

MCR10136
Add Info Segment for `patch_ring_zero` Program
Revision 1.0

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1 Problem Description

The very useful program, `patch_ring_zero(prz)` has no info segment, nor any documentation in Multics manuals. Its cousin, `ring_zero_dump(rzd)`, does.

The issue is reported in this ticket: <https://multics-trac.swenson.org/ticket/148>.

2 Proposed Fix

The proposed fix is to add an info segment for this program.

The proposed info segment contents are shown below:

2023-06-17 `patch_ring_zero`, `prz`

Syntax as a command:

```
prz SEGNAME OFFSET VALUES
prz SEGNO OFFSET VALUES
```

Function: allows privileged users to patch locations in ring 0. If necessary, the descriptor segment is patched to give access to patch a write-protected segment. Only one VALUE is required, the 2nd through Nth are optional.

This command requires access to the highly privileged gate, `hphcs_`.

Arguments:

SEGNAME

is either a pathname, the name of a ring 0 segment, or an octal segment number to the segment to be patched.

OFFSET

is the (octal) offset of the first word to be patched.

VALUES

One or more (octal) values to be patched, starting at the offset specified by `OFFSET`. Only one value is required, although any number can be specified.

`SEGNO`

is the octal segment number of a segment to be patched.

This info segment will be installed in `/doc/privileged`, where other privileged program info segments, or those for programs not normally used by regular users, are installed.

3 Documentation

The new info segment is the documentation.

4 Test

No testing is necessary other than verification that the syntax matches the code, and that the info segment passes the `verify_info` checks.

5 Version History

2023-06-17	1.0	Initial version of the MCR.
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