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 section of the core image is 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 size of this section depends on the parameter*usize* . Currently for PWB/UNIX systems it is 768 bytes. The remainder represents the actual contents of the user’s core area when the core image was written. If the text segment is read-only and shared, or separated from data space, it is not dumped.

The format of the information in the first section 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)

The following registers are located relative to end of the first section.

r0	−6
r1	−12
r2	−30
r3	−26
r4	−24
r5	−22
sp	−14
pc	−4
ps	−2

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

SEE ALSO

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