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Identification

Current Ring Number Routine: get_ring_no
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Purpose

It is frequently necessary for a procedure to determine the number of the ring in which it is currently operating. The condition-handling mechanism (BD.9.04) in particular needs such information. Procedure get_ring_no is furnished by the protection mechanism to satisfy this need.

Usage

The calling sequence is

```
call get_ring_no (n);
```

with argument declared

```
dcl n fixed bin (17);
```

On return from get_ring_no, n will contain the ring number of the procedure which called get_ring_no.

Method

Get_ring_no is a ring 0 procedure. When called, it investigates the Stack frame immediately preceding its own: if that frame is a ring-crossing frame (see BD.9.01), the ring number of the caller is copied from the top entry on the Gatekeeper's <rtn_stk> into n and get_ring_no returns; if the preceding frame is not a ring-crossing one, n is set to zero and get_ring_no returns.