

NAME

core – format of core image file

DESCRIPTION

UNIX writes out a core image of a terminated process when any of various errors occur. See *signal (II)* for the list of reasons; the most common are memory violations, illegal instructions, bus errors, and user-generated quit signals. The core image is called “core” and is written in the process’s working directory (provided it can be; normal access controls apply).

The first 1024 bytes of the core image are a copy of the system’s per-user data for the process, including the registers as they were at the time of the fault. The remainder represents the actual contents of the user’s core area when the core image was written. If the text segment is write-protected and shared, it is not dumped; otherwise the entire address space is dumped.

The format of the information in the first 1024 bytes is described by the *user* structure of the system. The important stuff not detailed therein is the locations of the registers. Here are their offsets. The parenthesized numbers for the floating registers are used if the floating-point hardware is in single precision mode, as indicated in the status register.

fpsr	0004
fr0	0006 (0006)
fr1	0036 (0022)
fr2	0046 (0026)
fr3	0056 (0032)
fr4	0016 (0012)
fr5	0026 (0016)
r0	1772
r1	1766
r2	1750
r3	1752
r4	1754
r5	1756
sp	1764
pc	1774
ps	1776

In general the debuggers *db (I)* and *cdb (I)* are sufficient to deal with core images.

SEE ALSO

cdb (I), *db (I)*, *signal (II)*