

### 6.10.5.4 Example: Compax3 as CANopen Master with PIOs

- ◆ Compax3 control via PIOs.
- ◆ Configuration of the PIO connection with the C3 ServoManager.
- ◆ Initializing the PIO connection with the PIO\_Init module
- ◆ Control of Compax3 via the digital PIOs and
- ◆ setpoint assignment via the analog PIOs

**Related programs:**

- ◆ ..\Examples\C3\_mit\_PIOs\T30\_MasterPIO\_ID2.C3P
- ◆ ..\Examples\C3\_mit\_PIOs\C3\_PIO\_CONNECTION\_TEST.pro

**Test setup:** A PIO-347 for CANopen with:

- ◆ 1 PIO-602 (24V DC feed)
- ◆ 2 PIO-402 (8 digital inputs) for operation wired to a switch box
- ◆ 6 PIO-504 (24 digital outputs)
- ◆ 1 PIO-468 (4 analog inputs)
- ◆ 1 PIO-550 (2 analog outputs) analog output 0 is wired with analog input 0 for setpoint definition
- ◆ 1 PIO-600 (Bus terminal)
- ◆ a 24V power supply unit
- ◆ a C3 S025 F10 I21 T30 M11 with power- and 24V-cable
- ◆ a motor SMH 60 60 1,4...4 with motor- and resolver cable
- ◆ a CAN-bus cable for the connection of the Compax3 with the PIO coupler.
- ◆ a serial cable for the connection of the Compax3 with the PC
- ◆ a switch box for the operation of the 8 digital inputs of the PIOs.

**Settings:**

- ◆ Baud rate = 1Mbit
- ◆ Node address of the PIO = 5 (setting via the address switch on the device)
- ◆ Node address of the C3 = 2 (setting via the address switch on the device)

**Control interface:**

Digital input	Function	Digital output	Function
0	Energize axis	0	Axis is energized
1	Travel to MN (home)	1	MN (home) is accessed
2	Start MoveVelocity	2	Setpoint speed reached
3	Stop	3	Stop is present
4	JOG +	4	Manual function active
5	JOG -	5	MoveVelocity aborted
6	Free	6	Global module error display
7	Error reset	7	Error is present
Analog input		Analog output	
0	Setpoint speed		Setpoint speed specification

#### Additional Compax3 settings:

- ◆ Array\_Col03\_Row01=1; activates the PIO\_Init module
- ◆ Array\_Col03\_Row02=5; address of the PIO
- ◆ Array\_Col03\_Row03=10; Specification for analog output0 => setpoint speed specification

If these values are stored in the Compax3, the PIO will be automatically initialized after Power On and started for PDO data exchange with Compax3.

**Solution:**

