

# MISER Frequently Asked Questions

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## Host / Workstation Hardware Questions

**Q: I came in to work this morning and my (usually A or B host) was down. It kept trying to boot up, but it couldn't get past something about Queue Manager because of something about Device Full. What's up?**

**A:** The system disk is full. You have to boot up the computer in a minimum mode, and purge the disk (delete all old file versions). This will usually suffice to get the computer running again, and then you can think about deleting more files.

Please see MISER User Note: Emergency Startup for the procedure to do this.

**Q: My disk crashed on one of my workstations. How do I replace it with my blank spare disk?**

**A:** You need to copy a working system disk to your spare disk, and then run HSQPARAMS to change the identity of the computer.

For copying a working system disk to your spare disk, please see *MISER User Note: Making a System Disk-to-Disk Image Copy on an Alpha*.

For running HSQPARAMS, please see *MISER User Note: How to Use HSQPARAMS*.

**Q: I replaced the battery on my Personal Workstation 433 or 500au motherboard, and now when I turn on the computer I get a screen I have never seen before and something is obviously horribly, horribly wrong. What's up?**

**A:** The default firmware setting on the motherboard is for NT, not VMS. First of all, the console that you see with the system halted is not the SRM console (the familiar >>> prompt), but a menu-driven thing called the ARC console. You need to use the ARC console to switch consoles to SRM. Then you can do

```
>>> set os_type OpenVMS
>>> set boot_osflags 0,0
>>> set booted_osflags 0,0
>>> set auto_action halt
>>> set bootdef_dev dka0
>>> boot
```

The system should now boot VMS. Open a DECterm, shut the system back down and do:

```
>>> set auto_action boot
>>> boot
```

## Host / Workstation Software Questions

**Q:** My RTU UP/DOWN status points disagree with USR. The points have been checked against the MISER System Manual (naturally!) and are addressed correctly, input subtype STATUS, ON=1=DOWN, but they still do not agree with the RTU status. What's up?

**A:** This happens if both the A and B MISER nodes have just been down simultaneously, or if the point segments of RTU status points are not owned by the workstation in which the unit status points are addressed.

If the A and B nodes are both down at the same time, status points for RTUs remain in the DOWN (1) status when the RTUs first come up. The easiest thing to do is to CHV the status points to UP (0). The points will work correctly from then on, if they are set up correctly.

One common setup problem with status points occurs when an RTU is addressed in a Workstation instead of the A or B host, and the point database is segmented so that this workstation does not own all point segments. If the status point for this RTU does not have a segment number that is owned by the workstation, the status point will not work.

**Q:** My alarm display is different on two different nodes. Why is that?

**A:** Much of the time, it turns out that the same alarms are listed on the two nodes, with the same time stamps, but that they appear in a different order in the two alarm windows. The alarms are posted in a workstation's alarm window in the order in which they are received by the workstation, instead of being sorted by time stamp.

Sometimes, alarms do appear in one alarm window and not in another. Most often, the differing alarms are for RTU status points, which are subject to the problems described in the previous question.

In systems with remote nodes, if communication is bad, NETIO on one workstation can fall hopelessly behind in trying to send messages to mailboxes on other nodes. At such times, WATCH SHOW ALL will show NETIO in states like RWMBX, RWAST or MUTEX. At this point, all bets are off on how the alarm window on this node will compare to other nodes, and the workstation has to be rebooted.

**Q:** All of a sudden, my report printer is printing the wrong size font. Why?

**A:** Turn the printer off, wait a few seconds, then turn it back on again.

**Q:** My alarm / spool / color printer is not printing anything (it worked yesterday). Why?

**A:** The problem is 99% likely to be a hardware problem with the printer. Ensure that the Fault light is not on, and the Online light is on. If the lights all show OK, push the Test button. If the printer tests OK, inspect the serial connection to the host.

The APL (alarm print log) command is available to test alarm printer AP0. AP1, AP2... can be tested by defining a test point specifying these printers in its ALARM PRINTERS field, and forcing an alarm on this point.

To check the host end status of the spool or color printer(s), log into the host that is currently online, and enter the command in a DECterm:

```
SHOW QUEUE/ALL
```

Suppose there is a problem with report printer SP0. The queue \$SP0 will show STALLED, and pending print jobs with entry numbers will be listed in the queue.

Ensure that any printer faults are cleared, and that the printer is connected. Then enter:

```
STOP/QUEUE/RESET $SP0
START/QUEUE $SP0
SHOW QUEUE $SP0/ALL
```

The SHOW QUEUE command should show \$SP0 to be PRINTING the first job. If the queue goes back to the STALLED condition, there is still some problem with the printer.

**Q:** How do I set the time on my MISER system?

On any workstation:

```
TOOLS
MISER_TIME
```

**Q:** Ever since the last Daylight Savings Time change, the clock in Xview on my workstation is off by an hour. When I do SHOW TIME in a DECterm, though, it displays the right time, and I know my history is being time-stamped correctly. Why?

**A:** The time zone setup in TCP/IP was done incorrectly. Please refer to the MISER User Note: Time Differential Factor – TDF for the fix.

**Q:** UAL: Ever since we added a workstation / replaced the disk on a workstation, UAL does not work on the new workstation. Why?

**A:** You need to always use the SYSTEM account for UAL. Copying the user authorization file from disk to disk does something to all the other accounts, so that using your personal account to run UAL causes this symptom.

**Q:** **When I do ERR on the online host, I get hundreds of error messages! Why does it do this?**

**A:** Probably, at least 80% of them are NETIO retries to other remote MISER workstations. This happens when the WAN is not so good, for whatever reason. (This HAS been known to be HSQ's fault. I refer specifically to the time when our field superintendent put coax T's with terminators on all the Ethernet junction boxes, instead of connecting the cables directly to the wall. At other times, it has been others' fault, e.g. the project where the customers extended their network with a bunch of TV cable.)

Another common type of error is CSPROC reporting bad packets from RTU's—usually radio RTU's.

The HYPROC process has a habit of generating nuisance error messages, especially during a failover. You may see:

```
HYPROC - Could not find record to delete.
HYPROC - BH IOSTAT = <something>
```

many times. This is involved with RTUs going down and coming back up during a failover, and does not reflect a problem that will hurt anything.

If you are trying to use ERR to figure out the reason for a system crash, and you have many errors of the above type, there are several things you can do.

First, you can filter out errors. To exclude errors from NETIO, do the following:

```
ERR/EXC=NETIO
```

To exclude errors from NETIO and CSPROC, do

```
ERR/EXC=(NETIO, CSPROC)
```

You can also select errors from particular processes:

```
ERR/NAME=RUPROC ! Errors only from the report spreadsheet.
```

If MISER crashed but the computer itself kept running, WATCH SHOW ALL will show you the time at which MISER crashed. Then you can do an ERR starting shortly before this time:

```
ERR/SINCE=14:45
```

To view only a particular time window with ERR:

```
ERR /SINCE=10-MAR-2001:17:00 /BEFORE=11-MAR-2001:6:00
```

If MISER has crashed, the reason for the crash can be found in the error message just BEFORE the one that says W\_DOG MISER STOPPED.

**Q: My RDU report is printing 0.00 in every cell with a number in it. Why?**

**A:** This happens if one point used in the report has been deleted from the point database.

**Q: RDU: When I try to modify or execute a particular report, RDU says it cannot read the report definition. Other reports work, though. Why is this happening?**

**A:** The report file MNET\$REP:\*.RDU has become corrupted.

The first thing to try: On the current BACKUP host, there may well be a version of the file that predates the problem. Log in to the backup host, and do **DIR/DATE/SIZE MNET\$REP:<report name>.RDU** to find this file version. Then do **RENAME MNET\$REP:<report name>.RDU;<version>MNET\$REP:\*.RDU** to make this older version the current version. Next, do **NET\_DIST MNET\$REP:<report name>.RDU** to put this version on the online node. Now you should be able to modify the report in RDU, and you should also be able to run it.

Otherwise, you will have to get a working version of the report definition off of tape. Put a MSRBACK site backup tape in the tape drive, and do:

```
RENAME MNET$REP:<report name>.RDU;* MNET$REP:*.RDU_OLD;*/LOG
BACKUP MKA500:<save set name>.BCK/SELECT=<report name>.RDU PF:[*...]/LOG
NET_DIST MNET$REP:<report name>.RDU
```

and then test the report.

**Q: My online host is up in USR everywhere, but I cannot do anything on it, even from the VT100 console terminal. It is reacting to my commands so slowly that it is unusable. How can I fix this?**

**A:** Some process has gone ape and is hogging almost all of the CPU time. Obviously, halting the online host and letting the system fail over will fix the immediate problem. To help us actually solve the problem, though, you should enter the following command in your very slow login session:

```
SET PROCESS/PRIORITY=31
```

Once this command manages to complete, it will make your login run faster. Next do:

```
MONITOR PROCESS/TOPCPU
```

This will tell you which process is in an infinite loop. You can alleviate the symptom by logging into some different node and doing:

```
WATCH STOP <process>/NODE=<online node>
```

Then call HSQ and tell us to fix it.

**Q: My workstation or host node has been down for more than 14 days. Now I can boot it up and I know it will talk to the rest of the MISER system, but how do I resynchronize it with MISER?**

**A:** Boot up the workstation without starting MISER.

Turn on the workstation. Wait until the line.....

```
OpenVMS version x.xx
```

scrolls by on the screen, then push the Halt button to get the console prompt >>>. Then do the following:

```
>>> boot -flags 0,1
...
SYSBOOT> set user3 1
SYSBOOT> continue
...
```

Call HSQ, and one of our customer service agents will dial in and copy the needed files to it. The needed files are any files that are maintained in real time on the workstation.

**Q: When I print out a PRP or ANT report with time intervals of 1D, I get one line of data per page. Why?**

**A:** Instead of 1D, enter a time interval of 24H.

**Q: Can I print my slide index?**

**A:** No. Sorry, we really should fix this. I have been asked this one several times.

**Q: How can I tell how many points I have on my system?**

**A:** Reboot any workstation. It will tell you how many points you have as it starts MISER.

**Q:** **Can we convert CPD and EVD controls into VCL algorithms?**

**A:** Sure! But there is no automatic way to do this.

**Q:** **Can we “silence” alarms only on one workstation?**

**A:** Yes, by using Alarm Priorities in combination with the Xview Alarm Bell Priority feature. Please see AON in the MISER Operator’s Manual, and Alarm Bell Priority in the Xview section of the Operator’s Manual.

**Q:** **Can we display the status of PC’s, terminal servers, switches and other network equipment?**

**A:** In MISER 6.06, we have a program called HostIP that pings each IP host known to MISER, and marks equipment down if it does not reply.

**Q:** **Can a non-privileged account run LINMON?**

**A:** Yes, we just have to put an extra statement in the system startup to enable this.

**Q:** **Can a non-privileged account run MSRBACK?**

**A:** No, you cannot do this.



## RTU Hardware Questions

**Q: I just rebooted my whole MISER system, and my radio RTUs are taking forever to come back up. How can I fix this?**

**A:** If you have many radios on that line (e.g. the Phoenix project), the system will time out individual RTUs as it tries to initialize others. Eventually, they will all come up, but it might take hours. One way to help things along: block about 75% of the RTUs on that line. Once the non-blocked RTUs come up, unblock a few more, etc.

**Q: All my RTUs on one radio line are down all of a sudden. A few of them try to come up and get into Awaiting EOI once in a while, but they never make it. Why?**

**A:** Very likely, one of the RTUs has its carrier stuck ON. You will probably have to go turn all the RTUs off on that line, and turn them back on one by one until you find the culprit.

**Q: I turned the RTU off and back on, and it will not boot. How can I fix this?**

**A:** This can be caused by a bad interface board (DI, DO, AI or AO board) pulling down the 24V or 5V. Turn the RTU off and disconnect the power and data bus from all the interface boards. (Never connect or disconnect power or data from one of these boards with the RTU on.) See if the RTU will boot now. If it does, reconnect the boards one by one until you find the board that prevents the RTU from booting.

**Q: An RTU AO briefly “dips” by around 5mA on a time interval between 45 seconds and 5 minutes, or every fourth or eighth DI briefly comes ON intermittently. Why?**

**A:** There is a problem with the ribbon cable connecting the I/O boards to the CPU.

**Q: All the odd-numbered (even-numbered) AI’s are pegged high on my AI board, but replacing the board did not solve the problem. Why?**

**A:** On one of the odd-numbered (even-numbered) AI’s, the field wiring is placing more than 5V on the AI channel because of a short or a bad transducer. Disconnect all the AI’s from the board, and reconnect them one by one until the symptom reappears.

## RTU Software Questions

**Q:** I just got a new RTU from HSQ, and it comes UP in USR when I turn it on. But, when it is coming up, I get messages on the alarm printer saying “Point failed to initialize.” None of the points in the RTU report COS. RFV and STA on points in the RTU show a Field Status of Undefined. Why is this?

**A:** The RTU does not have a board map. \*\*\*

**Q:** A point, or a few points, stopped reporting from an existing RTU. RFV and STA show a field status of UNDEFINED for these points. Why?

**A:** The RTU has “forgotten” the point definition. Run DPT on the point, or load the point into XDPT, and then save the point definition (it is not necessary to make any changes to the point). This downloads the point to the RTU, and the point will resume reporting.

Another reason points stop reporting is if two or more points have duplicate addresses. To check for these, enter in a DECterm:

TOOLS DUP_ADD
------------------

and a duplicate address report will print out.

**Q:** I rewired some DI relays in my system from Normally Open to Normally Closed or vice versa, and called HSQ to reverse bits in the host to keep the indications right. Now my control blocks do not work. Why?

**A:** Traditional control blocks do not pay attention to reversed DI bits in the host point setup, and neither do VCL control blocks running in the RTU.

**Q:** From RTUDIAG, I can read an AI, start a DO etc., but I can’t upload a board map, or control blocks, or configuration—I get a communication timeout. Why?

**A:** Try lengthening the front porch in your RTUDIAG configuration settings.

**Q:** Are control block files developed for the /86 RTU compatible with the x86 RTU?

**A:** Yes, but naturally all the point numbers have to be the same. The default point numbers for auxiliary points in the /86 are different from those for the x86, so watch out.