IP address/name configuration and IPv6 support.

IPv6 support is implemented in the D2000 KOM process in version 12.2.70 and higher, in binaries from 15.12.2021 and later.

All relevant types of communication lines support IP protocol in versions 4 and 6:

- TCP/IP-TCP
- TCP/IP-TCP Redundant
- TCP/IP-UDP
- SerialOverUDP Device Redundant
- SerialOverUDP Line Redundant
- SerialOverUDP System&Line Redundant
- RFC2217 Client

The following rules apply when entering IP addresses and names:

- The IPv4 address is entered in the standard notation: 192.168.0.1, 127.0.0.1, 1.2.3.4
- The IPv6 address is entered in full or abbreviated notation.
  Examples of full notation:
  fe80:0000:0000:0000:40d8:ab7a:8138:b8c9
  0000:0000:0000:0000:0000:0000:0000:0001
  Equivalent addresses in abbreviated notation:
  fe80::40d8:ab7a:8138:b8c9
  ::1
- The name to be converted to an IPv4 address (name resolution) is entered directly: localhost, myhostname, myhost.mycompany.com
- The name to be converted to an IPv6 address is entered in square brackets: [localhost], [myhostname], [myhost.mycompany.com]
  Note: This notation is for backward compatibility (originally all names were resolved to IPv4 addresses).
  Note: if IPv4 or IPv6 addresses are entered in square brackets, the brackets are ignored, e.g. [127.0.0.1], [::1].
- In the case of a client communication protocol (e.g. IEC 870-5-104), multiple IP addresses separated by a comma or semicolon can be entered on TCP/IP-TCP, TCP/IP-TCP Redundant, TCP/IP-UDP and RFC2217 Client lines. It is possible to use both IPv4 and IPv6 addresses on one line (eg "OtherComputer, [OtherComputer], 192.168.0.1; [fd00::23]").
  Note: This feature can be used e.g. for the gradual seamless migration of communications from IPv4 to IPv6.
- In the case of a server communication protocol (e.g. IEC 870-5-104 Server or Generic User Protocol in server mode), it is possible to enter:
  - The specific IPv4/IPv6 address of the computer running the D2000 KOM process (e.g. 192.168.0.22 or fd00::1) or the name (myhostname, localhost, [myhostname], [localhost]) - then the D2000 KOM process will only bind to this IP address.
  - Symbolic address * or *ALL* for IPv4, or [*] or [*ALL*] for IPv6 - then the D2000 KOM process will bind to all available IPv4 or IPv6 computer interfaces.
    Note: one line cannot be used to listen to both IPv4 and IPv6 at the same time. However, it is possible to create two independent lines, e.g. one with the address *ALL*, the other with the address [*ALL*].
- If a TCP-based client communication protocol is used on the Linux or Raspberry Pi platform and a connection must be established to the automatically assigned link-local IPv6 address, i.e. address from the fe80::/10 block, then it is necessary to specify the network interface through which the connection is to be established. Similarly, if it is necessary to listen on a link-local IPv6 address, then it is necessary to specify the network interface on which this address is configured.
  The network interface can be specified by name or number, e.g.
  e80::b4d9:256c:8bf9:4a5a**%eno16777984**
  or
  fe80::b4d9:256c:8bf9:4a5a**%2**
  Note: if such a notation is used on the Windows platform, then the highlighted part of the IPv6 address is ignored by the D2000 KOM process.
- If both *primary device* and *backup device* within the same "physical line" are configured on SerialOverUDP Device Redundant, SerialOverUDP Line Redundant, or SerialOverUDP System&Line Redundant lines, then both devices must be either IPv4 or IPv6 (depending on the address type of the *primary device*, the D2000 KOM process determines whether it should listen on the local port on all IPv4 or IPv6 interfaces). SerialOverUDP Line Redundant or SerialOverUDP System&Line Redundant lines, which contain configurations from 2 resp. The 4 "physical lines" may have individual "physical lines" configured as IPv4 or IPv6 (i.e., one "physical line" may use IPv4 and the other IPv6). This feature can be used e.g. for the gradual seamless migration of communications from IPv4 to IPv6.

Related pages:

Communication lines