# Ping Protocol



## Supported device types and versions

The protocol is used to determine the network availability of devices using the ICMP Ping service. Although this functionality is already in the D2000 Server process (see system structure SV._System_NetStatus), a separate implementation in the D2000 KOM process has the following advantages:

- Support for the "Retry Count" parameter: multiple repetitions of the challenge (so the I/O tag does not go to the False state immediately after the failure to receive a single response).
- The possibility of pinging even in networks that are not available for the D2000 Server (eg D2000 KOM running in the DMZ).

The protocol supports pinging using names/addresses in both IPv4 and IPv6 protocols.

## Communication line configuration

- Category of communication line: API

## Communication station configuration

- Communication protocol: **Ping Protocol.**
- The station address is not specified.

## Station protocol parameters

Communication station - configuration dialog box - "**Protocol parameters**" tab.
They influence some of the optional parameters of the protocol.

**Table 1**

| Keyword | Full name | Meaning | Unit | Default value |
|---|---|---|---|---|
| WT | Wait Timeout | Time waiting for a reply (ICMP Echo Reply). | ss.mss | 1.000 sec |
| RC | Retry Count | The number of repetitions of the request (ICPM Echo Request) in case of no response. | - | 2 |

## I/O tag configuration

Possible I/O tag types: **DI**

Addresses of I/O tags:

- **IPv4 address:** e.g. *172.16.0.1* or *8.8.8.8*
- **IPv4 symbolic name:** e.g. *myD2server* or www.google.com
- **IPv6 address:** e.g. *fe80::d898:43fa:9371:da32* or *[fd00::2]*
- **IPv6 symbolic name:** e.g. *[myD2server]* or *[www.google.com]*

If the address starts with *%IGNORE*, the I/O tag will be ignored.

## Literature

https://en.wikipedia.org/wiki/Internet_Control_Message_Protocol

https://en.wikipedia.org/wiki/ICMPv6

## Changes and modifications

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## Document revisions

- Ver. 1.0 – Mach 5, 2024 – creating a document

**Related pages:**

Communication protocols