



***FILE2ASIX - Driver for Data Import from
Files
User's Manual***

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1. FILE2ASIX - Driver for Data Import from Files

1.1. Driver Use

FILE2ASIX is used for importing data into the **asix** system from text files of the following structure:

Opening line
Line containing variable 1 value
Line containing variable 2 value
 ...
Line containing variable n value
Closing Line

Each line has the following form:

$P1<sep>P2<sep>P3<sep>P4<sep>P5$

where:

$<sep>$	- delimiter ‘;’
$P1$	- for opening and closing line it is the file saving date and time in UTC format; - for other lines it is the variable reading time in UTC format;
$P2$	- symbolic address of the variable (it must not contain exclamation character ‘!’);
$P3$	- quality of the variable in one of forms given below: BAD , UNCERTAIN , GOOD;
$P4$	- value of the variable in integer or floating-point form (‘.’- as a delimiter)
$P5$	- name of the device path.

Fields: $P2$, $P3$, $P4$ and $P5$ have to remain empty for opening and closing line.

The UTC time format is as follows:

$YYYY-MM-DD<SP>GG:NN:SS,MS$

where:

$YYYY$	- 4 digits indicating a year,
MM	- 2 digits indicating a month,
DD	- 2 digits indicating a day,
SP	- white space character,
HH	- 2 digits indicating an hour,
NN	- 2 digits indicating minutes,
SS	- 2 digits indicating seconds,
MS	- 2 digits indicating milliseconds.

NOTICE

The file is treated as correct if first and last line are exactly the same.

1.2. Declaration of Transmission Channel

The full syntax of declaration of transmission channel operating according to the FILE2ASIX has the following form:

channel_name=FILE2ASIX, *file_path* [, *period*]

where:

<i>FILE2ASIX</i>	- driver name;
<i>file_path</i>	- path to file containing variable values;
<i>period</i>	- time (given in seconds) between consecutive file reading (10 seconds are the default value).

EXAMPLE

reading from the file \\komp\c\$\data\data.csv with 5 second interval
CHANNEL1 = FILE2ASIX, \\KOMP\C\$\Data\Data.csv, 5

reading from the file n:Data\data.csv with 10 second interval (default value)
CHANNEL2 = FILE2ASIX, n:Data\Data.csv

1.3. Addressing the Process Variables

The ASMEN process variable address may take one of the forms given below:

"access_path ! address"
"address"

where:

<i>access_path</i>	- generalized path to the device (value of the <i>P5</i> field),
<i>address</i>	- address of the variable in the path scope (value of the <i>P2</i> field).

The second form of addressing (*„address“*) is used when an access path is an empty string (*P5* field has no value).

Only a single variable may be passed through the file, thus a number of elements in the ASMEN variable declaration has to be equal to 1.

The driver automatically converts the type of the variable read from the file to a raw type, which is required by the conversion function given in the declaration of the ASMEN variable.

EXAMPLE

An example of the file which passes the values of ZMIENNA_FP and ZMIENNA_WORD variables:

```
2002-10-04 12:23:37,004;;;
2002-10-04 12:23:26,999;ZMIENNA_FP;GOOD;32.4436;PLC:S7[BEL_SPREZ]
2002-10-04 12:23:26,999;ZMIENNA_WORD;GOOD;32;
2002-10-04 12:23:37,004;;;
```

EXAMPLE

Examples of the ASMEN variable declaration for the above file:

```
JJ_1, "PLC:S7[BEL_SPREZ] ! ZMIENNA_FP", KANAL, 1, 1, NOTHING_FP
```

JJ_2, "ZMIENNA_WORD", KANAL, 1, 1, NOTHING

1.4. Driver Configuration

Driver parameters are set by using the separate **[FILE2ASIX]** section. The following entries may be placed in this section:

- log file creation,
- log file size,
- data validity period.

Names of entries connected with the log file are strictly refer to the convention used in other ASMEN drivers.



LOG_FILE=file_name

Meaning

- it allows definition of a file in which all diagnostic messages of the driver will be saved. If position does not define full path, then the log file will be created in the current directory. The log file should only be used at the stage of the **asix** system start-up.

Default value

- by default, no log file is created.



LOG_FILE_SIZE=number

Meaning

- it allows to specify the log file size (using MB unit).

Default value

- by default, 1MB size is assumed.

Parameter:

number

- a size of the log file in MB.



DATA_VALIDITY_PERIOD =number

Meaning

- this entry is used for monitoring cases when a data file with a given interval reading fail. The entry defines the number of consecutive failed readings, after which status of the variables will be set to BAD.

Default value

- by default, a period of data validity is equal to two cycles of data reading from a joint computer.

Parameter:

number

- a number of failed reading cycles, after which an error status is set.

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