



***SINECH1 - Driver of Ethernet Network
Protocol for SIMATIC S5 PLCs
User's Manual***

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1. SINECH1 - Driver of Ethernet Network Protocol for SIMATIC S5 PLCs

1.1. Driver Use

The SINECH1 driver is used for data exchange between **asix** computers and SIMATIC S5 PLCs provided with the CP 1430, via an Ethernet network. The **asix** system computer must be provided with the SIEMENS CP1413 card.

The cooperation of the **asix** system with the PLC by use of the SINECH1 protocol needs developing the controller program supporting the CP 1430.

1.2. Declaration of Transmission Channel

The full syntax of declaration of transmission channel operating according to the SINECH1 protocol is given below:

logical_name=SINECH1, fTsapPC, fTsapPLC, rTsapPC, rTsapPLC, MAC

where:

<i>fTsapPC</i>	- name of TSAP used for the reading operation (FETCH) in the asix computer;
<i>fTsapPLC</i>	- name of TSAP used for the reading operation (FETCH) in the controller;
<i>rTsapPC</i>	- name of TSAP used for the writing operation (RECEIVE) in the asix computer;
<i>rTsapPLC</i>	- name of TSAP used for the writing operation (RECEIVE) in the controller;
<i>MAC</i>	- MAC network address assigned to the controller.

NOTE

Names of TSAPs are any 8-character strings.

*Names of TSAPs declared in the **asix** system must have their equivalents among TSAPs declared by means of COM 1430 on the controller side.*

Reading and writing from/to the controller is executed within separate connections.

EXAMPLE

An exemplary declaration of transmission channel using the SINECH1 protocol is given below:

CHAN1=SINECH1, LocFetch, TestFetc, LocRecev, TestRece, 08:00:06:01:00:22

The logical channel named CHAN1 has the following parameters defined:

SINECH1 protocol,

LocFetch	- name of TSAP used for the reading operation (FETCH) in the asix system,
TestFetc	- name of TSAP used for the reading operation (FETCH) in the controller,

LocRecev - name of TSAP used for the writing operation (RECEIVE) in the **asix** computer,
 TestRece - name of TSAP used for the writing operation (RECEIVE) in the controller,
 08:00:06:01:00:22 - MAC network address assigned to the controller

1.3. Addressing the Process Variables

The rules of creating the symbolic addresses of variables belonging to the SINECH1 driver channel are the same as in case of the channel using the AS512 protocol

The SINECH1 driver is loaded as a DLL automatically.

1.4. Driver Configuration

Configuring the driver in the [SINECH1] section in the application INI file you use the following items.



LOG_FILE=file_name

Meaning - the item allows to define a file to which all diagnostic messages of the SINECH1 driver and the information about contents of telegrams received by the driver are written. If the item does not define the full path, then the log file is created in the current directory. The log file should be used only while the **asix** start-up.

Default value - by default, the log file is not created.



LOG_OF_TELEGRAMS=YES/NO

Meaning - the item allows to write to the log file (declared by use of the item LOG_FILE) the contents of telegrams sent within the communication with the controller. Writing the contents of telegrams to the log file should be used only while the **asix** start-up.

Default value - by default, the telegrams are not written.



LOG_FILE_SIZE =number

Meaning - the item allows to specify the log file size in MB.

Default value - by default, the item assumes that the log file has a size of 1 MB.

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