

**The DDE Server plugin  
PRINTED MANUAL**

# DDE Server plugin

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## 1 Introduction

The "DDE server" data export module for our software (for example, Advanced Serial Data Logger) is designed to send information received and singled out from the data flow by the parser to other programs using the Dynamic Data Exchange (DDE) technology. The data export module runs as a server. It means that data read access for each variable received from the parser is provided. With this data export module, you can use data received from the port of a Microsoft Office application or your own software. This module has the following features:

1. It is possible to simultaneously send several variables set up on the configuration stage. Separate export parameters can be specified for each variable;
2. In case real numbers are sent, the user can specify custom formats of data representation;
3. While using the program, you can monitor the values of the variables being exported in the module configuration window;
4. All parameters are saved and restored automatically.

These features allow you to:

- Get data from a port and process it in real time supporting Dynamic Data Exchange (DDE). Thus, this information can be used in other office applications supporting DDE, for example, Microsoft Excel;
- While using Microsoft Excel, get messages ready for printing, for sending over the Internet or by e-mail;
- Quickly and effectively analyze statistical data.

All these tasks will be completed in the most comfortable and easy way due to the thought-out and multiple features of the module!

## 2 System requirements

The following requirements must be met for "DDE Server" to be installed:

**Operating system:** Windows 2000 SP4 and above, including both x86 and x64 workstations and servers. A latest service pack for the corresponding OS is required.

**Free disk space:** Not less than 5 MB of free disk space is recommended.

**Special access requirements:** You should log on as a user with Administrator rights in order to install this module.

The main application (core) must be installed, for example, Advanced Serial Data Logger.

### Notes for Microsoft Vista and above:

Since our software saves data to the registry and installs to the Program Files folder, the following requirements must be met:

1. You need Administrator rights to run and install our software
2. The shortcut icon of our software will be located on the desktop;
3. Windows Vista will ask for your confirmation to continue the installation.

NOTE: You can configure the user account only once in order not to see the above dialog box any more. Search Google for the solution of this problem.

### 3 Installing DDE Server

1. Close the main application (for example, Advanced Serial Data Logger) if it is running;
2. Copy the program to your hard drive;
3. Run the module installation file with a double click on the file name in Windows Explorer;
4. Follow the instructions of the installation software. Usually, it is enough just to click the "Next" button several times;
5. Start the main application. The name of the module will appear on the "Modules" tab of the "Settings" window if it is successfully installed.

If the module is compatible with the program, its name and version will be displayed in the module list. You can see examples of installed modules on fig.1-2. Some types of modules require additional configuration. To do it, just select a module from the list and click the "Setup" button next to the list. The configuration of the module is described below.

You can see some types of modules on the "Log file" tab. To configure such a module, you should select it from the "File type" list and click the "Advanced" button.

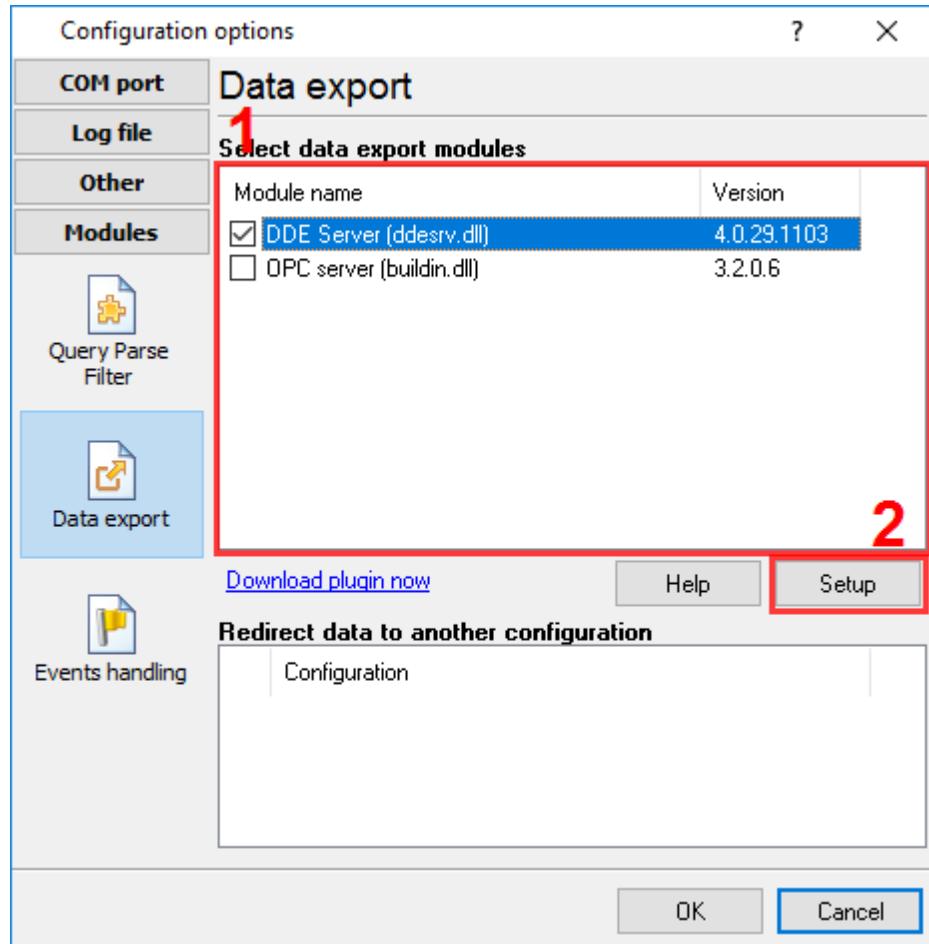


Fig.1. Example of installed module

## 4 Glossary

**Plug-in** - module

**Main program** – the program shell that uses this module. For example: Advanced Serial Data Logger

**Parser** – the module that processes the data flow singling out data packets from it and variables from data packets. These variables are used in data export modules after that.

**Core** - see "Main program".

## 5 User Manual

### 5.1 Connecting other programs to the server

For the data export module to run as a server sending data to other applications, you should establish a connection to the server in your application. To establish a connection to the server, you should specify two connection parameters: server name and group name. To get these values, open the module configuration window:

1. Start the main application (for example, Advanced Serial Data Logger) if it is not yet running;
2. Open the "Modules" tab in the settings;
3. Select the module named "DDE Server" in the list of data export modules. If the module with this name does not exist, see the "Installation" section and make sure that you installed the module correctly;
4. Click the "Setup" button;
5. You will see the server name in the "DDE server name" field and the section name in the "Section name" field in the new dialog box (Fig.1). You can copy data from these fields to the clipboard. To do it, select the text in the corresponding field and press **Ctrl+C** on the keyboard.

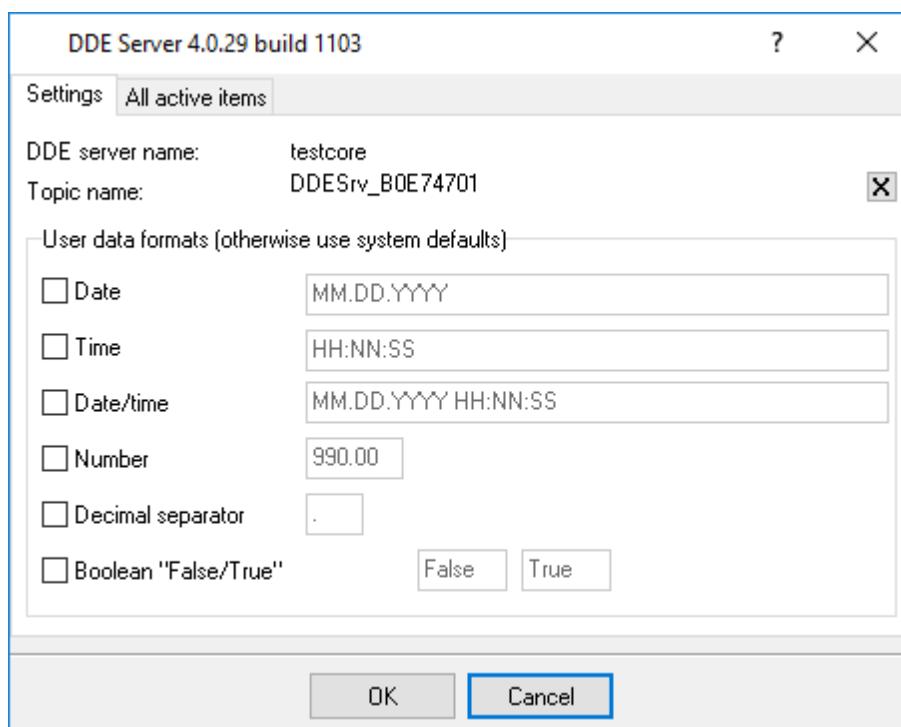


Fig.1. DDE server configuration window

## 5.2 Data representation formats

Sometimes the module can single out data of the float and datetime types in order to process information. These types may have various representation formats. You can choose what data representation format to use: the system one specified on your computer by default or the custom one that you will specify in the "Custom format" field for the corresponding data type.

The user can set the following date and time formats:

- d** - day, without a leading zero (1-31).
- dd** - day, with a leading zero (01-31).
- ddd** - weekday, in the short text format (Mon-Sun) specified on this computer.
- ddd** - weekday, in the full text format (Monday-Saturday) specified on this computer.
- m** - month, without a leading zero (1-12).
- mm** - month, with a leading zero (01-12).
- mmm** - month, in the short text format (Jan-Dec) specified on this computer.
- mmmm** - month, in the full text format (January-December) specified on this computer.
- yy** - year, two last digits (00-99).
- yyy** - year, four digits (0000-9999).
- h** - hours, without a leading zero (0-23).
- hh** - hours, with a leading zero (00-23).
- n** - minutes, without a leading zero (0-59).
- nn** - minutes, with a leading zero (00-59).
- s** - seconds, without a leading zero (0-59).
- ss** - seconds, with a leading zero (00-59).

**Example:** The user specifies HHDDMMYYYY in the files for the date / time field will be created as a string similar to the following: 0101122003.

The custom representation format for numbers of the float type can be specified with the help of the following special characters:

**0** – number position. If you enter a number in the position where this mask is used for formatting, the performed operation will result in this number copied to the position of the mask. If no number is present in the position where this mask is used, 0 will take this position.

**#** - number position. If you enter a number in the position where this mask is used for formatting, the performed operation will result in this number copied to the position of the mask. If no number is present in the position where this mask is used, this position will be empty.

**.** – decimal symbol. The first '.' character will be considered as a decimal symbol. The rest of these characters in the format mask will be ignored. As a result, the '.' character will differ from the system variable setting the decimal symbol. The default value of this decimal symbol is set in the Windows Control Panel under "Regional Options" - "Number".

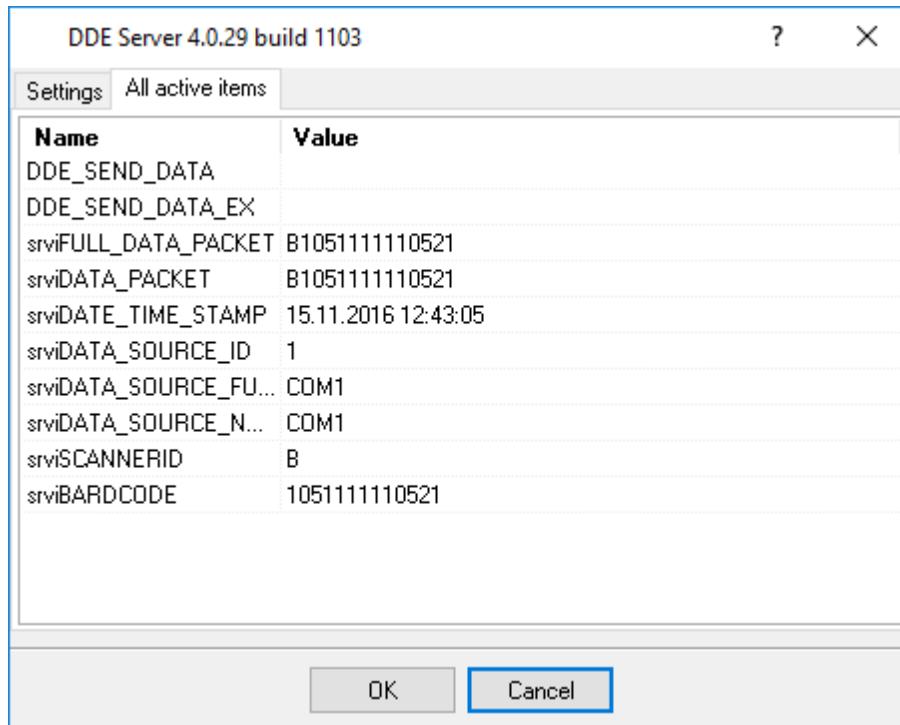
**,** - digit grouping symbol. If the format mask contain one or more ',' characters, this digit grouping symbol will be used in the specified positions of the number format mask. The default value of this symbol is set in the Windows Control Panel under "Regional Options" - "Number".

**E+** - scientific representation. If any of these strings 'E+', 'E-', 'e+', or 'e-' is present in the format mask, this number will be represented in the scientific format, where a positive exponent will come after the 'E+' or 'e+' string and the negative exponent will come after the 'E-' or 'e-' string.

'xx'/"xx" – a sequence of characters enclosed in single or double quotation marks will be represented.

## 5.3 Current data

While data is being exported via the DDE server, you can monitor the current state of the variables being sent. The last value of the exported variable is displayed in the "Active variables" list (Fig.2). The "Name" column shows the name of the variable. It will be sent via DDE under the same name. The "Value" column shows the value of the variable and this value is changed after the next data block is analyzed and sent.



The screenshot shows a software window titled "DDE Server 4.0.29 build 1103". At the top, there are tabs for "Settings" and "All active items", with "All active items" being the active tab. Below the tabs is a table with two columns: "Name" and "Value". The table contains the following data:

Name	Value
DDE_SEND_DATA	
DDE_SEND_DATA_EX	
srviFULL_DATA_PACKET	B1051111110521
srviDATA_PACKET	B1051111110521
srviDATE_TIME_STAMP	15.11.2016 12:43:05
srviDATA_SOURCE_ID	1
srviDATA_SOURCE_FU...	COM1
srviDATA_SOURCE_N...	COM1
srviSCANNERID	B
srviBARDCODE	1051111110521

At the bottom of the window are two buttons: "OK" and "Cancel", with "Cancel" being highlighted.

Fig.2 Active variables in the DDE server window

## 6 Troubles?

### 6.1 Possible problems

**No data for publication/exporting** – no data is passed for exporting. Solution: configure the parser, make sure that one or more variables are declared in the parser.

**Error on binding variable with name %s [%s]** – the error usually occurs if data does not correspond to the specified format. For example, the date and time format does not correspond to the data.

**Unable to disconnect from the database [%s] and Unable to connect to a database [%s]** – it is impossible to connect/disconnect to/form the database. You should check the parameters of the database connection. The analysis of the additional information will help you locate the error.

**Database access error [%s]**. Stop operations with the database? – the message appears if an error occurs during an attempt to execute an SQL query if the second variant of reacting to errors is selected. The message implies a "Yes" or "No" answer. The analysis of the additional information will help you locate the error.

**Unable to verify your SQL script [%s]** – the message appears when an attempt to analyze your SQL query fails. Check if the syntax of your SQL query is correct.

**Tested successfully** – the message appears if your database connection is successfully tested. It requires no additional actions.

**Database isn't used** – the message appears if the module is temporarily disabled (the "Temporarily disabled" check box is selected) or the database name field is empty. Check the connection parameters.

**Database isn't selected** - the message appears if the database type is not selected. Check the connection parameters.

**Database: %s** – %s contains the database name. The message appears if the database connection is successful. Usually, you see it when you call the module for the first time. It requires no additional actions.

**Invalid data block length (columns=%d,length=%d)** – an internal application error. It means that the data sent by the parser is in an invalid format. Perhaps, you are using the module incompatible with the version of the Advanced Serial Data Logger kernel. Update the versions of both the kernel and the module.

**The time of connection is not due yet (%d,%d)** – the message appears during an attempt to connect to the database after the connection to it has been lost and the "Reconnect after" option is enabled. No additional actions are required.

**Invalid procedure call. Bad arguments** – an attempt to call the module using invalid parameters. Perhaps, you are using the module incompatible with the version of the Advanced Serial Data Logger kernel. Update the versions of both the kernel and the module.

**Writing to the database is complete** - the message appears if your queue of SQL queries is successfully executed. It requires no additional actions.

**Writing to the database is complete with errors** – the message appears if the executing your queue of SQL queries was interrupted by an error. It requires no additional actions.

**Your SQL is empty. Please, specify some SQL text first** – the message appears if you do not enter the text for your SQL query. Check if the options on the "SQL queue" tab are configured correctly.

**Invalid temporary path** – the path to the temporary file specified by you does not exist. Enter a new path in the "Temporary folder" field on the "Errors handling" tab.

%s, %d – will be replaced by additional information.