Values (Communication Lines)

Values of communication lines

An object of Line type can acquire the following values in the D2000 system:

Object value	Description
True	The line is working.
False	The line is not working. **Note:** Solving line failure problems depends on the line category. Each line generates the output file called *line_name.log* placed in the **trace** subdirectory of the application directory. The file contains detailed information about the error.

The definition of working of the line depends on its category:

Line category	Functioning line
LonWorks	The LonWorks dynamic library (ldv32.dll) was initialized and the specialized LON device could be opened.
MOXA IP Serial Library	The Moxa dynamic library (Ipserial.dll) was initialized, a connection to the specified Moxa devices was established and specified serial port parameters were set.
RFC2217 Client	A TCP connection with the RFC2217 server was established and possibly the parameters of the serial port were queried.
Serial Serial Line Redundant System&Line Redundant	The serial port was open and the required serial port parameters were set.
SerialOverUDP Device Redundant SerialOverUDP Line Redundant SerialOverUDP System&Line Redundant	Binding to the specified local UDP port(s) was successful.
TCP/IP-TCP TCP/IP-TCP Redundant TCP/IP-TCP System Redundant	A TCP connection was established (client protocols), resp. binding to the specified local TCP port(s) was successful (server protocols).
TCP/IP-UDP	Binding to the specified local UDP port was successful.

Note:

- closing the line (for lines of categories Serial, Serial Line Redundant, System&Line Redundant, and RFC2217 Client with the LNSTAT OPEN /CLOSE command will change the value of the line to False.
- closing the TCP/IP-TCP line in the Modbus Client protocol due to the Immediate Disconnect protocol parameter will cause the line value to change to False.
- closing the TCP/IP-TCP line in the IEC 60870-5-104 protocol due to disabling all communication stations will cause the line value to change to False.

Object value of category **Communication lines** can have also flags (user attributes) set. Currently, they are implemented for the following combinations of line categories and communication protocols:

- Line category SerialOverUDP Line Redundant: the FA - FB flags inform about a communication failure on the primary/secondary line.
- Line category SerialOverUDP System&Line Redundant and TCP/IP-TCP System Redundant: the FA - FD flags inform about a communication failure on the primary/secondary line of the A/B system.
- Line category RFC2217 Client: flags inform about connection to the specified IP address (FA - 1st address, FB - 2nd address, etc).
- Line category TCP/IP-TCP and communication protocol IEC 870-5-104 Server: flags inform about connected clients. For a detailed description see the note in the description of the protocol.
- Line category TCP/IP-TCP or TCP/IP-TCP Redundant and multiple client communication protocols (e.g. IEC 870-5-104, MODBUS Client, DLMS /COSEM, Siemens SAPHIR): flags inform about connection to the specified IP address (FA - 1st address, FB - 2nd address, etc).
  Note: the Siemens SIMATIC S7 ISO on TCP communication protocol does not have such diagnostics, as it can create up to 4 TCP connections in parallel.

Related pages:

Communication lines