

Using 'SET OBSERVER' to Monitor Console Activity

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Information taken from IBM z/VM CP Command and Utility Reference, v4R3.0, p.1265-1266

One of the problems encountered in our program design was the ability to capture console activity from various guests, such as MAINT, and pipe it back to our GUIMAIN guest for parsing, etc. This would be required to monitor for some system events.

The 'SET OBSERVER' command, added in z/VM v4R2.0, allows for the console input and output of one guest to be sent to another guest for observation. Its command line takes the following format for Class A and C users:

```
SET OBSERVER [<targetid>] [<userid> | OFF | RESET | *]
```

<targetid> is the userid of the guest whose observer status is being altered; this defaults to the guest executing the command if it is not specified.

<userid> is the user ID of the guest that is being set to observe the guest specified by <targetid>.

The OFF option removes user <targetid> from observation.

The RESET option resets the observer userid to the value specified in <targetid>'s CP directory entry,

The * option sets the observer <userid> for <targetid> (or the command issuer) to the userid of the virtual machine issuing the command.

Class G users can only change the status of their own observers.

Example 1

Executing the following command as MAINT:

```
set observer guimaint
```

Produces the following output in GUIMAIN's console:

```
HCPCFX6768I Observation of MAINT initiated for you by MAINT  
MAINT : Ready; T=0.01/0.01 06:17:54
```

```

MAINT : q cpus
MAINT : 06:19:54 CPU 00 ID FF00A8CA20660000 (BASE)
MAINT : Ready; T=0.01/0.01 06:19:54
MAINT : q n
MAINT : 06:20:31 HUB - DSC , GENTOO2 - DSC , PATCHDOT - DSC ,
CPINT - DSC
MAINT : 06:20:31 TCPIP - DSC , KERNEL2 - DSC , TEMP05 - DSC , ZSEC2
- DSC
MAINT : 06:20:31 ZSEC1 - DSC , DIRMAINT - DSC , KERNEL1 - DSC ,
XEN01 - DSC
MAINT : 06:20:31 OPERSYMP - DSC , EREP - DSC , DNSSERVE - DSC ,
GUIMAIN - L0003
MAINT : 06:20:31 MAINT - L0006
MAINT : 06:20:31 VSM - TCPIP
MAINT : Ready; T=0.01/0.01 06:20:31

```

All subsequent input and output from MAINT is sent to GUIMAIN as well.

Example 2

Executing the following command as GUIMAIN:

```
set observer maint *
```

Will set MAINT's observer userid to GUIMAIN, allowing us to observe a guest without actually executing the SET OBSERVER command from its command line.

Multiple guests can be observed by one other guest simultaneously; for instance, GUIMAIN could observe both MAINT and OPERATOR:

```

MAINT : q osa
MAINT : 06:38:53 OSA 0100 ATTACHED TO TCPIP 0100
.
.
.
MAINT : 06:38:53 OSA 0120 ATTACHED TO PATCHDOT 0802
MAINT : Ready; T=0.01/0.01 06:38:53
OPERATOR: q stor
OPERATOR: STORAGE = 8064M
OPERATOR: Ready; T=0.01/0.01 06:41:25

```