

Data Types

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In the Studio 5000 Logix Designer® application, predefined tags for Input and Output data types have a structure that corresponds to the switch selected when it was added to the I/O tree. Its members are named in accordance with the port names.

You can disable a switch port by setting the corresponding bit in the output tag. The output bits are applied every time that the switch receives the output data from the controller when the controller is in Run mode. When the controller is in Program mode, the output bits are not applied.

The port is enabled if the corresponding output bit is 0. If you enable or disable a port by using Device Manager or the CLI, the port setting can be overridden by the output bits the next time they are applied. The output bits always take precedence, regardless of whether Device Manager or the CLI is used to enable or disable the port.

The following tables list module-defined data types for Stratix® 2500 switches. The tables include information for input (I) and output (O).

1783-LMS5 Data Types

Table 66 - Input Data Types

AB:STRATIX_2500_5PORT_MANAGED:I:0			
Member Name	Type	Default Display Style	Valid Values
Fault	DINT	Binary	
AnyPortConnected	BOOL	Decimal	LinkStatus:0
PortFal_1Connected	BOOL	Decimal	LinkStatus:1
PortFal_2Connected	BOOL	Decimal	LinkStatus:2
PortFal_3Connected	BOOL	Decimal	LinkStatus:3
PortFal_4Connected	BOOL	Decimal	LinkStatus:4
PortFal_5Connected	BOOL	Decimal	LinkStatus:5
AnyPortUnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:0
PortFal_1UnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:1
PortFal_2UnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:2
PortFal_3UnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:3
PortFal_4UnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:4
PortFal_5UnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:5
AnyPortThreshold	BOOL	Decimal	ThresholdExceeded:0

Table 66 - Input Data Types (continued)

AB:STRATIX_2500_5PORT_MANAGED:I:0			
Member Name	Type	Default Display Style	Valid Values
PortFal_1Threshold	BOOL	Decimal	ThresholdExceeded:1
PortFal_2Threshold	BOOL	Decimal	ThresholdExceeded:2
PortFal_3Threshold	BOOL	Decimal	ThresholdExceeded:3
PortFal_4Threshold	BOOL	Decimal	ThresholdExceeded:4
PortFal_5Threshold	BOOL	Decimal	ThresholdExceeded:5
AllPortsUtilization	SINT	Decimal	
PortFal_1Utilization	SINT	Decimal	
PortFal_2Utilization	SINT	Decimal	
PortFal_3Utilization	SINT	Decimal	
PortFal_4Utilization	SINT	Decimal	
PortFal_5Utilization	SINT	Decimal	
MajorAlarmRelay	BOOL	Decimal	AlarmRelay:0
MulticastGroupActive	DINT	Binary	

Table 67 - Output Data Types

AB:STRATIX_2500_5PORT_MANAGED:O:0			
Member Name	Type	Default Display Style	Valid Values
AllPortsDisabled	BOOL	Decimal	DisablePort:0
PortFal_1Disable	BOOL	Decimal	DisablePort:1
PortFal_2Disable	BOOL	Decimal	DisablePort:2
PortFal_3Disable	BOOL	Decimal	DisablePort:3
PortFal_4Disable	BOOL	Decimal	DisablePort:4
PortFal_5Disable	BOOL	Decimal	DisablePort:5

1783-LMS8 Data Types

Table 68 - Input Data Types

AB:STRATIX_2500_8PORT_MANAGED:I:0			
Member Name	Type	Default Display Style	Valid Values
Fault	DINT	Binary	
AnyPortConnected	BOOL	Decimal	LinkStatus:0
PortFal_1Connected	BOOL	Decimal	LinkStatus:1
PortFal_2Connected	BOOL	Decimal	LinkStatus:2
PortFal_3Connected	BOOL	Decimal	LinkStatus:3
PortFal_4Connected	BOOL	Decimal	LinkStatus:4
PortFal_5Connected	BOOL	Decimal	LinkStatus:5
PortFal_6Connected	BOOL	Decimal	LinkStatus:6
PortFal_7Connected	BOOL	Decimal	LinkStatus:7
PortFal_8Connected	BOOL	Decimal	LinkStatus:8
AnyPortUnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:0
PortFal_1UnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:1
PortFal_2UnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:2
PortFal_3UnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:3
PortFal_4UnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:4
PortFal_5UnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:5
PortFal_6UnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:6
PortFal_7UnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:7

Table 68 - Input Data Types (continued)

AB:STRATIX_2500_8PORT_MANAGED:I:0			
Member Name	Type	Default Display Style	Valid Values
PortFal_8UnauthorizedDevice	BOOL	Decimal	UnauthorizedDevice:8
AnyPortThreshold	BOOL	Decimal	ThresholdExceeded:0
PortFal_1Threshold	BOOL	Decimal	ThresholdExceeded:1
PortFal_2Threshold	BOOL	Decimal	ThresholdExceeded:2
PortFal_3Threshold	BOOL	Decimal	ThresholdExceeded:3
PortFal_4Threshold	BOOL	Decimal	ThresholdExceeded:4
PortFal_5Threshold	BOOL	Decimal	ThresholdExceeded:5
PortFal_6Threshold	BOOL	Decimal	ThresholdExceeded:6
PortFal_7Threshold	BOOL	Decimal	ThresholdExceeded:7
PortFal_8Threshold	BOOL	Decimal	ThresholdExceeded:8
AllPortsUtilization	SINT	Decimal	
PortFal_1Utilization	SINT	Decimal	
PortFal_2Utilization	SINT	Decimal	
PortFal_3Utilization	SINT	Decimal	
PortFal_4Utilization	SINT	Decimal	
PortFal_5Utilization	SINT	Decimal	
PortFal_6Utilization	SINT	Decimal	
PortFal_7Utilization	SINT	Decimal	
PortFal_8Utilization	SINT	Decimal	
MajorAlarmRelay	BOOL	Decimal	AlarmRelay:0
MulticastGroupActive	DINT	Binary	

Table 69 - Output Data Types

AB:STRATIX_2500_8PORT_MANAGED:O:0			
Member Name	Type	Default Display Style	Valid Values
AllPortsDisabled	BOOL	Decimal	DisablePort:0
PortFal_1Disable	BOOL	Decimal	DisablePort:1
PortFal_2Disable	BOOL	Decimal	DisablePort:2
PortFal_3Disable	BOOL	Decimal	DisablePort:3
PortFal_4Disable	BOOL	Decimal	DisablePort:4
PortFal_5Disable	BOOL	Decimal	DisablePort:5
PortFal_6Disable	BOOL	Decimal	DisablePort:6
PortFal_7Disable	BOOL	Decimal	DisablePort:7
PortFal_8Disable	BOOL	Decimal	DisablePort:8

Notes:

Port Assignments for CIP Data

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The following tables identify the instance numbers of the Ethernet link objects that are associated with each port on the switch. Instance 0 does not apply to all ports as it does for bitmaps.

The bit numbers identify each port when they are contained in a structure of all ports, such as in the output assembly. Bit 0 refers to any or all ports.

1783-LMS5 Port Assignments

Bit	Port
0	Any/All ports
1	Fa1/1
2	Fa1/2
3	Fa1/3
4	Fa1/4
5	Fa1/5

1783-LMS8 Port Assignments

Bit	Port
0	Any/All ports
1	Fa1/1
2	Fa1/2
3	Fa1/3
4	Fa1/4
5	Fa1/5
6	Fa1/6
7	Fa1/7
8	Fa1/8

Notes:

Port Numbering

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The port ID consists of the following:

- Port type (Fast Ethernet for 10/100 Mbps ports)
- Unit number (always 1)
- Port number (1...8, depending on the catalog number)

Fast Ethernet is abbreviated as Fa.

1783-LMS5 Port Numbering

Port Numbering on Switch Labels	Port Numbering in config.txt Text File
1	Fa1/1
2	Fa1/2
3	Fa1/3
4	Fa1/4
5	Fa1/5

1783-LMS8 Port Numbering

Port Numbering on Switch Labels	Port Numbering in config.txt Text File
1	Fa1/1
2	Fa1/2
3	Fa1/3
4	Fa1/4
5	Fa1/5
6	Fa1/6
7	Fa1/7
8	Fa1/8