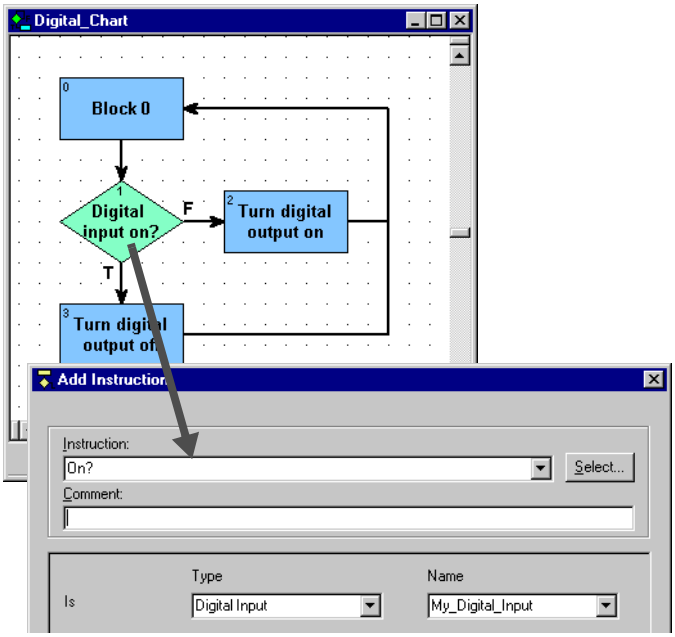
Beginner's Guide to OptoControl Commands

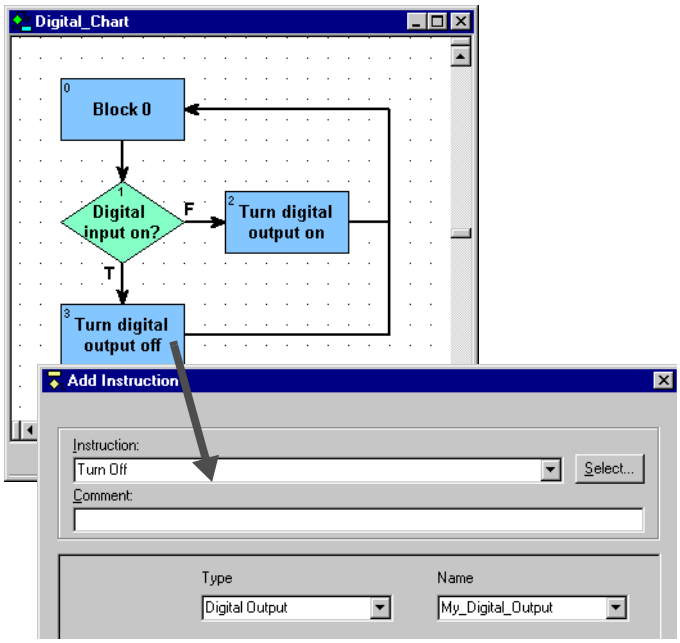
Checking the Status of a Digital Input Point

The easiest way to check the status of a digital input point is to use the conditions On? and Off?



Turning a Digital Output Point On or Off

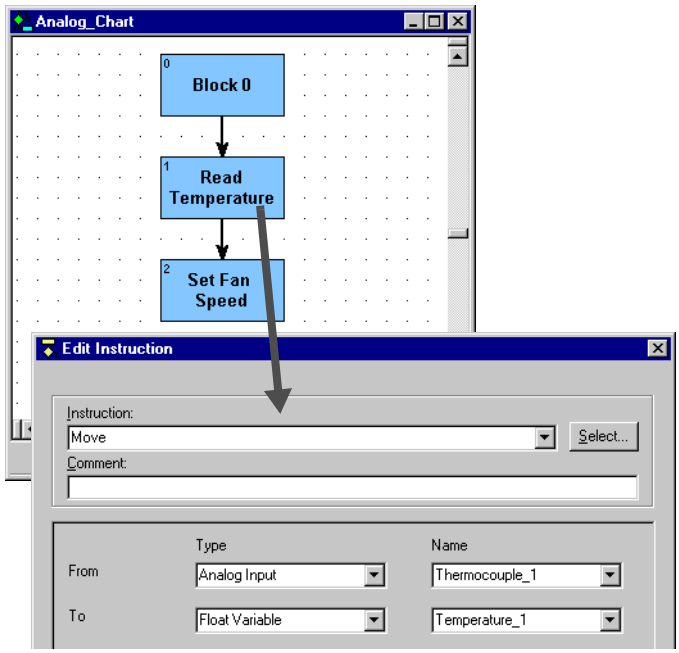
There are many ways to turn a digital output point on or off. An easy way is to use the commands Turn On and Turn Off.



You can do much more with Opto 22 digital points than just turn them on or off. You can also work with counters, pulses, latches, frequencies, time-proportional outputs, and more. For more information, see Chapter 10, "Programming with Commands," in the *OptoControl User's Guide*.

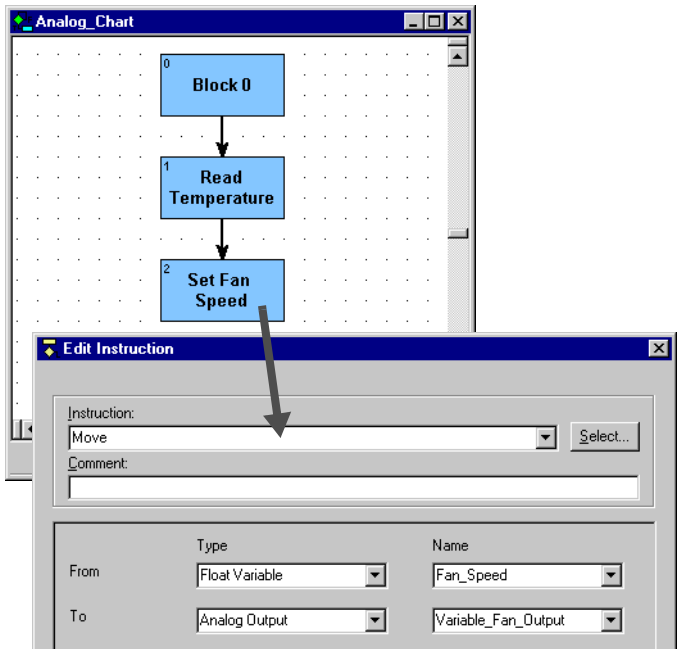
Reading the Value of an Analog Input Point

The easiest way to read the value of an analog input point is to use the Move command to move the value from the analog point to a float variable.



Writing a Value to an Analog Output Point

The easiest way to write a value to an analog output point is to use the Move command to move the value from a float variable to the analog output channel.



See the reverse side of this card for other Analog Point commands.

Frequently Used OptoControl Commands

When you're ready to go beyond Turn Off, Turn On, and Move, try some of the commands listed below. These are just some of the many commands available in OptoControl™ 4.1. You may also want to try using commands in OptoScript™ code. See Chapter 11 in the *OptoControl User's Guide* for details on OptoScript.

For complete information about all commands, see the *OptoControl Command Reference*. Before using commands that are new to you, read the useful tips in the *OptoControl User's Guide*, Chapter 10.

Miscellaneous Commands:

- Comment (Block)
- Comment (Single Line)
- Delay (mSec)
- Delay (Sec)

Chart Commands:

- Start Chart
- Stop Chart
- Call Chart

String Commands:

- Move String
- Append String to String
- Append Character to String
- Convert Float to String
- Convert Number to String
- Convert String to Float
- Convert String to Integer 32

Mathematical Commands:

- Add
- Subtract
- Multiply
- Divide
- Decrement Variable
- Increment Variable

Logical Commands:

- Equal?
- Not Equal?
- Greater?
- Less?
- Greater Than or Equal?
- Less Than or Equal?
- Within Limits?

Miscellaneous Timer Commands:

- Set Down Timer Preset Value
- Set Up Timer Target Value
- Start Timer
- Down Timer Expired?
- Up Timer Target Time Reached?

Time and Date Commands:

- Get Day
- Get Hours
- Get Minutes
- Get Seconds

Additional Digital Commands:

- Start Counter
- Get Counter
- Get & Clear Counter
- Start Quadrature Counter
- Get Quadrature Counter
- Get & Clear Quadrature Counter
- Generate N Pulses*
- Set TPO Percent*
- Set TPO Period*

Commands Used with Tables:

- Move Analog I/O Unit to Table
- Move Table to Analog I/O Unit
- Move Digital I/O Unit to Table Element
- Move Table Element to Digital I/O Unit
- Move Mixed I/O Unit to Table
- Move Table to Mixed I/O Unit
- Move from String Table
- Move to String Table
- Move from Table Element
- Move to Table Element
- Move Table Element to Table
- Equal to Table Element?
- Greater Than Table Element?
- Greater Than or Equal to Table Element?
- Less Than Table Element?
- Not Equal to Table Element?

Additional Logical Commands:

- AND
- NOT
- OR
- XOR
- NOT?
- OR?
- XOR?
- Set Variable False
- Set Variable True
- Variable False?
- Variable True?
- Bit Set
- Bit Clear
- Bit Off?
- Bit On?

Pointer Commands:

- Move to Pointer
- Move to Pointer Table
- Move from Pointer Table Element

**Not available on SNAP Ethernet-based I/O units.*

Serial Communication Commands:

- Configure Port
- Get Number of Characters Waiting on Serial or ARCNET Port
- Clear Receive Buffer
- Receive Character Via Serial Port
- Receive String Via Serial Port
- Receive Table Via Serial Port
- Transmit Character Via Serial Port
- Transmit String Via Serial Port
- Transmit Table Via Serial Port
- Transmit/Receive String Via Serial Port

ARCNET Communication Commands:

- Receive String Via ARCNET
- Transmit String Via ARCNET
- Receive Table Via ARCNET
- Transmit Table Via ARCNET
- Set ARCNET Peer Destination Address
- Get ARCNET Peer Destination Address

Analog Point Commands:

- Calculate & Set Analog Gain
- Calculate & Set Analog Offset
- Set Analog Totalizer Rate*
- Get Analog Totalizer Value*
- Get & Clear Analog Totalizer Value*

PID Commands:

- Set PID Setpoint*
- Set PID Input*
- Set PID P Term*
- Set PID I Term*
- Set PID D Term*
- Set PID Mode to Auto*
- Set PID Mode to Manual*

Controller Commands:

- Error?
- Error on I/O Unit?
- Remove Current Error and Point to Next Error
- Enable I/O Unit Causing Current Error

Simulation Commands:

- Enable Communication to All I/O Units

FactoryFloor
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