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## Identification

The Process Data Segment  
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## Purpose

The Process Data Segment is a per-process data base containing those per-process items which need not be in the Active Process Table but which are referenced by the hard-core supervisor at times when page faults cannot be tolerated. This section describes the contents of the Process Data Segment. Section BJ.1.00 gives the strategies used to select the proper data base for various data items.

## Discussion

The Process Data Segment (PDS) consists of two parts: the Process Data Block (PDB) and the process concealed stack. Section BJ.1.04 contains a detailed discussion of the individual items in the PDB.

The Process Concealed Stack is used in handling process interrupts (BK.2.01) and process faults (BK.3.01). It is identical in format and management to the Processor Stack, which is described in detail in BK.1.03. Because the Processor Base Segment, a per-system data base described in BK.1.04, contains ITS pointers to the Process Concealed Stack, the Process Data Segment must have the same segment number in every process.

The Process Data Segment has read/write access in the hard-core ring, and is accessible in master mode only in less privileged rings.

There are three entries into this segment used by the Fault Interceptor Module and the Interrupt Interceptor Module:

- . stb\_pointer
- . sreg\_pointer
- . scu\_pointer

At each fault or interrupt, the 645 opcodes stb, sreg, and scu are executed indirectly through these entries, thus storing the relevant data into safe places in pds. These pointers are filled in by bootstrap 2 (see BL.4.02) at system initialization, and are changed at each fault or interrupt.