



User Manual

ABC-CPU Systems

Asynchronous balanced mode (CPU416/945, CPU416/948)

22/2016

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1. Asynchronous balanced mode (CPU416/945, CPU416/948)

1.1 Introduction

The ABC X-CPU-6 can be ordered in the asynchronous balanced mode S7/S5 variant. For an 115U system this is the ABC X-CPU-6 CPU416/945. For a 135/155U and 150U system this is the ABC X-CPU-6 CPU416/948. In the asynchronous balanced mode, S5 and S7 programs can be processed in one run.

1.2 Conventions

| Functions | Description |
|--------------------|--|
| UC FC 40000..40255 | Calls up S5 component OB 0..255 |
| UC FC 41000..41255 | Calls up S5 component PB 0..255 |
| UC FC 42000..42255 | Calls up S5 component SB 0..255 |
| UC FC 43000..43255 | Calls up S5 component FB 0..255 (FB may not have parameters) |
| UC FC 44000..44255 | Calls up S5 component FX 0..255 (FX may not have parameters) |

| Data components | Description |
|---------------------|------------------------------|
| AUF DB 40000..40255 | opens S5 component DB 0..255 |
| AUF DB 41000..41255 | opens S5 component DX 0..255 |

| Marker | Description |
|-------------------------|---|
| z.B.: L MB 40000..40255 | <p>The following operations can directly access the S5 marker area:</p> <ul style="list-style-type: none"> - flank operations - loading/transfer operations - saving operations - linking operations <p>MB 0...255, M0.0...M255.7</p> |

| S-Marker | Description |
|-------------------------|---|
| z.B.: T MB 41000..45095 | <p>The following operations can directly access the S5 special marker area:</p> <ul style="list-style-type: none"> - flank operations - loading/transfer operations - saving operations - linking operations <p>SY 0...4095, S0.0...S4095.7</p> |

| Timer | Description |
|-------------------------|--|
| z.B.: SV T 40000..40255 | <p>The following operations can directly access the S5 timer area:</p> <ul style="list-style-type: none"> - time operations <p>T 0..255</p> |

| Counters | Description |
|------------------------|---|
| z.B.: S Z 40000..40255 | <p>The following operations can directly access the S5 counter area:</p> <ul style="list-style-type: none"> - counter operations <p>T 0..255</p> |

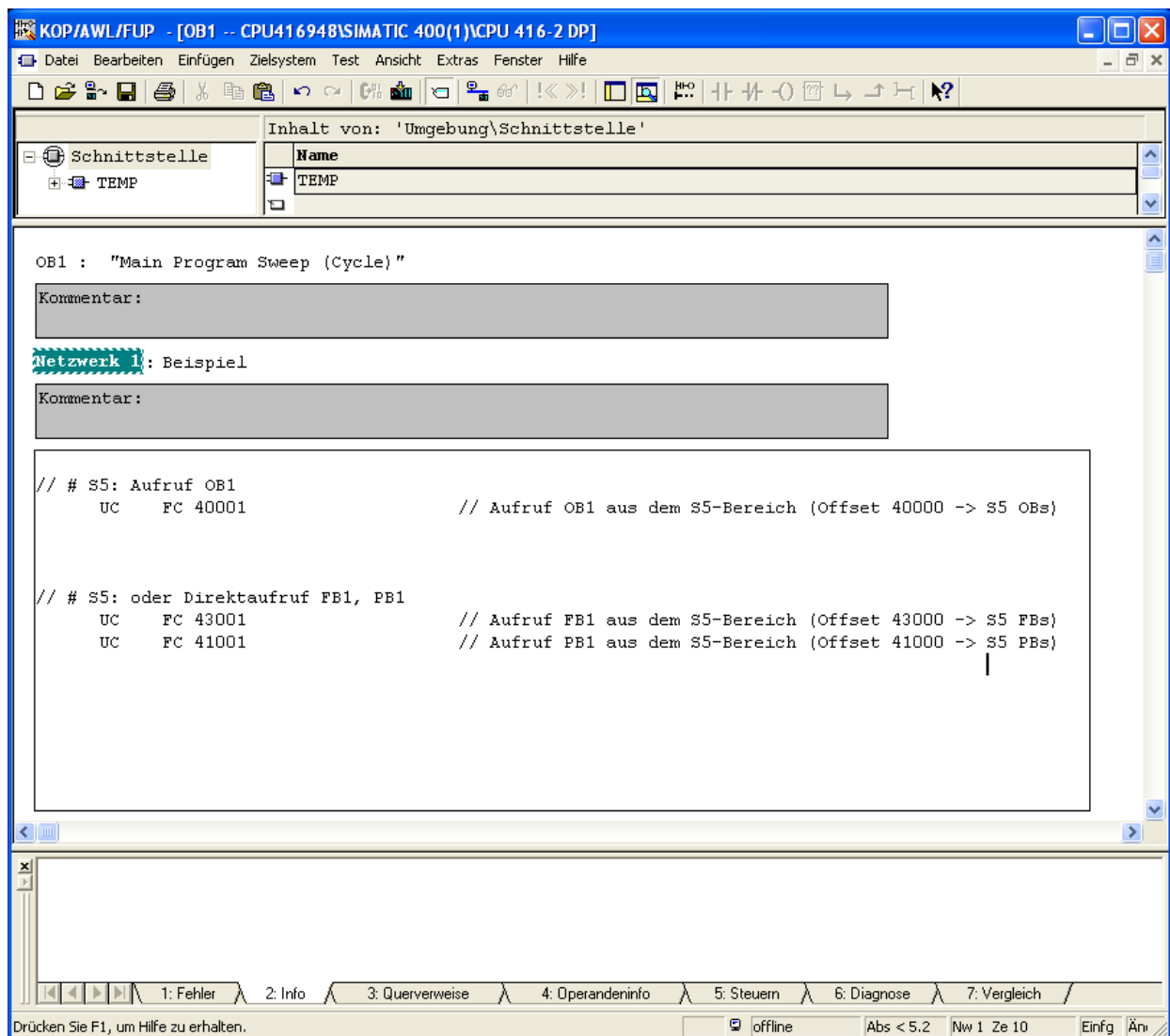
1.3 Call up S5 programs in S7 area

In the case of the ABC X-CPU-6 CPU416/945 and CPU416/948, it is primarily the S7 software that runs.

The S5 OBs (OB1, OB10..., OB20,...) are not called up in the asynchronous balanced mode. The corresponding call-ups: cyclical processing, wake-up alarms and start-up must be carried out from the S7 area.

You can find a template for the asynchronous balanced load in the samples. The samples are components of the delivery package or can be downloaded in the download area at www.abcit.eu.

S5 programs/components must be called up with special call-ups (see conventions).



1.4 Access to S5 data in the S7 area

Access in S7 to S5 data areas is realized with the Offset 40000 (see conventions).

