SIEMENS

LOGO! Access Tool Help

Operating Instructions

Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

> ### ⚠ DANGER
> indicates that death or severe personal injury **will** result if proper precautions are not taken.

> ### ⚠ WARNING
> indicates that death or severe personal injury **may** result if proper precautions are not taken.

> ### ⚠ CAUTION
> indicates that minor personal injury can result if proper precautions are not taken.

> ### NOTICE
> indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

> ### ⚠ WARNING
> Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

Trademarks

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Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

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Introduction 1

LOGO! Access Tool is an add-in for Excel. It connects to LOGO! Base Module through HTTP or HTTPS.

LOGO! Access Tool provides the following features:

- Set data synchronization period
- Show history data
- Start or stop the data synchronization
- Get value of LOGO! Variables such as I, Q and M
- Record all variables values and save them in log files

Compatibility

- If LOGO! Access Tool connects to LOGO! Base Module through HTTP, the compatibility information is as follows:

  Supported Office Excel versions
  – Office Excel 2007
  – Office Excel 2010
  – Office Excel 2013
  – Office Excel 2016
  – Office Excel 2019
  – Office Excel 365

  Supported LOGO! Base Modules
  – LOGO! 8 (0BA8 Standard)
  – LOGO! 8.1 & 8.2 (LOGO! 8 FS4)
  – LOGO! 8.3
  – LOGO! 8.4 and later versions

  Supported Windows operating systems
  – Windows 7
  – Windows 8
  – Windows 10
  – Windows 11

- If LOGO! Access Tool connects to LOGO! Base Module through HTTPS, the compatibility information is as follows:

Supported Office Excel versions

  - Office Excel 2007

  - Office Excel 2010

  - Office Excel 2013

  - Office Excel 2016

  - Office Excel 2019

  - Office Excel 365

Supported LOGO! Base Modules

  - LOGO! 8.3

  - LOGO! 8.4 and later versions

Supported Windows operating systems

  - Windows 8

  - Windows 10

  - Windows 11

Document History

The following editions of LOGO! Access Tool have been published:

Edition	Version	Comment
07/2016	V1.0.0	First edition
05/2017	V1.0.1	Second edition
11/2017	V2.0.0	Third edition
03/2019	V2.0.1	Fourth edition
10/2020	V2.1.0	Fifth edition
06/2023	V2.1.1	Sixth edition
08/2024	V2.1.1	Seventh edition

Security 2

2.1 Cybersecurity information

Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial cybersecurity measures that may be implemented, please visit
https://www.siemens.com/cybersecurity-industry.

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under
https://new.siemens.com/cert.

2.2 Data protection

Siemens observes the data protection guidelines, especially the requirements regarding data minimization (privacy by design). This means the following for this product: The product does not process / save any personal information, but only technical functional data (e.g. time stamps). If the user links this data to other data (e.g. shift plans) or if the user saves personal information on the same medium (e.g. hard disk) and therefore creates a personal reference in the process, the user has to ensure meeting the guidelines regarding data protection.

Note

Notes on protecting administrator accounts

A user with administrator rights has extensive access and manipulation options available to the system.
Therefore, ensure there are adequate safeguards for protecting the administrator accounts to prevent unauthorized changes. To do this, use secure passwords and a standard user account for normal operation. Other measures, such as the use of security policies, should be applied as needed.

Note

To protect LOGO!Soft Comfort and LOGO! Web Editor from any undesired manipulation when your PC suffers malicious attacks from the Internet, Siemens strongly recommends you to install a whitelist tool on the PC. Then use the tool to manage the software installed on your PC.

Operating the LOGO! Access Tool

<div align="right">3</div>

3.1   Prerequisite

Note

You can only use LOGO! Access Tool in Local Network with a firewall.

In current version, LOGO! Access Tool only supports one BM connection.

Before using LOGO! Access Tool, make sure that you meet the following requirements:

- Install LOGO! Access Tool in Microsoft Excel.

- Connect your PC to the target LOGO! Base Module.

- Enable the Web server access through LOGO!Soft Comfort. On how to enable the Web server access, refer to *LOGO!Soft Comfort Online Help*.

Note

If you enable the HTTPS access, you need to import LOGO! root certificate in Windows before you use LOGO! Access Tool. On how to import LOGO! root certificate, refer to the chapter Security -> Installing LOGO! Root Certificate of *LOGO! System Manual*.
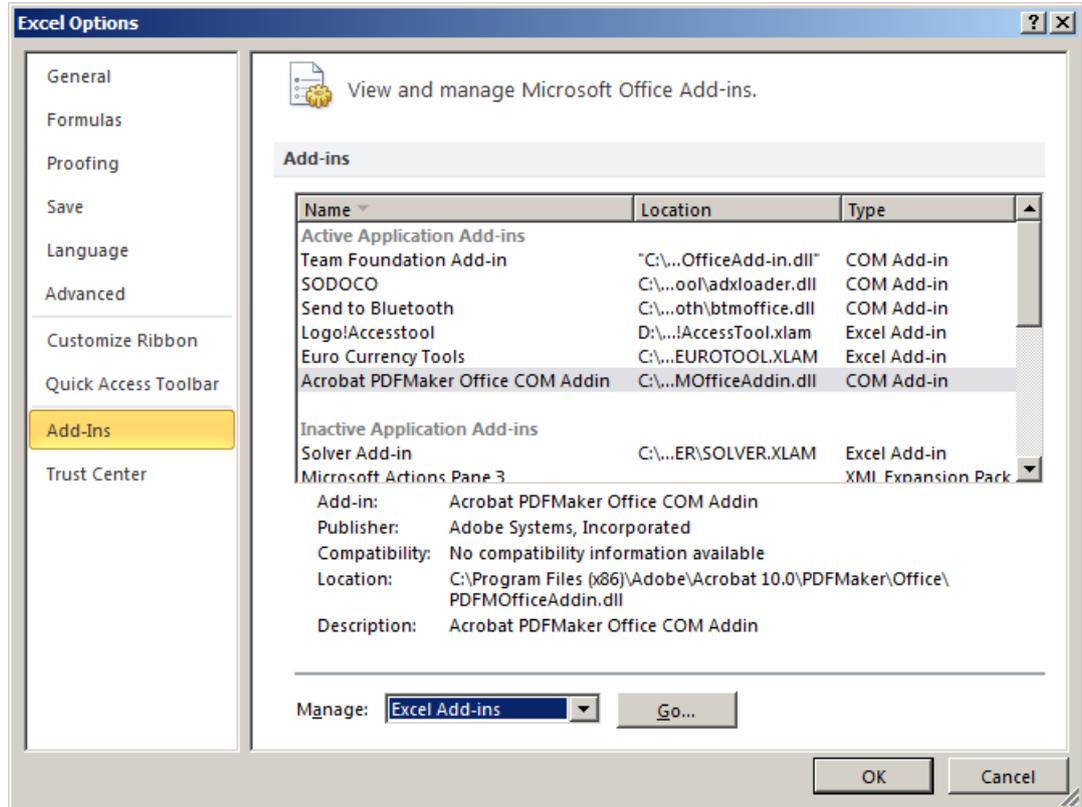

3.2   Install LOGO! Access Tool

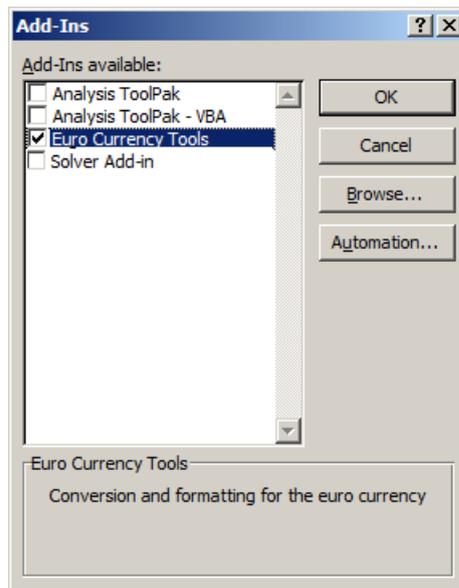Before starting working with **LOGO! Access Tool**, you need to install it first.

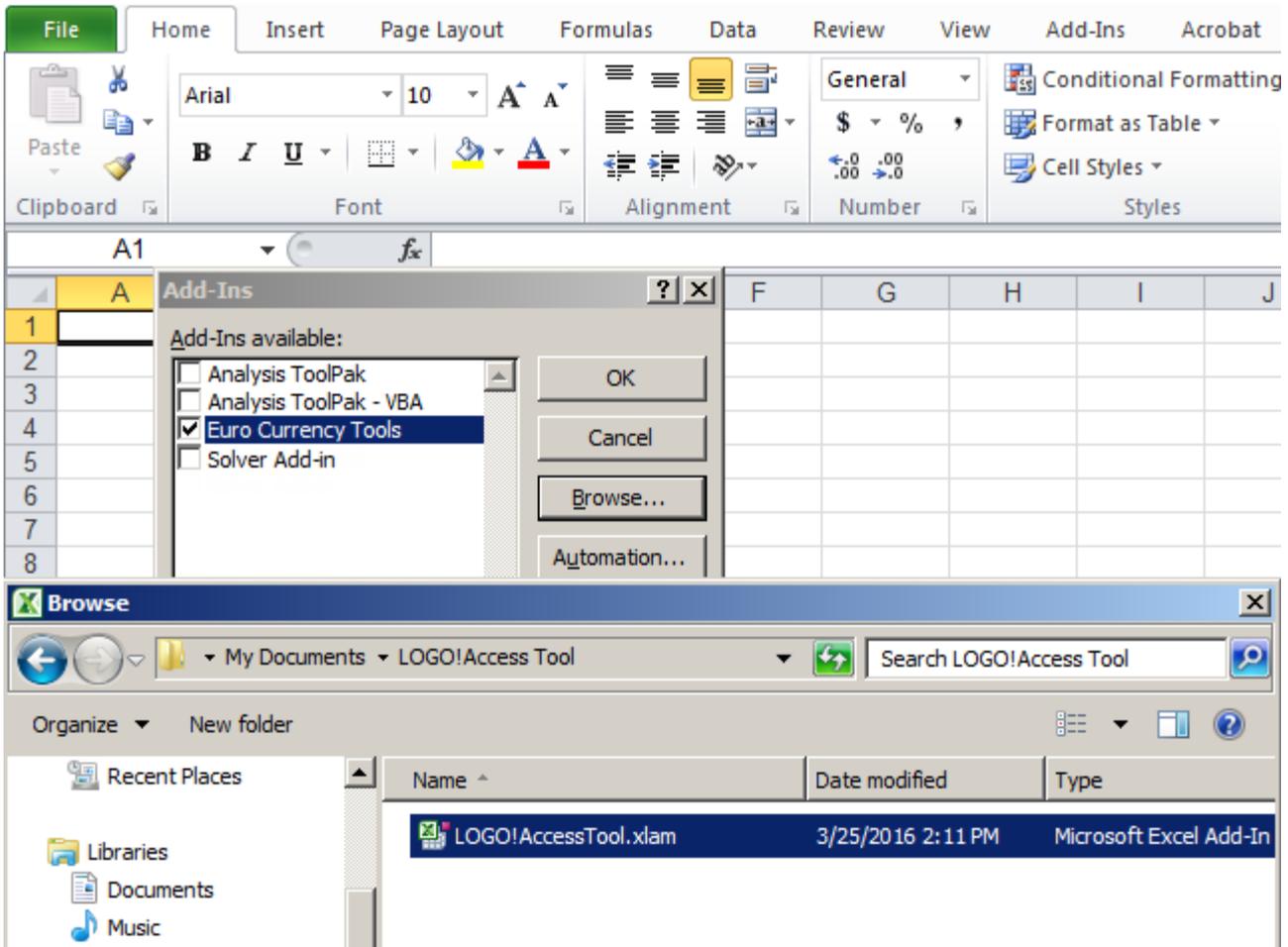1. Copy `LOGO!AccessTool.xlam` to your computer.
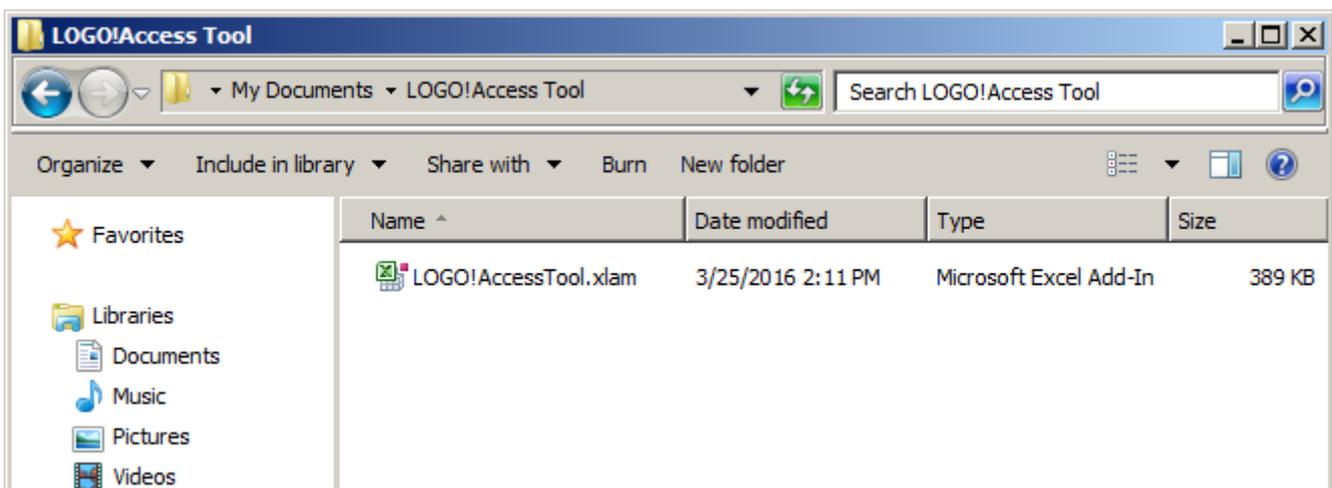
2. Start Excel.

3. On the **File** menu, point to **Options**, and then click **Add-Ins**.

4. In the **Manage** box, select **Excel Add-ins**, and then click **Go...** button**.**

5. In the "Add-Ins available" pane, click **Browse...** button**.**

6. Browse to the folder which you save "LOGO! Access Tool" in step one and select the tool.
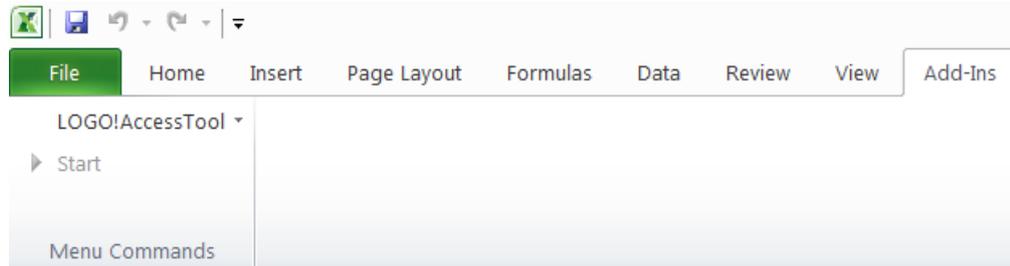

Result: LOGO! Access Tool is listed in the "Add-Ins available" pane and its check box is automatically selected.

7. Click **OK.**

3.3   LOGO! Access Tool Menu

After installing LOGO! Access Tool successfully, click the toolbar **Add-Ins**, and then LOGO! Access Tool menu is displayed as follows.


LOGO! Access Tool menu consists of two options:

- Start/Stop: you can use it to start or stop data synchronization.

- LOGO! Access Tool: click it and a drop-down menu appears. This drop-down menu includes Log In Panel, Configure Panel and About Panel.
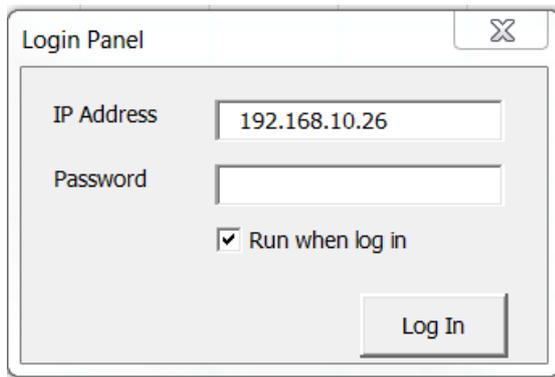
3.3.1   Log In Panel

Procedure

After installing LOGO! Access Tool, log in according to the following steps:

1. Click **Log In** in the drop-down list of LOGO! Access Tool menu.
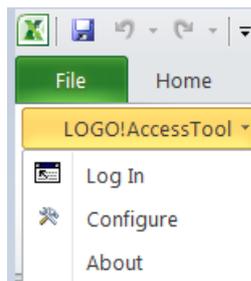
2. Enter IP address and password of your LOGO! Base Module after a Login panel appears, and then check the box **Run when log in**.

Note

LOGO! Access tool shares the same access control with Web server.

3. Click the **Log In** button.

Login failure troubleshooting

If the login goes wrong, a dialog appears to remind you that your login fails. You can refer to the following table to troubleshoot the error cause and fix the error through corresponding solution.

Error code	Possible remedy
2146232576 (80131700)	Install .NET Framework 3.5 on your PC: Open **Control Panel** in your PC → Click **Program and Features** → Click **Turn Windows features on or off** → Check the box of **.NET Framework 3.5**.
No error code	Restart your PC.
	Enable macros in the Excel: Click **File** in Excel → Click **Options** → Click **Trust Center** → Click **Trust Center Settings** → Click **Macro Settings** → Select **Enable all macros** → save settings and restart Excel.
	If you fail to login the LOGO! Base Module in HTTPS mode, you need to install the latest LOGO! Root certificate on your PC. About how to install the certificate, refer to section "Security -> Installing LOGO! Root certificate" in *LOGO! System Manual*.

3.3.2 Configure Panel

In the configure panel, you can set data synchronization period and history data number according to the following steps:
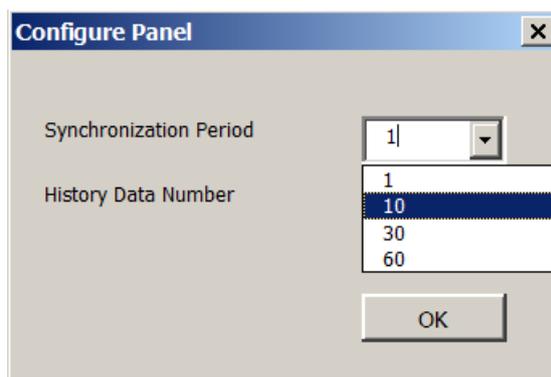
1. In the drop-down list of LOGO! Access Tool menu, click **Configure**, and then the configure panel is displayed.

2. In the scroll bar of **Synchronization Period**, you can select one number depending on your need.

Note

The synchronization period can be configured as the following numbers: 1,10, 30, 60 seconds, and the default is 1 second.
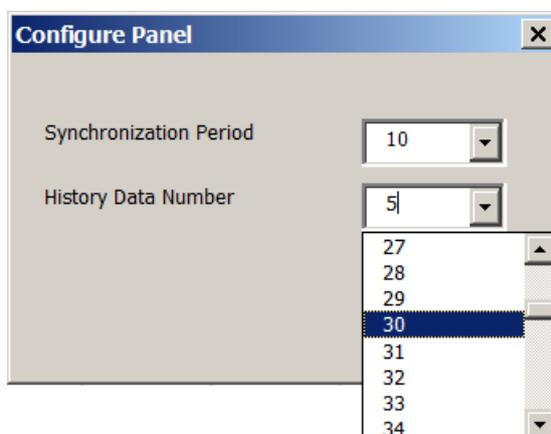

3. In the scroll bar of **History Data Number**, you can drag the scroll box from up to down to select one number for the history data.
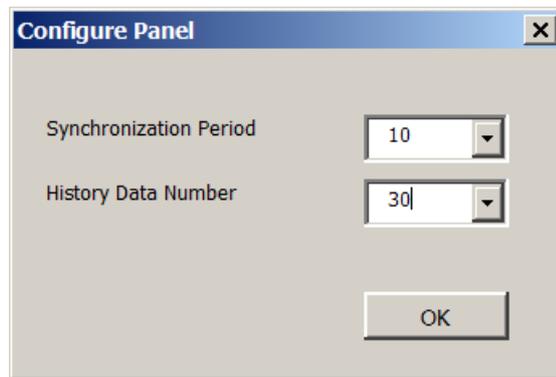
Note

The history data number varies from 1 to 100, and the default is 5.

4. After selecting the number for synchronization period and history data number, click button **OK.**

3.3.3 About Panel

About panel shows the version information of LOGO! Access Tool.

3.4 Get LOGO! Variable Value

Note

Make sure that you enable Web server access of the target LOGO! Base Module before using the LOGO! Access Tool.

After logging in (Page 11) LOGO! Access Tool successfully, you can get LOGO! Variable values by inputting "=LOGOVAR("id")" in a cell. Then the real time value of this specific variable is displayed in the cell. The variable value updates according to the data synchronization period you set in the Configure Panel (Page 13).
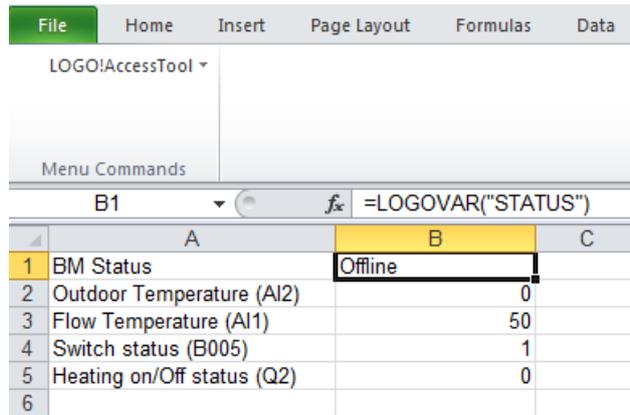
"id" means the identification for LOGO! variables. It consists of variable type and valid index. For one dimensional variables, there is only one index, for example: Q1, AI1, VW0. LOGO! also supports multiple dimensional variables which have multiple index, for example: SR1.1.

Note

When you input an invalid or unsupported id for LOGO!, **LOGO! Access Tool** cannot return data. The following table shows the variables that can be got with **LOGO! Access Tool**.

Variable	Variable Type	Valid Index		Remarks Example	Example
		Min	**Max**		
BM working status	STATUS	N/A	N/A	Offline Connecting Stop Running Recovering Invalid Status	=LOGOVAR("STATUS")
Show the Time	TIME	N/A	N/A	The time format is YYYY-MM-DD hh:mm:ss	=LOGOVAR("TIME")
Flag	M	1	64		=LOGOVAR("M1")
Analog flags	AM	1	64		=LOGOVAR("AM1")
Digital Outputs	Q	1	20		=LOGOVAR("Q1")
Analog outputs	AQ	1	8		=LOGOVAR("AQ1")
Digital Inputs	I	1	24		=LOGOVAR("I1")
Cursor keys	Cur	1	4		=LOGOVAR("CUR1")
LOGO! TD Function keys	F	1	4		=LOGOVAR("F1")
Shift register bits	SR	1	4	The first dimension addresses index of SR	=LOGOVAR("SR1.1")
		1	8	The second dimension addresses index of SR	=LOGOVAR("SR4.8")
Network inputs	NI	1	64		=LOGOVAR("NI1")
Analog Inputs	AI	1	8		=LOGOVAR("AI1")
Network analog inputs	NAI	1	32		=LOGOVAR("NAI1")

Variable	Variable Type	Valid Index		Remarks Example	Example
Network outputs	NQ	1	64		=LOGOVAR("NQ1")
Network analog outputs	NAQ	1	16		=LOGOVAR("NAQ1")
Variable Memory (In Bit) (LOGO! 8.FS4 and the later version)	VB	0	850	The first dimension addresses index of VB	=LOGOVAR("VB0.0")
	VXB	0	2047		=LOGOVAR("VXB0.0")
	VRB	0	511		=LOGOVAR("VRB0.0")
	VB, VXB, VRB	0	7	The second dimension address index of VB	=LOGOVAR("VB89.7")
Variable Memory (In Byte)	VB	0	850		=LOGOVAR("VB0")
	VXB	0	2047		=LOGOVAR("VXB5")
	VRB	0	511		=LOGOVAR("VRB6")
Variable Memory (In Words)	VW	0	849	The index is counted by Byte. It will try to reinterpret the byte and its next byte as a big-endian word.	=LOGOVAR("VW0")
	VXW	0	2046		=LOGOVAR("VXW6")
	VRW	0	510		=LOGOVAR("VRW8")
Variable Memory (In Double Words)	VD	0	847	The index is counted by Byte. It will try to reinterpret the byte and its next 3 bytes as a big-endian double word.	=LOGOVAR("VD0") .
	VXD	0	2044		=LOGOVAR("VXD8")
	VRD	0	508		=LOGOVAR("VRD12")

LOGOVAR combinations

You can use the following combinations to set the data format by adding them after the function LOGOVAR. For example, input "=LOGOVARS("AI")" in a cell, you can get signed value for AI.

Format letter	Description	Data Log letter	Description
S	Show signed value	L	Write the value to data log
U	Show unsigned value		
B	Show binary value		
H	Show hexadecimal value		
	The default is unsigned value		The default is that the value is not written in data log

You can use combination **L** together with **S**, **H** or **B**. For example, when you input "=LOGOVARSL("AI1")", you can get a log file with signed value of AI1.

Whether you input **L** before or after **S/H/B**, you get the same output for "=LOGOVARSL("AI1")" and "=LOGOVARLS("AI1")".

Trend direction (TR/TD)

You can add the argument of trend direction after LOGOVAR combination and this argument is optional. "TR" means that history data is shown on the right of the cell where the formula "=LOGOVAR("id")" is placed. "TD" means the history data is shown on the downside of the cell where the formula is placed. For example, LOGOVARS(id, "TR") means the signed value and history data is shown on the right of the cell.

Generate log files with LOGOVARL

To generate log files for a variable, input "=LOGOVARL("id")" in a cell. The log file updates according to the data synchronization period you set in the Configure Panel (Page 13).

- Log files are saved as csv files. The file name is composed of three parts: the excel file name, IP of the connected BM, and the time stamp. For example, Test_192.168.0.1_20160406080001.

- Log files are saved in the parent folder of the working excel. If you haven't saved the excel yet or the parent folder cannot be saved, the log files are saved in the *My document* folder of the Windows active user.

- If you use LOGOVARL for multiple variables, their log files are saved in different columns of one csv file. See an example of log file as follows:

	A1		f_x	Time	
	A	B	C		D
1	Time	Q1	VD0		VD4
2	9/21/2017 10:15	1	236		236
3	9/21/2017 10:15	1	237		237
4	9/21/2017 10:15	1	238		238
5	9/21/2017 10:15	1	239		239
6	9/21/2017 10:15	1	240		240
7	9/21/2017 10:15	1	241		241
8	9/21/2017 10:15	1	242		242
9	9/21/2017 10:15	1	243		243
10	9/21/2017 10:15	1	244		244
11	9/21/2017 10:15	1	245		245
12	9/21/2017 10:15	1	246		246
13	9/21/2017 10:15	1	247		247
14	9/21/2017 10:15	1	248		248
15	9/21/2017 10:15	1	249		249
16	9/21/2017 10:15	1	250		250
17	9/21/2017 10:15	1	251		251
18	9/21/2017 10:15	1	252		252

- You can add a suffix (@ serial number) to sort your variables in the log files. For example, if you have five variables in your working excel, you input them as LOGOVARL("Flag1@1"), LOGOVARL("I1@2"), LOGOVARL("Q1@3"), LOGOVARL("SR2.5@4"), LOGOVARL("F5@5"). Then the variables are listed in your log files as Flag1, I1, Q1, SR2.5, F5. The default serial number is 0.

Note

Capacity of LOGO! Access Tool

A csv file has a maximum of 20000 lines. LOGO! Access Tool will automatically write to a new log file when a log file is full.

You can have up to 500 log files in a folder. When the limitation is reached, your old log files will be removed in chronological order.

LOGO! 8 Standard can only synchronize 72 variables for all supported types.

LOGO! 8.FS4 and later version can synchronize 75 consecutive VM or 7 discrete VM. LOGO! 8.FS4 and later version has no limit for the other variables.

The variables which cannot be synchronized are returned as invalid data.

3.5 Uninstall the LOGO! Access Tool

Follow the below steps to remove LOGO! Access Tool completely from your computer.

1. Start Excel.

2. On the **File** menu, point to **Options**, and then click **Add-Ins**.

3. In the **Manage** box, select **Excel Add-ins**, and then click **Go...** button.
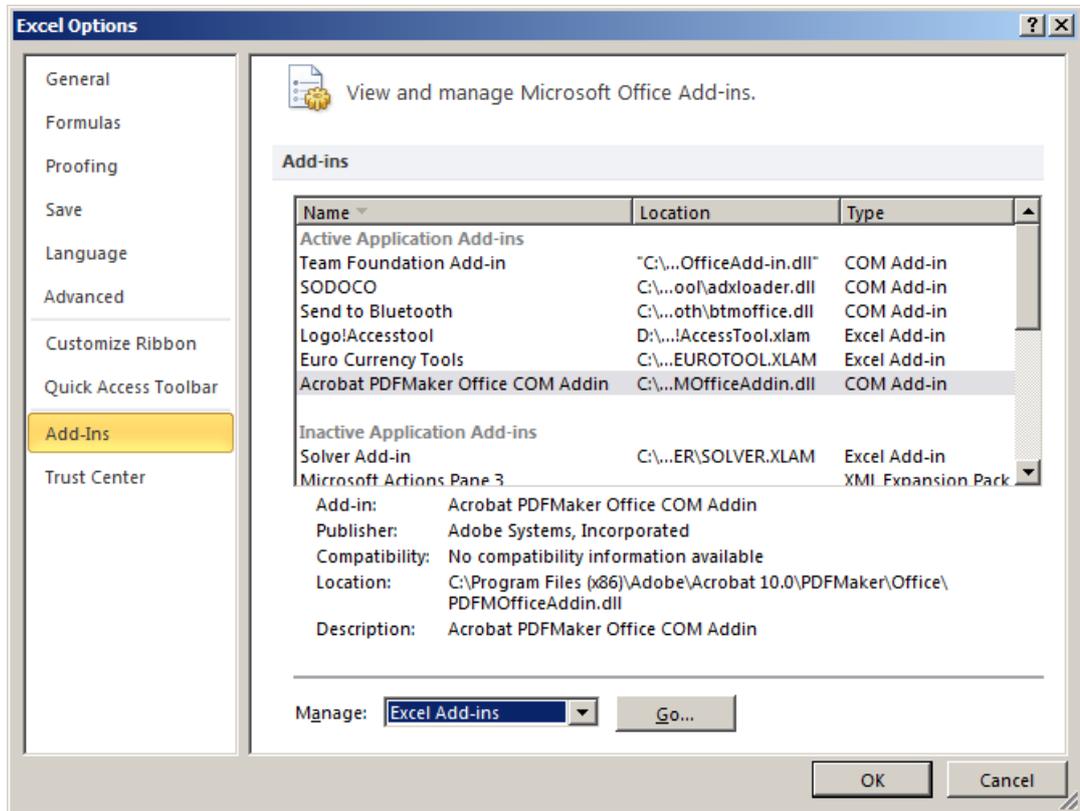
4. In the "Add-Ins available" pane, uncheck the check box next to "LOGO! Accesstool".
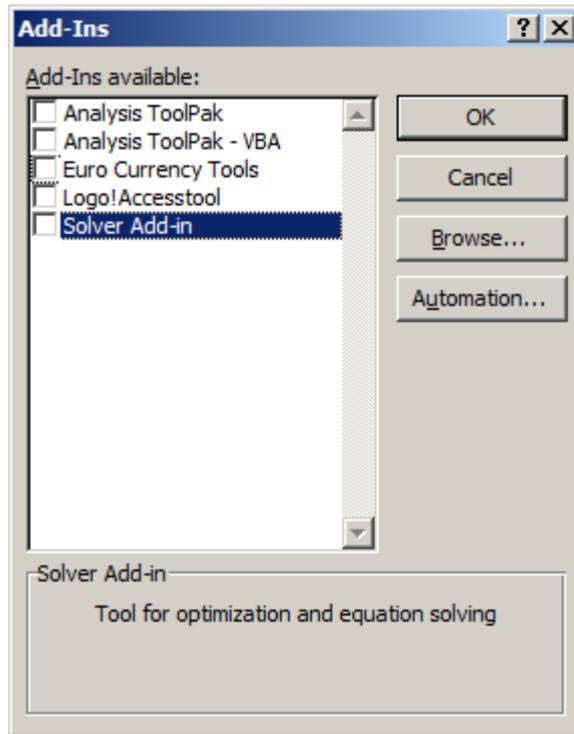
5. Click **OK.**

6. On the toolbar **Add-Ins**, right-click **LOGO! Access Tool**.

7. Select **Delete Custom Command.**
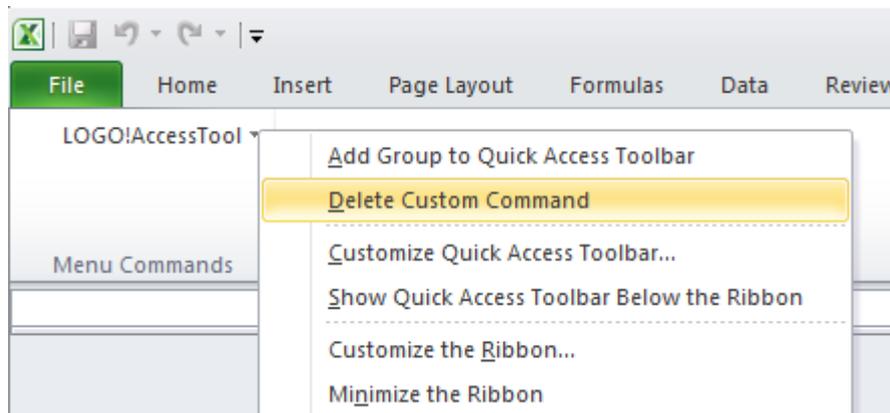
8. Delete the source file LOGO! Access Tool from your computer.

3.6 Reinstall the LOGO! Access Tool

LOGO! Access Tool cannot work properly in the following cases.

- You move LOGO! Access Tool to another location.

- You update excel to a higher version.

- You use excel workbook in another computer.

For the existing workbooks can work properly, follow the below steps to update the tool.

1. Reinstall LOGO! Access Tool. On how to reload your LOGO! Access Tool, refer to Install LOGO! Access Tool (Page 8).
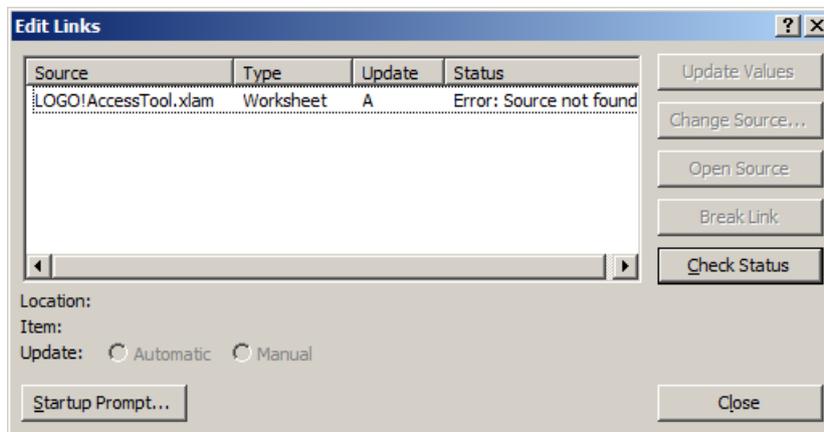
2. Edit the links in your workbook.

Edit the links in your workbook

Update the link to your LOGO! Access Tool according to the following instructions:

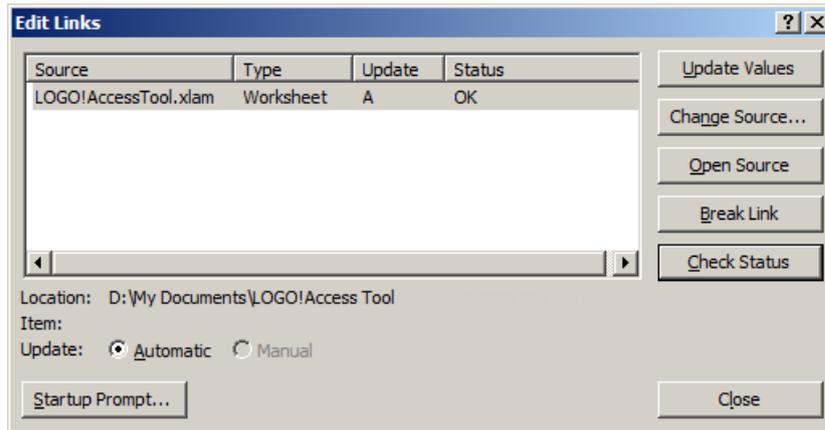1. On the **Data** tab, in the Connections group, click **Edit Links**.
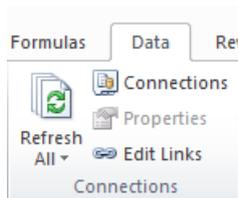
2. Check the status in the Status column.

3. Click **Change source...** and browse to the folder where LOGO! Access Tool is stored.

4. Click the LOGO! Access Tool to update the links. The status of the source changes to "OK".

5. Click **Close**.

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