UNIP

UNIP communication protocol

Supported device types and versions

Communication supports reading and writing data by means of the UNIP protocol (© IpeSoft Žilina).

Communication line configuration

- Communication line category: Serial, SerialOverUDP Device Redundant.
- Asynchronous line parameters according to the variant and type of the device connection.

Communication station configuration

- Communication protocols: **UNIP**, **UNIP Input Only**, **UNIP Time Synchro**, **UNIP Input Only Time Synchro**, **UNIP SCAN**.
- Station address is a decadis number within the range 1...230, or a hexadecimal number with a hash at the beginning (e.g. #1A).
- The UNIP Time Synchro and UNIP Input Only Time Synchro protocols execute the real time synchronisation for stations (time is included in poll).

Note:
The UNIP SCAN protocol is a passive protocol that tracks active communication of other UNIP master/slaves system. It doesn't send polls, but decode the tracking communication.

Station protocol parameters

Communication station - configuration dialog box - **Protocol parameters** tab.
They influence some optional protocol parameters. The following station protocol parameters can be defined:

Table 1

Parameter	Meaning	Unit	Default value
Retry Count	Poll repetition count in case of a communication error.	-	3
Retry Timeout	Delay between poll repetition in case of a communication error.	ms	2000 ms
Wait First Timeout	First waiting for response after sending the poll.	ms	500 ms
Wait Timeout	Delay between response readings till its finalization.	ms	500 ms
Max Wait Retry	Repetition count of response readings till its finalization.	-	8
Wait ACK Timeout	First waiting for response after writing, the ACK acknowledge is expected.	ms	700 ms
Wait First Get Stored	Waiting for a response after a request to read archive data.	s	1 s
AI Back Compatible	In D2000 V5.00.017 Rel.A020430541, the interpretation of I/O tags of the AI and AO types of the forms of 3, 5, 6 and 7 has been modified to signed ones. The value of AIBC=YES enables backward compatibility and these I/O tags will be interpreted as unsigned.	-	NO
Max. Activity Wait	For the UNIP SCAN protocol only – time (in seconds) within which the response for given station must be received, otherwise the station passes to communication error.	s	600 s
Use Daylight Saving Time in TS Req.	Setting the parameter to YES activates the use of daylight saving time in the timestamped requests.	-	NO

String containing the protocol parameters is being defined as follows:

```
Keyword=value;Keyword=value; ...
```

Example:

```
RC=1;RT=500;
```

If there is used a keyword with an invalid value in the initialization string, there will be used corresponding default value according the table 1.

I/O tag configuration

Possible I/O tag types:

Ai, Ci, Di for the *UNIP Input Only* and *UNIP Input Only Time Synchro* protocols.
Ai, Ao, Ci, Co, Di, Dout for the UNIP, *UNIP Time Synchro* and *UNIP SCAN* protocols.

Address: Decimal number within the range of 0...255.

Literature

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Changes and modifications

- September 21st, 2000 – added UNIP SCAN protocol (for D2000 v4.50 and higher).

Document revisions

- Ver. 1.0 – February 9th, 2000
- Ver. 1.1 – September 21st, 2000
- Ver. 1.2 - September 18th, 2002 - the protocol parameter AIBC added.
- Ver. 1.3 - November 21st, 2010 - document updated.

ⓘ **Related pages:**

Communication protocols