



User Manual

ABC-CPU Systems

Start-up behaviour

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1 Start-up behavior

1.1 Start-up behavior X-CPU-6

The start-up behavior of the X-CPU-2 is presented in detail for the various CPU types in the following sections.

1.1.1 DB1/DX1 CPU945, CPU948

In the case of a STOP->RUN transition, the DB1 and DX1 of the X-CPU-2 are evaluated.

1.1.2 SYSPARAM-DB CPU416, CPU416/945, CPU416/948

In the case of a STOP->RUN transition, the SYSPARAM-DB is searched and evaluated starting from DB1. In mixed operation modes S7 and S5, DB1/DX1 in the S5 area is evaluated.

1.1.3 X-CPU-6 – Peripherie Detect

The CPU software CPU948 differentiates between a restart and a recovery. The periphery is only read in and shown in the process illustration of the CPU with a restart.

In the case of CPU software CPU945, CPU416, CPU416/945, CPU416/948, the periphery is read in and shown in the process illustration for each STOP/RUN transition.

1.1.4 X-CPU-6 CPU945

| | Description |
|------------------------|---|
| Switch/PG-STEP5 | CPU945 |
| Overall reset | <ul style="list-style-type: none"> - When the CPU is in RUN status, it is first set to STOP status. - The complete program (OB, FB, ...) and the data (DB, DX) are deleted. - Reset of all memory areas such as markers operating system cells. - The integrated components are created. - The parameter DBs (DB1 and DX1) are created with the default settings. - S5D image (IMAGE@ST.S5D) is loaded from the SD card when present. |
| Manual restart | - The OB21 start-up (when present) is called up with this status transition. |

| | Description |
|--------------------|--|
| Power ON | CPU945 |
| Automatic recovery | - The OB22 start-up (when present) is called up with this status transition. |

1.1.5 X-CPU-6 CPU948

| | Description |
|--------------------------------------|---|
| Switch/PG-STEP5 | CPU948 |
| Overall reset | <ul style="list-style-type: none"> - When the CPU is in RUN status, it is first set to STOP status. - The complete program (OB, FB, ...) and the data (DB, DX) are deleted. - Reset of all memory areas such as markers operating system cells. - The integrated components are created. - The parameter DBs (DB1 and DX1) are created with the default settings. - S5D image (IMAGE@ST.S5D) is loaded from the SD card when present. |
| Manual restart and automatic restart | - The OB20 start-up (when present) is called up with this status transition. |
| Manual recovery | - The OB21 start-up (when present) is called up with this status transition. |

| | Description |
|--------------------|--|
| Power ON | CPU948 |
| Automatic recovery | - The OB22 start-up (when present) is called up with this status transition. |

1.1.6 X-CPU-6 CPU416, CPU416/945, CPU416/948

| | Description |
|------------------------|---|
| Switch/PG-STEP7 | CPU416, CPU416_945, CPU416_948 |
| Overall reset | <ul style="list-style-type: none">- When the CPU is in RUN status, it is first set to STOP status.- The complete program (OB, FB, FC, ...) and the data (DB) are deleted.- Reset of all memory areas such as markers operating system cells.- The integrated components are created. |
| Manual restart | - The OB100 start-up (when present) is called up with this status transition. |
| Manual cold start | - The OB102 start-up (when present) is called up with this status transition. |

| | Description |
|----------------------------|---|
| Power ON (HWKonfig) | CPU416, CPU416_945, CPU416_948 |
| Automatic restart | - The OB100 start-up (when present) is called up with this status transition. |
| Automatic recovery | - The OB101 start-up (when present) is called up with this status transition. |
| Automatic cold start | - The OB102 start-up (when present) is called up with this status transition. |