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SET SPECEX

```
>>--Set--SPECEX--.-DEFAULT--.-ON--.------><
      |      '-OFF-'      |
      |                    |
      |'.-----.-userid-.-.-DEFAULT-.-.'
      |'-FOR-' '-*-----' |-ON-----|
      |          '-OFF-----'
```

Authorization

Privilege Class: C

Purpose

The SET SPECEX command is deprecated and might be removed in a future release of z/VM. For convenience, the SET SPECEX command will be translated to the new command SET CPPROTECT MODE2. Please see SET CPPROTECT for more information.

Use SET SPECEX to control enablement of speculative execution based on the virtual machine that is dispatched. Speculative execution is an optimization mechanism designed into the processor to improve system performance.

Operands

DEFAULT

specifies that the system-wide CPPROTECT MODE2 default is to be set.

FOR userid

FOR *

specifies that a user-specific CPPROTECT MODE2 override is to be set,

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taking precedence over the system default when the specified virtual machine is run. An asterisk refers to the virtual machine of the command issuer.

ON

OFF

indicates that speculative execution should be enabled (SPECSEX ON, which is the same as CPPROTECT MODE2 OFF) or disabled (SPECSEX OFF, which is the same as CPPROTECT MODE2 ON).

FOR userid DEFAULT

cancels the user-specific MODE2 override for the specified user.

Subsequent handling of this virtual machine will be governed by the system-wide default CPPROTECT MODE2 setting.

Usage Notes

1. For more information, see the usage notes under SET CPPROTECT.

Examples

Assuming a freshly IPLed system with the required machine support and no CP directory COMMAND statements, consider the following sequence of commands:

```
set specex default off
set specex for alice on
set specex for bob off
```

SPECSEX will be OFF (that is, CPPROTECT MODE2 will be ON) to protect against every user except ALICE: against BOB because there is a per-user override in effect, and against all others because the default is being applied.

If the following command is subsequently issued:

```
set specex default on
```

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SPECEX remains OFF (that is, CPPROTECT MODE2 remains ON) to protect against user BOB, because the override is still in effect. SPECEX remains ON (that is, CPPROTECT MODE2 remains OFF) with respect to ALICE because the override is still in effect. For all other users, MODE2 will be OFF.

Messages

- o HCP002E Invalid operand - operand
- o HCP003E Invalid option - command contains extra option(s) starting with option
- o HCP026E Operand missing or invalid
- o HCP045E userid not logged on
- o HCP1056I MODE2 ON request set, but required machine support not available
- o HCP1057I The SET SPECEX command is deprecated and might be removed in a future release of z/VM. Command will be processed as 'SET CPPROTECT MODE2 options'