## **Redundancy of communication process KOM**

A redundancy of communication process KOM reduces the loss of telemetric data.

The following picture shows D2000 system with redundancy of communication process in D2000 system:



Redundancy of communication process is realized by increasing the number of the communication processes (D2000 KOM) in system without the need to define them in the DODM model.

It is realized through the running processes in parallel (i.e. instance communication processes) - their names are identical (e.g. SELF.KOM). They are different in so-called instance number the value of which can be within the range from 1 to 15.

It holds the following for value of the object SELF.KOM:

If, at least, one instance is running the process will acquire the value Run. At the same time, each running instance of process sets the user attribute (flag) of value as follows: instance 1 sets the flag B, instance 2 sets the flag C,...

The parameters of the communication process (kom.exe) can also define the instance number as follows:

## kom.exe /Wprocess\_name,InstNr

InstNr - instance number (e.g. kom.exe /WSELF, 1)

The above mentioned method allows starting the several processes D2000 KOM with the identical name at the same time. The individual processes will execute the following actions according to their status:

- Active KOM process executes an active capturing of data from telemetry and sending them to system. Only one process can execute this
  action it is the process with the lowest instance number.
- Passive KOM process it does not interfere into telemetry, i.e. it does not open the communication channels and does not send any data. In
  some cases it can watch inactively the communication of the active KOM process with the devices.

## Important information

- 1. Only communication protocols with so-called redundancy support can be used in redundancy of communication process. A detail information about support of redundancy for individual communication protocols are mentioned in document Communication protocols.
- 2. The behaviour of the communication process connected to the redundant D2000 Server in SBS status is not different from the passive KOM process. It hold above mentioned information do not interfere into telemetry.
- 3. If, at least, one of instance communication processes is running it is not possible to start non-instance (/WSELF) and vice-versa.
- 4. TELL command SET\_ACT\_INST allows to control the switching of the active communication process.
- 5. TELL command SET\_PREFERRED\_INST allows to set a preferred instance of the communication process.
- 6. We recommended to install each of instance communication processes on separate computer. It ensures a servicing without a breakdown of the telemetry.

(i) Related pages:

Redundancy in D2000 systems