Johnson Controls

Object Library

S300 Trunk Object

S300 TRUNK OBJECT

INTRODUCTION

The S300 Trunk object is an S300 integration object that combines all bus-wide settings and diagnostic information.
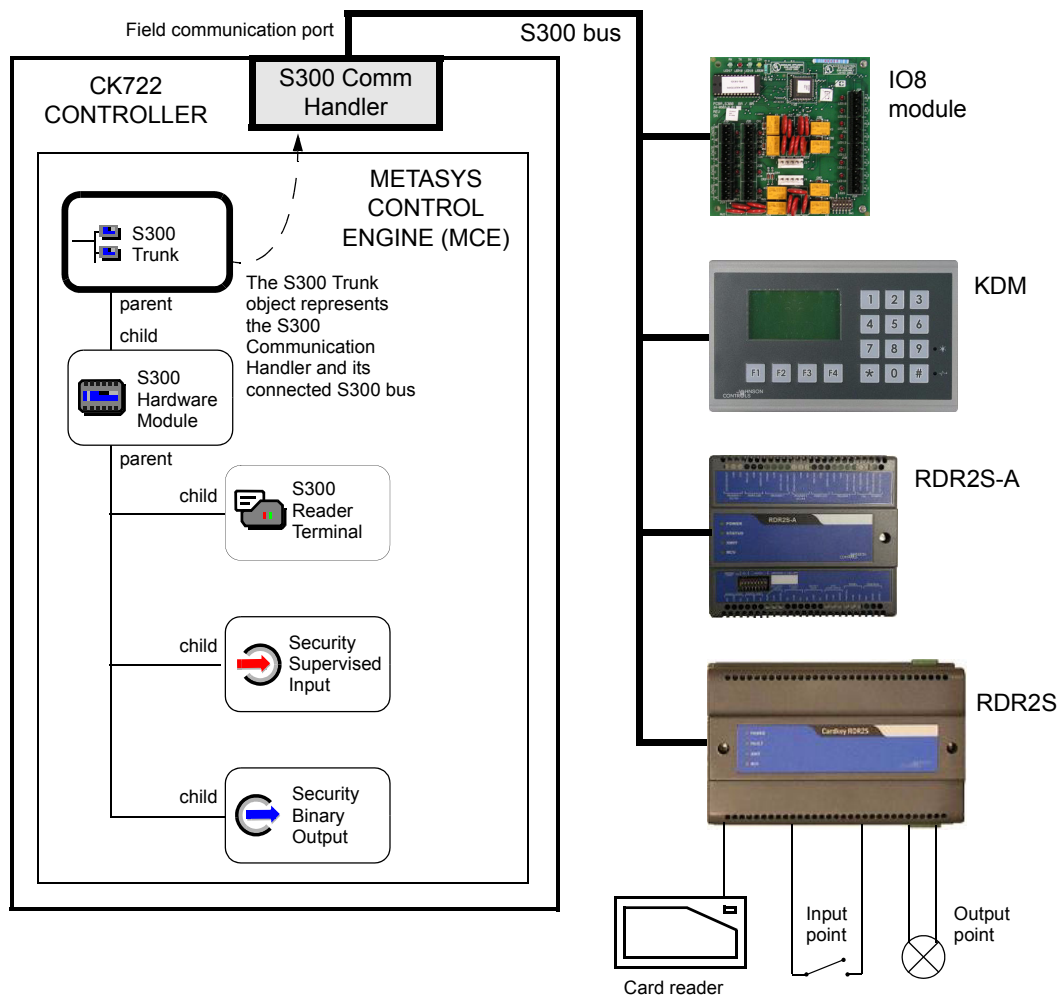

Figure 1: S300 Trunk Object

There are three types of objects directly involved in S300 integration:

- Integration type object: S300 Trunk

- Field device type object: S300 Hardware Module

- Field point type objects: S300 Reader Terminal, Keypad/Display, Security Binary Output, and Security Supervised Input

ATTRIBUTES

This section describes visible attributes specific to the S300 Trunk object. This object also contains:

- Attributes common to all objects in the P2000 Security Management System. For details, see the *General Object Information* document.

- Internal attributes, which are invisible to the user and cannot be modified directly, but may be referred to throughout this document.

Table 1: S300 Trunk Object Attributes

Attribute Name	Attribute Number	Data Type	Notes	Initial Value	Values/Options /Range
Average Loop Time	3742	Unsigned32	F	-	In milliseconds
Baud Rate	1157	Enumeration	WCA	1	0 = 9600 Baud 1 = 19200 Baud
Binary Output Objects	3741	Unsigned16	-	-	-
Buffer Overflows	1144	Unsigned32	-	-	-
Checksum Errors	1148	Unsigned32	-	-	-
Clear Statistics	2427	Boolean	W	-	-
Date	548	Date	-	-	-
Framing Errors	1146	Unsigned32	-	-	-
Hardware Module Objects	3738	Unsigned8	-	-	-
Hardware Overflows	1145	Unsigned32	-	-	-
Keypad Display Objects	4040	Unsigned16	-	-	-
Latch Statistics	2426	Boolean	W	-	-
Message Receives	1143	Unsigned32	-	-	-
Message Timeout	1165	Unsigned16	WCA	200	In milliseconds 50 to 5,000
Message Transmits	1142	Unsigned32	-	-	-
Offlines	3744	Unsigned32	-	-	-
Present Value	85	Unsigned8	F	-	0 - 100%
Reader Terminal Objects	3739	Unsigned16	-	-	-
Reset Date	1141	Date	-	-	-

Table 1: S300 Trunk Object Attributes

Attribute Name	Attribute Number	Data Type	Notes	Initial Value	Values/Options /Range
Reset Time	1140	Time	-	-	-
Retries	1162	Unsigned8	WCA	3	In milliseconds 0 to 10
Supervised Input Objects	3740	Unsigned16	-	-	-
Time	547	Time	-	-	-
Timeouts	3743	Unsigned32	-	-	-
Transmit Errors	32598	Unsigned32	-	-	-
Transmits Per Minute	1217	Unsigned16	F	-	-
Trunk Number	549	Unsigned8	WCA	1	1 or 2
Turnaround Time	3830	Unsigned8	WCA	2	In milliseconds 0 to 100

A - Archive, C - Configurable, F - PMI (Person/Machine Interface) refreshing, W - Writable

Average Loop Time – Indicates how many milliseconds it takes to complete one round robin loop when talking to the S300 hardware modules. This attribute is computed and updated once a minute by forming the average of all loop times during that minute.

Baud Rate – Specifies the baud rate that is used on the trunk.

Binary Output Objects – Indicates the total number of S300 Output objects defined for the trunk.

Buffer Overflows – Indicates how many messages were corrupted by a buffer overflow.

Checksum Errors – Indicates how many messages were corrupted by a checksum error.

Clear Statistics – Resets the S300 trunk statistics as well as all hardware module statistics when written to "True."

Date – Indicates the local date when the S300 trunk statistics were last updated.

Framing Errors – Indicates how many messages were corrupted by a framing error.

Hardware Module Objects – Indicates the number of S300 Hardware Module objects defined for the trunk.

Hardware Overflows – Indicates how many messages were corrupted by a hardware overflow.

Keypad Display Objects – Indicates the total number of Intrusion Keypad/Display objects defined for the trunk.

Latch Statistics – Updates the S300 trunk statistics as well as all hardware module statistics when written to "True."

Message Receives – Indicates how many incoming messages were successfully received.

Message Timeout – Specifies the time in milliseconds that the receiver waits for the first byte of the response.

Message Transmits – Indicates how many outgoing messages were successfully sent out.

Offlines – Indicates how many times any hardware module transitioned from the online into the offline state.

Present Value – Indicates the ratio of online and operational hardware modules to defined hardware modules.

Reader Terminal Objects – Indicates the total number of S300 Reader Terminal objects defined for the trunk.

Reset Date – Indicates the local date when the S300 trunk statistics were last reset.

Reset Time – Indicates the local time when the S300 trunk statistics were last reset.

Retries – Specifies how often a failed message is retransmitted before declaring the hardware module offline.

Supervised Input Objects – Indicates the total number of Security Supervised Input objects defined for the trunk.

Time – Indicates the local time when the S300 trunk statistics were last updated.

Timeouts – Indicates how many outgoing messages were not replied to.

Transmit Errors – Indicates how many outgoing messages could not be sent.

Transmits Per Minute – Indicates how many messages were sent out during the last minute. This attribute is computed and updated once a minute.

Trunk Number – Specifies the trunk that this object represents. It thereby specifies the physical port on the supervisory controller.

Turnaround Time – Specifies the time in milliseconds that the slave needs to wait before sending the first byte of the response.

COMMANDS

This section describes commands that can be issued to this object from SCT.

Table 2: S300 Trunk Object Commands

Command Name	Description
Latch Statistics	Writes the *Latch Statistics* attribute to "True."
Clear Statistics	Writes the *Clear Statistics* attribute to "True."
Change Attribute	See the description below.

The Change Attribute is a generic command available for writing the attributes of an object. It is mainly used to change an attribute value from those features which work only with commands. For the sole purpose of giving a generic example, there is no command defined to change the *Notify Priority* attribute of an object. Change Attribute could, therefore, be used to change the *Notify Priority* attribute through an interlock or multiple command, both features which require commands to be entered. The Change Attribute command requires two parameters:

- Attribute - This parameter specifies which attribute of the object is to be written. Only writable attributes may be changed by this command.

- New value - This parameter specifies new value to be written and must be the same data type as the attribute. The only data types allowed in this command are those allowed as command parameters. A command priority can be specified if the attribute to be changed is a prioritized attribute.

VIEWS

This section illustrates how the System Configuration Tool displays properties of the S300 Trunk object. This screen also allows you to set the values of configurable attributes. For more information refer to the *System Configuration Tool (SCT)* manual.

Figure 2: Configuration View