Exception, Fault and Alarm Attributes

These are the exception, fault, and alarm related attributes associated with a Motion Control Axis. Exceptions are conditions that can occur during axis operation that have the potential of generating faults or alarms based on the Exception Action configuration.

CIP Axis Faults

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - All	Get/GSV	T	LWORD	-	-	-	Refer to Standard Exceptions

A bit map that represents the state of all standard runtime faults. The bit map is identical to that of the CIP Axis Exceptions attribute. Fault bits when set are latched until a fault reset occurs. A fault reset clears the runtime fault bits, but the bits set again immediately if the underlying exception condition is still present. Any exceptions whose CIP Axis Exception Action is configured to ignore or report as alarms do not appear in this attribute.

CIP Axis Faults 2

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - G Optional - NED	Get/GSV	T	LWORD	-	-	-	Refer to Standard Exceptions

This attributes provides a 64-bit extension to the CIP Axis Faults attribute bit map representing the state of all standard runtime faults. This bit map is identical to that of the CIP Axis Exceptions 2 attribute. Fault bits when set are latched until a fault reset occurs. A fault reset clears the runtime fault bits, but the bits set again immediately if the underlying exception condition is still present.

Any exceptions whose CIP Axis Exception Action is configured to ignore or report as alarms do not appear in this attribute.

CIP Axis Faults - RA

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - All	Get/GSV	T	LWORD	-	-	-	Refer to Rockwell Automation Specific Exceptions

A bit map that represents the state of all Rockwell Automation specific runtime faults. Fault bits when set are latched until a fault reset occurs. A fault reset clears the runtime fault bits, but the bits set again immediately if the underlying exception condition is still present. Any exceptions whose CIP Axis Exception Action is configured to ignore or report as alarms do not appear in this attribute.

CIP Axis Faults 2 - RA

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Required - G Optional - NED	Get/GSV	T	LWORD	-	-	-	Refer to Rockwell Automation Specific Exceptions

This attributes provides a 64-bit extension to the CIP Axis Faults 2 attribute bit map that represents the state of all Rockwell Automation specific runtime faults. Fault bits when set are latched until a fault reset occurs. A fault reset clears the runtime fault bits, but the bits set again immediately if the underlying exception condition is still present. Any exceptions whose CIP Axis Exception Action is configured to ignore or report as alarms do not appear in this attribute.

CIP Axis Alarms

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - All	Get/GSV	T	LWORD	-	-	-	Refer to Standard Exceptions

A bit map that represents the current state of all standard alarm conditions. The bit map is identical to that of the CIP Axis Exceptions attribute. Only exception conditions whose Axis Exception Action is configured to report as an alarm appear in this attribute, and will not be reported in the CIP Axis Faults attribute. Alarm bits when set are not latched and will clear as soon as the underlying exception condition is corrected.

CIP Axis Alarms 2

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional - All	Get/GSV	T	LWORD	-	-	-	Refer to Standard Exceptions

This attributes provides a 64-bit extension to the CIP Axis Alarms attribute bit map representing the current state of all standard alarm conditions. The bit map is identical to that of the CIP Axis Exceptions attribute. Only exception conditions whose CIP Axis Exception Action is configured to report as an alarm appear in this attribute, and will not be reported in the CIP Axis Faults attribute. Alarm bits when set are not latched and will clear as soon as the underlying exception condition is corrected.

CIP Axis Alarms - RA

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional-All	Get/GSV	T	LWORD	-	-	-	Refer to Rockwell Automation Specific Exceptions

A bit map that represents the current state of all Rockwell Automation specific alarm conditions. Only exception conditions whose Axis Exception Action is configured to report as an alarm appear in this attribute, and will not be reported in the CIP Axis Faults attribute. Alarm bits when set are not latched and will clear as soon as the underlying

exception condition is corrected.

CIP Axis Alarms 2 - RA

Usage	Access	T	Data Type	Default	Min	Max	Semantics of Values
Optional-All	Get/GSV	T	LWORD	-	-	-	Refer to Rockwell Automation Specific Exceptions

This attributes provides a 64-bit extension to the CIP Axis Alarms 2 RA attribute bit map that represents the current state of all Rockwell Automation specific alarm conditions. Only exception conditions whose CIP Axis Exception Action is configured to report as an alarm appear in this attribute, and will not be reported in the CIP Axis Faults attribute. Alarm bits when set are not latched and will clear as soon as the underlying exception condition is corrected.

See also

Exceptions

Module Node Fault and Alarm Attributes

Standard Exceptions

Rockwell Automation Specific Exceptions

How are we doing?