

SIEMENS

***MK8000 OPC Server Interface
Specification for STT11CPU***

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STT11CPU

STT11 CPU is the main unit of the STT11 system, designed for performing automatic actions (called `fire actuations`) following the detection of a fire alarm.

It is made up of a physical and logical tree.

The physical component list includes the physical control unit with power supply, the I/O boards, and the local operating terminal.

The fire system is logically organised in a 4-level structure similar to the one used by AlgoRex.

The structure is based on a geographical and functional tree:

- Area;
- Sections, which can be Security Section or Input/Output Section;
- Functions, which can be Security Function, Input Function, or Output Function;
- Elements, which can be Security Element, Input Element, or Output Element.

System limits:

- 1 Area;
- 99 Sections;
- 192 Functions;
- 128 elements.

History:

v1.08 : Elements local properties "fault", "in command", "command OK", "fault safety position" and "fault wait position" are now propagated using new common properties "element..."

v1.09 : Updated to fit CNAP v2.3u

STT11 Application - (GSNOAPMN)

The 'STT11 Application' object represents the entire STT11 and the geographical area covered by the fire protection.

| Multistate | Commands | | | | | | | | | | |
|------------|----------|---------|-------|----------|---------|-----------|----------|----------|----------|-----------|----------|
| | 1-Ack | 2-Reset | 4-Arm | 8-Disarm | 16-Test | 32-Active | 64-Quiet | 128-Disc | 256-Conn | 512-Block | 1024-Man |

1000 Quiet ✓

No abnormal condition present.

1351 Anomaly Ack ✓

The anomaly condition indicates that a recoverable communication fault occurred in one of the two connections to the loop network (Cerloop).

1369 Not Aligned

The control unit is not aligned to the field.

1370 Alignment In Progress

The alignment phase is in progress.

1999 Fault Ack ✓

A faulty condition has been detected in the STT11.

2051 Vitality Fault ✓

Missing vitality message (heartbeat): trouble in the communication link with STT11.

Unidentified event - (SYNOUDGE)

The `unidentified event` indicates the conditions which could not be associated with any known object in the current structure. This typically happens when the logical tree imported into the system configuration does not exactly match the local STT11 set

| Multistate | Commands | | | | | | | | | | | |
|------------|----------|---------|-------|----------|---------|-----------|----------|----------|----------|-----------|----------|-------------|
| | 1-Ack | 2-Reset | 4-Arm | 8-Disarm | 16-Test | 32-Active | 64-Quiet | 128-Disc | 256-Conn | 512-Block | 1024-Man | 2048-Status |

401 Alarm & Tamper Ack

Alarm + tamper conditions from unknown STT11 object.

501 Alarm Ack

Alarm condition from unknown STT11 object.

511 Alarm & Fault Ack

Alarm + fault conditions from unknown STT11 object.

901 Tamper Ack

Tamper condition from unknown STT11 object.

911 Tamper & Fault Ack

Tamper + fault conditions from unknown STT11 object.

1000 Quiet

No abnormal condition present.

1300 Disarmed

Disarmed condition from unknown STT11 object.

1351 Anomaly Ack

Anomaly condition from unknown STT11 object.

1999 Fault Ack

Fault condition from unknown STT11 object.

Control unit - (HWNOCCUD)

The `Control unit` object presents the possible faulty conditions related to the STT11 control unit and to the general health of the physical subsystem.

| Multistate | Commands | | | | | | | | | | | |
|------------|----------|---------|-------|----------|---------|-----------|----------|----------|----------|-----------|----------|-------------|
| | 1-Ack | 2-Reset | 4-Arm | 8-Disarm | 16-Test | 32-Active | 64-Quiet | 128-Disc | 256-Conn | 512-Block | 1024-Man | 2048-Status |

1000 Quiet

No abnormal condition present.

1999 Fault Ack

A faulty condition has been detected in the STT11 CPU unit and has been acknowledged.

2000 Fault Unack ✓

A faulty condition has been detected in the STT11 CPU unit and should be acknowledged by the operator.

Power supply - (HWNOPSGE)

The 'Power supply' object represents the possible faulty conditions of the battery-backed up power supply unit.

| Multistate | Commands | | | | | | | | | | | |
|------------|----------|---------|-------|----------|---------|-----------|----------|----------|----------|-----------|----------|-------------|
| | 1-Ack | 2-Reset | 4-Arm | 8-Disarm | 16-Test | 32-Active | 64-Quiet | 128-Disc | 256-Conn | 512-Block | 1024-Man | 2048-Status |

1000 Quiet

No abnormal condition present.

1999 Fault Ack

A faulty condition has been detected in the power supply module and has been acknowledged.

2000 Fault Unack ✓

A faulty condition has been detected in the power supply module and should be acknowledged by the operator.

I/O Board - (HWNOIBGE)

The 'Power supply' object represents the possible faulty conditions of the input/output boards.

| Multistate | Commands | | | | | | | | | | | |
|------------|----------|---------|-------|----------|---------|-----------|----------|----------|----------|-----------|----------|-------------|
| | 1-Ack | 2-Reset | 4-Arm | 8-Disarm | 16-Test | 32-Active | 64-Quiet | 128-Disc | 256-Conn | 512-Block | 1024-Man | 2048-Status |

1000 Quiet

No abnormal condition present.

1999 Fault Ack

A faulty condition has been detected in the STT11 Input/Output board and has been acknowledged.

2000 Fault Unack

✓

A faulty condition has been detected in the STT11 Input/Output board and should be acknowledged by the operator.

Terminal - (HWNOCTGE)

The `Terminal` object represents the conditions of the local panel.

| Multistate | Commands | | | | | | | | | | | |
|------------|----------|---------|-------|----------|---------|-----------|----------|----------|----------|-----------|----------|-------------|
| | 1-Ack | 2-Reset | 4-Arm | 8-Disarm | 16-Test | 32-Active | 64-Quiet | 128-Disc | 256-Conn | 512-Block | 1024-Man | 2048-Status |

1000 Quiet

No abnormal condition present.

1999 Fault Ack

A faulty condition has been detected in the STT11 terminal and has been acknowledged.

2000 Fault Unack ✓

A faulty condition has been detected in the STT11 terminal and should be acknowledged by the operator.

Area - (GSDEARGE)

The `Area` object represents the geographical area covered by the fire protection. The area is divided into a number of sections.

| Multistate | Commands | | | | | | | | | | | |
|------------|----------|---------|-------|----------|---------|-----------|----------|----------|----------|-----------|----------|-------------|
| | 1-Ack | 2-Reset | 4-Arm | 8-Disarm | 16-Test | 32-Active | 64-Quiet | 128-Disc | 256-Conn | 512-Block | 1024-Man | 2048-Status |

500 Alarm Unack ✓ ✓

An alarm has been triggered in the STT11 system, the programmed actions in the associated actions (functions) have been performed; the event should be acknowledged by the operator.

502 Alarm Unreset ✓ ✓

An alarm has been triggered in the STT11 system, the programmed actions in the associated actions (functions) have been performed; the event should be reset by the operator.

1000 Quiet ✓

No abnormal condition present

1316 Manual ✓

The STT11 system has been set into manual mode for technical activities: automatic actions will not be performed at all.

1351 Anomaly Ack ✓

The STT11 system has been partially set into manual mode: some automatic actions will not be performed

Security function - (GSDEZOG)

The 'Function' object represents a set of control actions to be performed on a physical device, e.g. closing a door, opening a valve, etc. The functions are logically made up of a number of elements.

| | Multistate | Commands | | | | | | | | | | |
|--|------------|----------|---------|-------|----------|---------|-----------|----------|----------|----------|-----------|----------|
| | | 1-Ack | 2-Reset | 4-Arm | 8-Disarm | 16-Test | 32-Active | 64-Quiet | 128-Disc | 256-Conn | 512-Block | 1024-Man |

946 Active Unack ✓ ✓ ✓

Following an alarm detection, the appropriate functions have been activated and the correspondent actions are in progress; the event should be acknowledged by the operator.

947 Active Ack ✓ ✓ ✓

Following an alarm detection, the appropriate functions have been activated and the correspondent actions are in progress; the event has been acknowledged.

948 Active Unreset ✓ ✓ ✓ ✓

Following an alarm detection, the appropriate function was activated and the correspondent actions performed; the event should now be reset by the operator.

1000 Quiet ✓ ✓ ✓ ✓

No abnormal condition present.

1305 Disarmed Ack ✓ ✓ ✓ ✓

The function has been disarmed and cannot be started; the event has been acknowledged.

1306 Disarmed Unack ✓ ✓ ✓ ✓

The function has been disarmed and cannot be started; the event should be acknowledged by the operator.

1319 Manual Ack ✓ ✓

The function has been set into manual mode: automatic action will not be performed; manual activations are still possible with an operator command; the event has been acknowledged.

1320 Manual Unack ✓ ✓ ✓

The function has been set into manual mode: automatic action will not be performed; manual activations are still possible with an operator command; the event should be acknowledged by the operator.

1998 Fault Unreset ✓ ✓ ✓

A faulty condition occurred in one of physical components involved in the function; a fault can be detected internally in the STT11 and via the missing/erroneous start/finish activation feedback; the fault event is now terminated should be reset by the operator.

1999 Fault Ack

✓

✓

A faulty condition has been detected in one of physical components involved in the function; a fault can be detected internally in the STT11 and via the missing/erroneous start/finish activation feedback; the event has been acknowledged.

2000 Fault Unack

✓

✓

✓

A faulty condition has been detected in one of physical components involved in the function;a fault can be detected internally in the STT11 and via the missing/erroneous start/finish activation feedback; the event should be acknowledged by the operator.

Element - (GSDEDEGE)

The 'Element' object represents the conditions related to a the control outputs and state inputs of a physical device, such as a door, a valve, etc.

| Multistate | Commands | | | | | | | | | | | |
|------------|----------|---------|-------|----------|---------|-----------|----------|----------|----------|-----------|----------|-------------|
| | 1-Ack | 2-Reset | 4-Arm | 8-Disarm | 16-Test | 32-Active | 64-Quiet | 128-Disc | 256-Conn | 512-Block | 1024-Man | 2048-Status |

946 Active Unack ✓ ✓

Following a function activation, the appropriate elements have been activated to perform the output control; the event should be acknowledged by the operator.

947 Active Ack ✓

Following a function activation, the appropriate elements have been activated to perform the output control; the event has been acknowledged.

1000 Quiet ✓

No abnormal condition present.

1501 Disconnected Ack ✓

The element has been excluded and cannot be used; the event has been acknowledged.

1502 Disconnected Unack ✓ ✓

The element has been excluded and cannot be used; the event should be acknowledged by the operator.

1999 Fault Ack

A faulty condition has been detected in one of physical components of the element; a fault can be detected internally in the STT11 and via the missing/erroneous start/finish activation feedback; the event has been acknowledged.

2000 Fault Unack ✓

A faulty condition has been detected in one of physical components of the element; a fault can be detected internally in the STT11 and via the missing/erroneous start/finish activation feedback; the event should be acknowledged by the operator

Input element - (IOCOINGE)

The 'Input element' object represents the conditions of a single sensor in a function object (such as a sensor in a fire door).

| Multistate | Commands | | | | | | | | | | | |
|------------|----------|---------|-------|----------|---------|-----------|----------|----------|----------|-----------|----------|-------------|
| | 1-Ack | 2-Reset | 4-Arm | 8-Disarm | 16-Test | 32-Active | 64-Quiet | 128-Disc | 256-Conn | 512-Block | 1024-Man | 2048-Status |

950 Active

✓

The element is active.

1000 Quiet

✓

The element is not active.

1501 Disconnected Ack

✓

The element has been excluded and active or fault conditions will not be reported; the event should now be reset by the operator; the event has been acknowledged.

1502 Disconnected Unack

✓

✓

The element has been excluded and active or fault conditions will not be reported; the event should now be acknowledged by the operator.

1999 Fault Ack

✓

A faulty condition has been detected on the element; the event has been acknowledged.

2000 Fault Unack

✓

✓

A faulty condition has been detected on the element; the event should be acknowledged by the operator.

Output element - (IOCOOUGE)

The 'Output element' object represents the conditions of a single actuator for a function object (such as automatic closing of a fire door).

| Multistate | Commands | | | | | | | | | | | |
|------------|----------|---------|-------|----------|---------|-----------|----------|----------|----------|-----------|----------|-------------|
| | 1-Ack | 2-Reset | 4-Arm | 8-Disarm | 16-Test | 32-Active | 64-Quiet | 128-Disc | 256-Conn | 512-Block | 1024-Man | 2048-Status |

950 Active

✓ ✓

The element is active.

1000 Quiet

✓ ✓

The element is not active.

1501 Disconnected Ack

✓

The element has been excluded and active or fault conditions will not be reported; the event should now be reset by the operator; the event has been acknowledged.

1502 Disconnected Unack

✓

✓

The element has been excluded and active or fault conditions will not be reported; the event should now be acknowledged by the operator.

1999 Fault Ack

✓

A faulty condition has been detected on the element; the event has been acknowledged.

2000 Fault Unack

✓

✓

A faulty condition has been detected on the element; the event should be acknowledged by the operator.

Siemens Switzerland Ltd
Building Technologies Group
International Headquarters
Fire Safety & Security Products
Gubelstrasse 22
CH-6301 Zug
Tel +41 41 724 24 24
Fax +41 41 724 35 22
www.sbt.siemens.com

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