

Configurations involving basic DP slaves

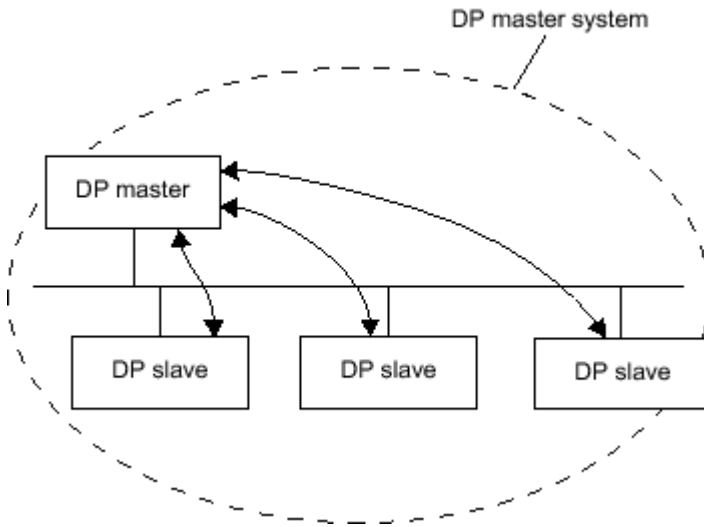


Communication between DP master and DP slave

In the case of a configuration involving simple DP slaves, data is exchanged between the DP master and simple DP slaves, i.e. with I/O modules via the DP master. The DP master sequentially polls each DP slave configured within the DP master system and contained in its polling list. In doing so, it transfers the output data to the slaves and receives their input data in return.

Mono-master system

The configuration with only one DP master is also described as mono-master system. A single DP master with its associated DP slaves is connected to a physical PROFIBUS DP subnet.



Configurations involving intelligent DP slaves



Definition

DP slaves that feature their own preprocessing program are referred to as intelligent DP slaves (I-slaves).

CM 1242-5 is an intelligent DP slave.

I-slave <> DP master data exchange

A higher-level automation system processes the automation task, which is broken down into sub-tasks. The sub-tasks are processed in the lower-level automation systems. The necessary control tasks are processed separately and efficiently in the CPUs as preprocessing programs.

In the case of configurations involving intelligent DP slaves, the DP master only accesses the operand area of the I-slave's CPU, and not the I/O modules of the intelligent DP slave. The operand area must not be assigned to any actual I/O modules in the I-slave. The assignment must be made during I-slave configuration.

The addresses of the data to be exchanged between the master and slave are configured in the transfer area of the I-slave.

