

IOS and Mainframe Dump [G]

If your CRAY J90se system experiences an IOS (MPN or SPN) assertion panic, processor panic, or a UNICOS system panic, you should perform an IOS dump and mainframe dump so that the data in your system's memory is saved into a file. These dumps are very important and useful for determining probable causes for software or hardware problems. This section explains the procedures for capturing memory dumps on CRAY J90se systems from the system workstation (SWS).

G.1 Send dump results to Cray Research

Send your dump results to Software Product Support at Cray Research corporate headquarters in Eagan, Minnesota, USA for analysis. For tracking purposes, include the CRUISE ticket number and/or the SPR number for the incident. The `unicos` and crash files that are created at the same time as the dump file become the core file system and also should be forwarded for analysis.

G.2 Generating a dump

When either an assertion panic or a processor fault panic occurs, the firmware on the IOS (MPN or SPN) automatically captures a dump of that I/O node and saves it to the system console disk in the `/opt/CYRIDump` file. IOS dumps are usually 9 Mbytes. In cases where an apparent hang or unusual system behavior has occurred, you must manually perform an MPN dump.

To create a dump image of the UNICOS operating system running on a CRAY J90se mainframe over the GigaRing channel, execute the `dumpsys(8)` command. To indicate a reason for the dump, use the `-r reason` argument.

The `dumpsys` command dumps one or more I/O node or mainframe system components. If you do not specify any options, `dumpsys` dumps the maintenance host I/O nodes, dumps the other I/O nodes, boots the maintenance host I/O nodes, initializes the rings, boots the other I/O nodes, and dumps the mainframe for all system components specified in the `topology(5)` file. The `topology` file identifies rings, I/O nodes, and mainframes and the manner in which they are connected.

`dumpsys` uses the defaults provided by the lower-level commands, such as `dumpj90(8)`, unless they are overridden by specifications in the `options(5)` file.

If you specify one or more system components on the `dumpsys` command line, only those components are dumped. The order in which components are specified on the command line is insignificant.



Caution: Do not execute the `dumpsys` command on a running system. It will cause the system to crash, possibly causing a loss of data or corrupted file systems. Before executing this command, shut down UNICOS according to the methods described in UNICOS administration documentation.

For more information on dumps, see the `dumpsys(8)` man page and the *SWS-ION Administration and Operations Guide*, Cray Research publication SG-2204.