT EXCEED THE PURCHASE PRICE PAID FOR THIS LICENSE.

Should any term of these terms and conditions be declared void or unenforceable by any court of competent jurisdiction, such declaration shall have no effect on the remaining terms hereof.

If you do not agree to these conditions you should not install this software.

2.2 Support

Technical questions Common questions Sales questions	https://www.aggsoft.com/support/
--	---

3 Installation

3.1 System requirements

Windows 2000 Professional - Windows 11, including x64 and x86 OS, Workstation and Server OS.

It is necessary to have at least one free COM port, not busy by any device (mouse, for example) to connect external device.

3.2 Installation process

If any beta-version was installed on your computer, remove it.

Quit of the working OPC Server Simulator on installation time.

Run an installation file.

By default, OPC Server Simulator will be installed to the directory "/Programs Files/OPC Server Simulator" of your system disk, but you can change this path.

In the standard distributive of OPC Server Simulator are no additional modules files, which you can download from our [site](#).

4 Using the program

When you launch the program, you will see the following window:

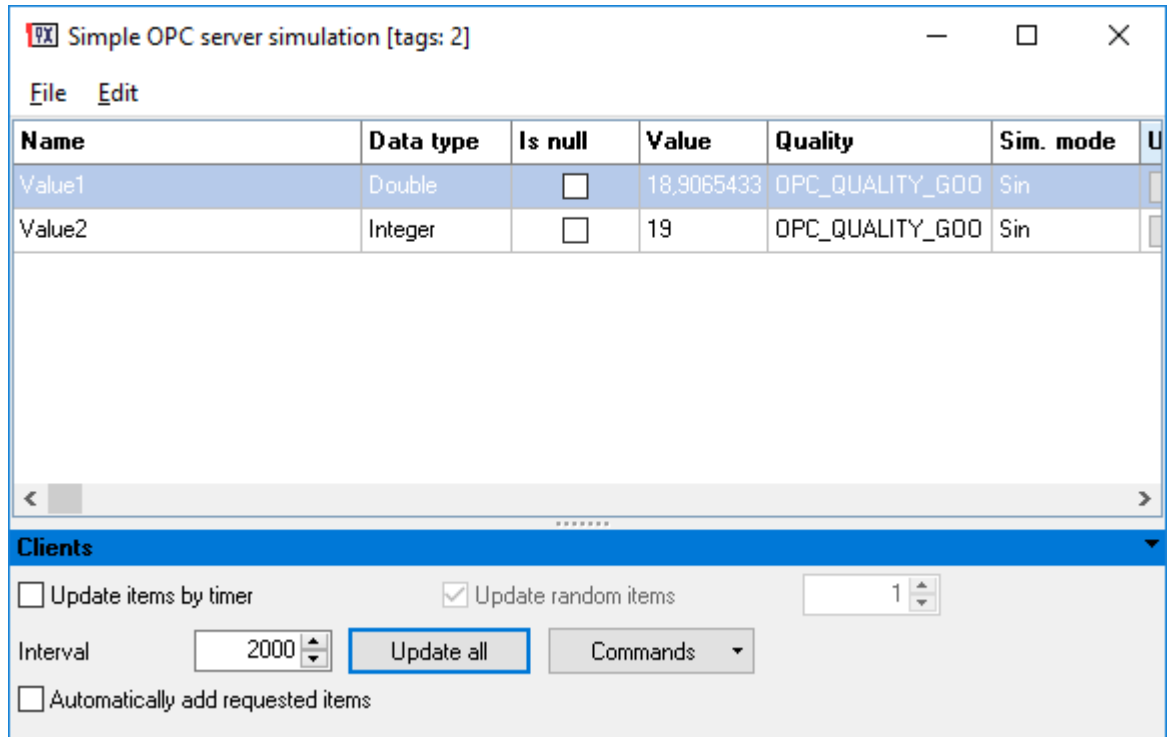


Figure 1: The main window

The program is very easy to use:

1. Add as many tags as needed to the list via the "Edit" menu.
2. Start the automatic update timer, or click the "Update" button when necessary.

OPC tag parameters

Name - The OPC tag name. The dot character is used as a path delimiter. For example, the "TA7.COMMON.Time" tag name sets the following data tree hierarchy:

```
TA7
|--- COMMON
|    |---- Time
```

Data type - The OPC tag data type.

Is null - If this option is turned on, the value is unspecified (indeterminate).

Value - The tag value. If the "Is null" option is turned on, the value is ignored.

Quality - The OPC value quality. You can use one of the following values defined in the OPC standard:

- GOOD - Good quality (the variable value is defined).
- UNCERTAIN - Uncertain quality (the variable value is unknown).
- BAD - Bad quality (the variable value is known, but unreliable).

Sim. mode - You can use one of the following simulation modes.

- None - A fixed value.
- Random - A random value.
- Sine - A sine value.
- Sawtooth 1 - A sawtooth value (Option 1).
- Sawtooth 2 - A sawtooth value (Option 2).

If you selected the "String" data type for the OPC tag, you can use these additional simulation types:

- ASCII - ASCII characters only.
- Latin - Latin characters only.
- Latin lower - Lowercase Latin characters only.
- Latin upper - Uppercase Latin characters only.

Update - Click the button in the column to update the value for the respective OPC tag.

Options

Update items by timer - If this option is turned on, the server will periodically update all values or random values in the list.

Interval - The time interval to update values by timer (in milliseconds).

Update random items - If this option is turned on, the server will periodically update only the specified number of random values in the list.

Update all - Updates all values in the list.

Automatically add requested items - If this option is turned on, each time an OPC client requests a non-existing tag, the tag will be added to the list. Otherwise, the server will return the error code to the OPC client.