

new/usr/src/man/man3c/bytorder.3c

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*****
2156 Sat Jan 12 22:56:05 2019
new/usr/src/man/man3c/bytorder.3c
10229 Some man pages have incorrect cross-references
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22 .Dd August 2, 2018
23 .Dt BYTORDER 3C
24 .Os
25 .Sh NAME
26 .Nm bytorder ,
27 .Nm htonl ,
28 .Nm htons ,
29 .Nm ntohs ,
30 .Nm ntohl ,
31 .Nm ntohll ,
32 .Nm ntohs
33 .Nd convert values between host and network byte order
34 .Sh LIBRARY
35 .Lb libc
36 .Sh SYNOPSIS
37 .In sys/types.h
38 .In netinet/in.h
39 .In inttypes.h
40 .Ft uint32_t
41 .Fo htonl
42 .Fa "uint32_t hostlong"
43 .Fc
44 .Ft uint64_t
45 .Fo htonl
46 .Fa "uint64_t hostlonglong"
47 .Fc
48 .Ft uint16_t
49 .Fo htons
50 .Fa "uint16_t hostshort"
51 .Fc
52 .Ft uint32_t
53 .Fo ntohl
54 .Fa "uint32_t netlong"
55 .Fc
56 .Ft uint64_t
57 .Fo ntohll
58 .Fa "uint64_t netlonglong"
59 .Fc
60 .Ft uint16_t
61 .Fo ntohs
```

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```
62 .Fa "uint16_t netshort"
63 .Fc
64 .Sh DESCRIPTION
65 These functions convert 16-bit, 32-bit, and 64-bit quantities between network
66 byte order and host byte order.
67 On some architectures these routines are defined as
68 .Dv NULL
69 macros in the include file
70 .In netinet/in.h .
71 On other architectures, the routines are functional when the host byte order is
72 different from network byte order.
73 .Pp
74 These functions are most often used in conjunction with Internet addresses and
75 ports as returned by
76 .Xr gethostent 3NSL
77 and
78 .Xr getservent 3SOCKET .
78 .Xr getservent 3NSL .
79 .Sh MT-LEVEL
80 .Sy Safe
81 .Sh SEE ALSO
82 .Xr inet.h 3HEAD ,
83 .Xr gethostent 3NSL ,
84 .Xr getservent 3SOCKET ,
84 .Xr getservent 3NSL ,
85 .Xr attributes 5 ,
86 .Xr bytorder 5
```

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*****
1923 Sat Jan 12 22:56:05 2019
new/usr/src/man/man3c/memset_s.3c
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14 .Dd August 12, 2017
15 .Dt MEMSET_S 3C
16 .Os
17 .Sh NAME
18 .Nm memset_s
19 .Nd copy a value to all bytes of a memory buffer
20 .Sh LIBRARY
21 .Lb libc
22 .Sh SYNOPSIS
23 .Fd #define __STDC_WANT_LIB_EXT1__ 1
24 .In string.h
25 .Ft errno_t
26 .Fo memset_s
27 .Fa "void *s"
28 .Fa "rsize_t smax"
29 .Fa "int c"
30 .Fa "rsize_t n"
31 .Fc
32 .Sh DESCRIPTION
33 The
34 .Fn memset_s
35 function copies the value of
36 .Fa c
37 .Po converted to an
38 .Vt unsigned char
39 .Pc
40 into each of the first
41 .Fa n
42 bytes of the memory buffer pointed to by
43 .Fa s .
44 .Pp
45 Unlike the
46 .Xr memset 3C ,
47 .Fn memset_s
48 is guaranteed to never be optimized away by the compiler.
49 .Pp
50 The
51 .Fn memset_s
52 function detects the following runtime-constraint violations:
53 .Bl -enum
54 .It
55 .Fa s
56 is a
57 .Dv NULL
58 pointer.
59 .It
60 .Fa smax
61 or
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62 .Fa n
63 is greater than
64 .Dv RSIZE_MAX .
65 .It
66 .Fa n
67 is greater than
68 .Fa smax
69 .Pq buffer overflow .
70 .El
71 .Pp
72 If runtime-constraint violation is detected, and if
73 .Fa s
74 and
75 .Fa smax
76 are valid, the
77 .Fn memset_s
78 function copies the value of
79 .Fa c
80 .Po converted to an
81 .Vt unsigned char
82 .Pc
83 into each of the first
84 .Fa smax
85 bytes of the memory buffer pointed to by
86 .Fa s
87 before calling the runtime-constraint handler.
88 .Sh RETURN VALUES
89 The
90 .Fn memset_s
91 function returns 0 if there was no runtime-constraint violation.
92 Otherwise, a non-zero value is returned.
93 .Sh INTERFACE STABILITY
94 .Sy Standard
95 .Sh MT-LEVEL
96 .Sy Safe
97 .Sh SEE ALSO
98 .Xr memset 3C ,
99 .Xr set_constraint_handler_s 3C
100 .Sh STANDARDS
101 The
102 .Fn memset_s
103 function conforms to
104 .St -isoC-2011 .
```

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*****
2490 Sat Jan 12 22:56:05 2019
new/usr/src/man/man3head/endian.h.3head
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14 .Dd August 2, 2018
15 .Dt ENDIAN.H 3HEAD
16 .Os
17 .Sh NAME
18 .Nm endian.h
19 .Nd definitions for endian routines
20 .Sh SYNOPSIS
21 .In endian.h
22 .Sh DESCRIPTION
23 The
24 .In endian.h
25 header defines functions and macros focused on converting data between
26 the host machines native byte order and big or little-endian values.
27 While the manual page details the macros defined by
28 .In endian.h ,
29 the functions are documented separately in
30 .Xr endian 3C .
31 More information on endianness and a general background on the topic can
32 be found in
33 .Xr byteorder 5 .
34 .Pp
35 The
36 .In endian.h
37 header defines the following macros:
38 .Bl -tag -width Ds
39 .It Sy LITTLE_ENDIAN
40 A constant used to indicate a little-endian integer.
41 It is always defined, regardless of the actual endianness of the underlying
42 platform.
43 This macro should be used to compare against the
44 .Sy BYTE_ORDER
45 macro.
46 .It Sy BIG_ENDIAN
47 A constant used to indicate a big-endian integer.
48 It is always defined, regardless of the actual endianness of the underlying
49 platform.
50 This macro should be used to compare against the
51 .Sy BYTE_ORDER
52 macro.
53 .It Sy PDP_ENDIAN
54 A constant used to indicate the endianness used for four byte values on
55 the PDP-11.
56 It is always defined, regardless of the actual endianness of the underlying
57 platform.
58 This macro should be used to compare against the
59 .Sy BYTE_ORDER
60 macro.
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61 .It Sy BYTE_ORDER
62 The value of the
63 .Sy BYTE_ORDER
64 macro will be one of
65 .Sy LITTLE_ENDIAN
66 or
67 .Sy BIG_ENDIAN .
68 At this time, no supported architectures use the byte order indicated by
69 the
70 .Sy PDP_ENDIAN
71 macro.
72 .Pp
73 To determine the byte order of a system, one may compare the
74 .Sy BYTE_ORDER
75 to one of the aforementioned macros.
76 .El
77 .Pp
78 In addition to the routines provided by this header, standardized
79 functions may be found in
80 .Xr byteorder 3C .
81 The header
82 .Xr types.h 3HEAD
83 also defines additional pre-processor symbols to determine the current
84 endianness of the system.
85 .Sh INTERFACE STABILITY
86 .Sy Committed
87 .Sh SEE ALSO
88 .Xr byteorder 3C ,
89 .Xr endian 3C ,
90 .Xr types.h 3HEAD ,
91 .Xr attributes 5 ,
92 .Xr byteorder 5
```

new/usr/src/man/man3lib/libproc.3lib

```
*****
34610 Sat Jan 12 22:56:05 2019
new/usr/src/man/man3lib/libproc.3lib
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14 .Dd September 15, 2018
15 .Dt LIBPROC 3LIB
16 .Os
17 .Sh NAME
18 .Nm libproc
19 .Nd process control library
20 .Sh SYNOPSIS
21 .Lb libproc
22 .In libproc.h
23 .Sh DESCRIPTION
24 The
25 .Nm
26 library provides consumers a general series of interfaces to inspect
27 and control both live processes and core files.
28 It is intended for introspection tools such as debuggers by providing a
29 high-level interface to the /proc file system
30 .Pf ( Xr proc 4 ) .
31 .Pp
32 The
33 .Nm
34 library provides interfaces that focus on:
35 .Bl -bullet -offset indent
36 .It
37 Creating and attaching to live process, core files, and arbitrary ELF
38 objects.
39 .It
40 Interrogating the state of a process or core file.
41 .It
42 Manipulating the current state of a process or thread.
43 .It
44 Interrogating the state of threads of a process or core file.
45 .It
46 Running system calls in the context of another process.
47 .It
48 Various utilities for iterating process and core file file descriptors,
49 mappings, symbols, and more.
50 .It
51 Various utilities to support debugging tools.
52 .El
53 .Ss Live Processes
54 The
55 .Nm
56 library can be used to manipulate running processes and to create new
57 ones.
58 To manipulate an existing process first
59 .Em grab
60 it with the
61 .Fn Pgrab
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```
62 function.
63 A process is generally stopped as a side effect of grabbing it.
64 Callers must exercise caution, as if they do not use the library correctly, or
65 they terminate unexpectedly, a process may remain stopped.
66 .Pp
67 Unprivileged users may only grab their own processes.
68 Users with the privilege
69 .Brq Sy PRIV_PROC_OWNER
70 may manipulate processes that they do not own; however, additional
71 restrictions as described in
72 .Xr privileges 5
73 apply.
74 .Pp
75 In addition, the
76 .Fn Pcreate
77 and
78 .Fn Pxcreate
79 functions may be used to create processes which are always controlled by
80 the library.
81 .Ss Core Files
82 The
83 .Nm
84 library has the ability to open and interpret core files produced by
85 processes on the system.
86 Process core dump generation is controlled by the
87 .Xr coreadm 1M
88 command.
89 In addition, the library has the ability to understand and interpret core dumps
90 generated by Linux kernel and can provide a subset of its functionality on such
91 core files, provided the original binary is also present.
92 .Pp
93 Not all functions in the
94 .Nm
95 library are valid for core files.
96 In general, none of the commands which manipulate the current state of a process
97 or thread or that try to force system calls on a victim process will work.
98 Furthermore several of the information and iteration interfaces are limited
99 based on the data that is available in the core file.
100 For example, if the core file is of a process that omits the frame pointer, the
101 ability to iterate the stack will be limited.
102 .Pp
103 Use the
104 .Fn Pggrab_core
105 or
106 .Fn Pfgrab_core
107 function to open a core file.
108 Use the
109 .Fn Pggrab_file
110 function to open an ELF object file.
111 This is useful for obtaining information stored in ELF headers and
112 sections.
113 .Ss Debug Information
114 Many of the operations in the library rely on debug information being
115 present in a process and its associated libraries.
116 The library leverages symbol table information, CTF data
117 .Pq Xr ctf 4
117 .Pq Xr CTF 4
118 sections, and frame unwinding information based on the use of an ABI
119 defined frame pointer, e\&.g\&.
120 .Sy %ebp
121 and
122 .Sy %rbp
123 on x86 systems.
124 .Pp
125 Some software providers strip programs of this information or build
126 their executables such that the information will not be present in a
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127 core dump.
128 To deal with this fact, the library is able to consume information that is not
129 present in the core file or the running process.
130 It can both consume it from the underlying executable and it also supports
131 finding it from related ELF objects that are linked to it via the
132 .Sy .gnu_debuglink
133 and the
134 .Sy .note.gnu.build-id
135 ELF sections.
136 .Ss Iteration Interfaces
137 The
138 .Nm
139 library provides the ability to iterate over the following aspects of a
140 process or core file:
141 .Bl -bullet -offset indent
142 .It
143 Active threads
144 .It
145 Active and zombie threads
146 .It
147 All non-system processes
148 .It
149 All process mappings
150 .It
151 All objects in a process
152 .It
153 The environment
154 .It
155 The symbol table
156 .It
157 Stack frames
158 .It
159 File Descriptors
160 .El
161 .Ss System Call Injection
162 The
163 .Nm
164 library allows the caller to force system calls to be executed in the
165 context of the running process.
166 This can be used both as a tool for introspection, allowing one to get
167 information outside its current context as well as performing modifications to a
168 process.
169 .Pp
170 These functions run in the context of the calling process.
171 This is often an easier way of getting non-exported information about a
172 process from the system.
173 For example, the
174 .Xr pfiles 1
175 command uses this interface to get more detailed information about a
176 process's open file descriptors, which it would not have access to
177 otherwise.
178 .Sh INTERFACES
179 The shared object
180 .Sy libproc.so.1
181 provides the public interfaces defined below.
182 See
183 .Xr Intro 3
184 for additional information on shared object interfaces.
185 Functions are organized into categories that describe their purpose.
186 Individual functions are documented in their own manual pages.
187 .Ss Creation, Grabbing, and Releasing
188 The following routines are related to creating library handles,
189 grabbing cores, processes, and threads, and releasing those resources.
190 .Bl -column -offset indent ".Sy Pmapping_iter_resolved" ".Sy Psymbol_iter_by_add
191 .It Sy Lfree Ta Sy Lgrab
192 .It Sy Lgrab_error Ta Sy Pcreate

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193 .It Sy Pcreate_agent Ta Sy Pcreate_callback
194 .It Sy Pcreate_error Ta Sy Pdestroy_agent
195 .It Sy Pggrab_core Ta Sy Pfree
196 .It Sy Pgrab Ta Sy Pggrab_core
197 .It Sy Pggrab_error Ta Sy Pggrab_file
198 .It Sy Pggrab_ops Ta Sy Prelease
199 .It Sy Preopen Ta Sy Pxcreate
200 .El
201 .Ss Process interrogation and manipulation
202 The following routines obtain information about a process and allow
203 manipulation of the process itself.
204 .Bl -column -offset indent ".Sy Pmapping_iter_resolved" ".Sy Psymbol_iter_by_add
205 .It Sy Paddr_to_ctf Ta Sy Paddr_to_loadobj
206 .It Sy Paddr_to_map Ta Sy Paddr_to_text_map
207 .It Sy Pasfd Ta Sy Pclearfault
208 .It Sy Pclearsig Ta Sy Pcontent
209 .It Sy Pcred Ta Sy Pctlfd
210 .It Sy Pdelbkpt Ta Sy Pdelwapt
211 .It Sy Pdstop Ta Sy Pexecname
212 .It Sy Pfault Ta Sy Pfcore
213 .It Sy Pgcore Ta Sy Pgetareg
214 .It Sy Pgetauxval Ta Sy Pgetauxvec
215 .It Sy Pgetenv Ta Sy Pisprocdir
216 .It Sy Pissyscall_prev Ta Sy Plmid
217 .It Sy Plmid_to_loadobj Ta Sy Plmid_to_map
218 .It Sy Plookup_by_addr Ta Sy Plookup_by_name
219 .It Sy Plwp_alt_stack Ta Sy Plwp_getfpregs
220 .It Sy Plwp_getname Ta Sy Plwp_getpsinfo
221 .It Sy Plwp_getregs Ta Sy Plwp_getspymaster
222 .It Sy Plwp_main_stack Ta Sy Plwp_setfpregs
223 .It Sy Plwp_setregs Ta Sy Plwp_stack
224 .It Sy Pname_to_ctf Ta Sy Pname_to_loadobj
225 .It Sy Pname_to_map Ta Sy Pobjname
226 .It Sy Pobjname_resolved Ta Sy Pplatform
227 .It Sy Ppldest Ta Sy Ppriv
228 .It Sy Ppsinfo Ta Sy Pputareg
229 .It Sy Prd_agent Ta Sy Pread
230 .It Sy Pread_string Ta Sy Preset_maps
231 .It Sy Psetbkpt Ta Sy Psecflags
232 .It Sy Psetcred Ta Sy Psetfault
233 .It Sy Psetflags Ta Sy Psetpriv
234 .It Sy Psetrun Ta Sy Psetsignal
235 .It Sy Psetsysentry Ta Sy Psetsysexit
236 .It Sy Psetwapt Ta Sy Psetzoneid
237 .It Sy Psignal Ta Sy Pstate
238 .It Sy Pstatus Ta Sy Pstop
239 .It Sy Pstopstatus Ta Sy Psync
240 .It Sy Psysentry Ta Sy Psysexit
241 .It Sy Puname Ta Sy Punsetflags
242 .It Sy Pupdate_maps Ta Sy Pupdate_syms
243 .It Sy Pwait Ta Sy Pwrite
244 .It Sy Pxecbkpt Ta Sy Pxecwapt
245 .It Sy Pxlookup_by_addr Ta Sy Pxlookup_by_addr_resolved
246 .It Sy Pxlookup_by_name Ta Sy Pzonenumber
247 .It Sy Pzonopath Ta Sy Pzoneroot Ta
248 .El
249 .Ss Thread interrogation and manipulation
250 The following routines obtain information about a thread and allow
251 manipulation of the thread itself.
252 .Bl -column -offset indent ".Sy Pmapping_iter_resolved" ".Sy Psymbol_iter_by_add
253 .It Sy Lalt_stack Ta Sy Lclearfault
254 .It Sy Lclearsig Ta Sy Lctlfd
255 .It Sy Ldstop Ta Sy Lgetareg
256 .It Sy Lmain_stack Ta Sy Lprochandle
257 .It Sy Lpsinfo Ta Sy Lputareg
258 .It Sy Lsetrun Ta Sy Lstack

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259 .It Sy Lstate Ta Sy Lstatus
260 .It Sy Lstop Ta Sy Lsync
261 .It Sy Lwait Ta Sy Lxecbkpt
262 .It Sy Lxecwapt Ta ""
263 .El
264 .Ss System Call Injection
265 The following routines are used to inject specific system calls and have
266 them run in the context of a process.
267 .Bl -column -offset indent ".Sy Pmapping_iter_resolved" ".Sy Psymbol_iter_by_add
268 .It Sy pr_access Ta Sy pr_close
269 .It Sy pr_creat Ta Sy pr_door_info
270 .It Sy pr_exit Ta Sy pr_fcntl
271 .It Sy pr_fstat Ta Sy pr_fstat64
272 .It Sy pr_fstatvfs Ta Sy pr_gettimer
273 .It Sy pr_getpeername Ta Sy pr_getpeerucred
274 .It Sy pr_getprojid Ta Sy pr_getrctl
275 .It Sy pr_getrlimit Ta Sy pr_getrlimit64
276 .It Sy pr_getsockname Ta Sy pr_getsockopt
277 .It Sy pr_gettaskid Ta Sy pr_getzoneid
278 .It Sy pr_ioctl Ta Sy pr_link
279 .It Sy pr_llseek Ta Sy pr_lseek
280 .It Sy pr_lstat Ta Sy pr_lstat64
281 .It Sy pr_memcntl Ta Sy pr_meninfo
282 .It Sy pr_mmap Ta Sy pr_munmap
283 .It Sy pr_open Ta Sy pr_processor_bind
284 .It Sy pr_rename Ta Sy pr_setitimer
285 .It Sy pr_setrctl Ta Sy pr_setrlimit
286 .It Sy pr_setrlimit64 Ta Sy pr_settaskid
287 .It Sy pr_sigaction Ta Sy pr_stat
288 .It Sy pr_stat64 Ta Sy pr_statvfs
289 .It Sy pr_unlink Ta Sy pr_waitid
290 .El
291 .Ss Iteration routines
292 These routines are used to iterate over the contents of a process.
293 .Bl -column -offset indent ".Sy Pmapping_iter_resolved" ".Sy Psymbol_iter_by_add
294 .It Sy Penv_iter Ta Sy Plwp_iter
295 .It Sy Plwp_iter_all Ta Sy Pmapping_iter
296 .It Sy Pmapping_iter_resolved Ta Sy Pobject_iter
297 .It Sy Pobject_iter_resolved Ta Sy Pstack_iter
298 .It Sy Psymbol_iter Ta Sy Psymbol_iter_by_addr
299 .It Sy Psymbol_iter_by_lmid Ta Sy Psymbol_iter_by_name
300 .It Sy Pxsymbol_iter Ta Sy Pfinfo_iter
301 .El
302 .Ss Utility routines
303 The following routines are utilities that are useful to consumers of the
304 library.
305 .Bl -column -offset indent ".Sy Pmapping_iter_resolved" ".Sy Psymbol_iter_by_add
306 .It Sy Perror_printf Ta Sy proc_arg_grab
307 .It Sy proc_arg_psinfo Ta Sy proc_arg_xgrab
308 .It Sy proc_arg_xpsinfo Ta Sy proc_content2str
309 .It Sy proc_finstdio Ta Sy proc_fltname
310 .It Sy proc_fltset2str Ta Sy proc_flushstdio
311 .It Sy proc_get_auxv Ta Sy proc_get_cred
312 .It Sy proc_get_priv Ta Sy proc_get_psinfo
313 .It Sy proc_get_status Ta Sy proc_initstdio
314 .It Sy proc_lwp_in_set Ta Sy proc_lwp_range_valid
315 .It Sy proc_sighname Ta Sy proc_sigset2str
316 .It Sy proc_str2content Ta Sy proc_str2flt
317 .It Sy proc_str2fltset Ta Sy proc_str2sig
318 .It Sy proc_str2sigset Ta Sy proc_str2sys
319 .It Sy proc_str2sysset Ta Sy proc_sysname
320 .It Sy proc_sysset2str Ta Sy proc_untime_psinfo
321 .It Sy proc_walk Ta ""
322 .El
323 .Ss x86 Specific Routines
324 The following routines are specific to the x86, 32-bit and 64-bit,

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325 versions of the
326 .Nm
327 library.
328 .Bl -column -offset indent ".Sy Pmapping_iter_resolved" ".Sy Psymbol_iter_by_add
329 .It Sy Pldt Ta Sy proc_get_ldt
330 .El
331 .Ss SPARC specific Routines
332 The following functions are specific to the SPARC, 32-bit and 64-bit,
333 versions of the
334 .Nm
335 library.
336 .Bl -column -offset indent ".Sy Pmapping_iter_resolved" ".Sy Psymbol_iter_by_add
337 .It Sy Plwp_getwindows Ta Sy Plwp_getxregs
338 .It Sy Plwp_setxregs Ta Sy ""
339 .El
340 .Pp
341 The following functions are specific to the 64-bit SPARC version of the
342 .Nm
343 library.
344 .Bl -column -offset indent ".Sy Pmapping_iter_resolved" ".Sy Psymbol_iter_by_add
345 .It Sy Plwp_getasrs Ta Sy Plwp_setasrs
346 .El
347 .Sh PROCESS STATES
348 Every process handle that exists in
349 .Nm
350 has a state.
351 In some cases, such as for core files, these states are static.
352 In other cases, such as handles that correspond to a running process or a
353 created process, these states are dynamic and change based on actions taken in
354 the library.
355 The state can be obtained with the
356 .Xr Pstate 3PROC
357 function.
358 .Pp
359 The various states are:
360 .Bl -tag -width Dv -offset indent
361 .It Dv PS_RUN
362 An actively running process.
363 This may be a process that was obtained by creating it with functions such as
364 .Xr Pcreate 3PROC
365 or by grabbing an existing process such as
366 .Xr Pgrab 3PROC .
367 .It Dv PS_STOP
368 An active process that is no longer executing.
369 A process may stop for many reasons such as an explicit stop request (through
370 .Xr pstop 1
371 for example) or if a tracing event is hit.
372 .Pp
373 The reason a process is stopped may be obtained through the thread's
374 .Vt lwppstatus_t
375 structure read directly from /proc or obtained through the
376 .Xr Lstatus 3PROC
377 function.
378 .It Dv PS_LOST
379 Control over the process has been lost.
380 This may happen when the process executes a new image requiring a different set
381 of privileges.
382 To resume control call
383 .Xr Preopen 3PROC .
384 For more information on losing control of a process, see
385 .Xr proc 4 .
386 .It Dv PS_UNDEAD
387 A zombie process.
388 It has terminated, but it has not been cleaned up yet by its parent.
389 For more on the conditions of becoming a zombie, see
390 .Xr exec 2 .

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391 .It Dv PS_DEAD
392 Processes in this state are always core files.
393 See the earlier section
394 .Sx Core Files
395 for more information on working with core files.
396 .It Dv PS_IDLE
397 A process that has never been run.
398 This is always the case for handles that refer to files as the files cannot be
399 executed.
400 Those process handles are obtained through calling
401 .Xr Pgrab_file 3PROC .
402 .El
403 .Pp
404 Many functions relating to tracing processes, for example
405 .Xr Psignal 3PROC ,
406 .Xr Psetsignal 3PROC ,
407 .Xr Psetfault 3PROC ,
408 .Xr Psysentry 3PROC ,
409 and others, mention that they only act upon
410 .Em Active Processes .
411 This specifically refers to processes whose state are in
412 .Dv PS_RUN
413 and
414 .Dv PS_STOP .
415 Process handles in the other states have no notion of settable tracing
416 flags, though core files
417 .Pq type Dv PS_DEAD
418 may have a read-only snapshot of their tracing settings available.
419 .Sh TYPES
420 The
421 .Nm
422 library uses many types that come from the /proc file system
423 .Pq Xr proc 4
424 and the ELF format
425 .Pq Xr elf 3ELF .
426 However, it also defines the following types:
427 .Pp
428 .Vt struct ps_prochandle
429 .Pp
430 The
431 .Vt struct ps_prochandle
432 is an opaque handle to the library and the core element of control for a
433 process.
434 Consumers obtain pointers to a handle through the use of the
435 .Fn Pcreate ,
436 .Fn Pgrab ,
437 and related functions.
438 When a caller is done with a handle, then it should call one of the
439 .Fn Pfree
440 and
441 .Fn Prelease
442 functions to relinquish the handle, release associated resources, and
443 potentially set the process to run again.
444 .Pp
445 .Vt struct ps_lwphandle
446 .Pp
447 The
448 .Vt struct ps_lwphandle
449 is analogous to the
450 .Vt struct ps_prochandle ,
451 but it represents the control of an individual thread, rather than a
452 process.
453 Consumers obtain pointers to a handle through the
454 .Fn Lgrab
455 function and relinquish it with the
456 .Fn Lfree

```

```

457 function.
458 .Pp
459 .Vt core_content_t
460 .Pp
461 The
462 .Vt core_content_t
463 is a value which describes the various content types of core files.
464 These are used in functions such as
465 .Xr Pcontent 3PROC
466 and
467 .Xr Pgcore 3PROC
468 to describe and control the types of content that get included.
469 Various content types may be included together through a bitwise-inclusive-OR.
470 The default system core contents are controlled with the
471 .Xr coreadm 1M
472 tool.
473 The following table lists the current set of core contents in the system, though
474 the set may increase over time.
475 The string after the macro is the human readable string that corresponds with
476 the constant and is used by
477 .Xr coreadm 1M ,
478 .Xr proc_content2str 3PROC ,
479 and
480 .Xr proc_str2content 3PROC .
481 .Bl -tag -offset indent -width indent
482 .It Dv CC_CONTENT_STACK ("stack")
483 The contents include the process stack.
484 Note, this only covers the main thread's stack.
485 The stack of other threads is covered by
486 .Dv CC_CONTENT_ANON .
487 .It Dv CC_CONTENT_HEAP ("heap")
488 The contents include the process heap.
489 .It Dv CC_CONTENT_SHFILE ("shfile")
490 The contents include shared mappings that are backed by files (e.g.
491 mapped through
492 .Xr mmap 2
493 with the
494 .Dv MAP_SHARED
495 flag).
496 .It Dv CC_CONTENT_SHANNON ("shannon")
497 The contents include shared mappings that are backed by anonymous memory
498 (e.g. mapped through
499 .Xr mmap 2
500 with the
501 .Dv MAP_SHARED
502 and
503 .Dv MAP_ANON
504 flags).
505 .It Dv CC_CONTENT_RODATA ("rodata")
506 The contents include private read-only file mappings, such as shared
507 library text.
508 .It Dv CC_CONTENT_ANON ("anon")
509 The contents include private anonymous mappings.
510 This includes the stacks of threads which are not the main thread.
511 .It Dv CC_CONTENT_SHM ("shm")
512 The contents include system V shared memory.
513 .It Dv CC_CONTENT_ISM ("ism")
514 The contents include ISM (intimate shared memory) mappings.
515 .It Dv CC_CONTENT_DISM ("dism")
516 The contents include DISM (dynamic shared memory) mappings.
517 .It Dv CC_CONTENT_CTF ("ctf")
518 The contents include
519 .Xr ctf 4
520 (Compact C Type Format) information.
521 Note, not all objects in the process may have CTF information available.
522 .It Dv CC_CONTENT_SYMTAB ("syntab")

```

523 The contents include the symbol table.  
524 Note, not all objects in the process may have a symbol table available.  
525 .It Dv CC\_CONTENT\_ALL ("all")  
526 This value indicates that all of the above content values are present.  
527 Note that additional values may be added in the future, in which case  
528 the value of the symbol will be updated to include them.  
529 Comparisons with  
530 .Dv CC\_CONTENT\_ALL  
531 should validate all the expected bits are set by an expression such as  
532 .Li (c & CC\_CONTENT\_ALL) == CC\_CONTENT\_ALL .  
533 .It Dv CC\_CONTENT\_NONE ("none")  
534 This value indicates that there is no content present.  
535 .It Dv CC\_CONTENT\_DEFAULT ("default")  
536 The content includes the following set of default values:  
537 .Dv CC\_CONTENT\_STACK ,  
538 .Dv CC\_CONTENT\_HEAP ,  
539 .Dv CC\_CONTENT\_ISM ,  
540 .Dv CC\_CONTENT\_DISM ,  
541 .Dv CC\_CONTENT\_SHM ,  
542 .Dv CC\_CONTENT\_SHANON ,  
543 .Dv CC\_CONTENT\_TEXT ,  
544 .Dv CC\_CONTENT\_DATA ,  
545 .Dv CC\_CONTENT\_RODATA ,  
546 .Dv CC\_CONTENT\_ANON ,  
547 .Dv CC\_CONTENT\_CTF ,  
548 and  
549 .Dv CC\_CONTENT\_SYMTAB .  
550 Note that the default may change.  
551 Comparisons with CC\_CONTENT\_DEFAULT should validate that all of the expected  
552 bits are set with an expression such as  
553 .Li (c \&\ CC\_CONTENT\_DEFAULT)\ ==\ CC\_CONTENT\_DEFAULT .  
554 .It Dv CC\_CONTENT\_INVALID  
555 This indicates that the contents are invalid.  
556 .El  
557 .Pp  
558 .Vt prfdinfo\_t  
559 .Pp  
560 The  
561 .Vt prfdinfo\_t  
562 structure is used with the  
563 .Fn Pfdinfo\_iter  
564 function which describes information about a file descriptor.  
565 The structure is defined as follows:  
566 .Bd -literal  
567 typedef struct prfdinfo {  
568 int pr\_fd;  
569 mode\_t pr\_mode;  
570 uid\_t pr\_uid;  
571 gid\_t pr\_gid;  
572 major\_t pr\_major; /\* think stat.st\_dev \*/  
573 minor\_t pr\_minor;  
574 major\_t pr\_rmajor; /\* think stat.st\_rdev \*/  
575 minor\_t pr\_rminor;  
576 ino64\_t pr\_ino;  
577 off64\_t pr\_offset;  
578 off64\_t pr\_size;  
579 int pr\_fileflags; /\* fcntl(F\_GETXFL), etc \*/  
580 int pr\_fdflags; /\* fcntl(F\_GETFD), etc. \*/  
581 char pr\_path[MAXPATHLEN];  
582 } prfdinfo\_t;  
unchanged portion omitted

```
*****
1324 Sat Jan 12 22:56:05 2019
new/usr/src/man/man3proc/Pgrab_error.3proc
10229 Some man pages have incorrect cross-references
*****
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4 .\" 1.0 of the CDDL.
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6 .\" A full copy of the text of the CDDL should have accompanied this
7 .\" source. A copy of the CDDL is also available via the Internet at
8 .\" http://www.illumos.org/license/CDDL.
10 .\" 
11 .\" 
12 .\" Copyright 2015 Joyent, Inc.
13 .\" 
14 .Dd May 11, 2016
15 .Dt PGRAB_ERROR 3PROC
16 .Os
17 .Sh NAME
18 .Nm Pgrab_error
19 .Nd get Pgrab error message string
20 .Sh LIBRARY
21 .Lb libproc
22 .Sh SYNOPSIS
23 .In libproc.h
24 .Ft "const char *"
25 .Fo Pgrab_error
26 .Fa "int error"
27 .Fc
28 .Sh DESCRIPTION
29 The
30 .Fn Pgrab_error
31 function returns a pointer to a human-readable character string
32 describing the error that occurred.
33 This function only knows how to translate errors that are stored in
34 .Fa perr
35 during a failed call to
36 .Xr Pgrab 3PROC ,
37 .Xr Pfgrab_core 3PROC ,
37 .Xr Pfgrab_core 3PROC ,
38 .Xr Pgrab_core 3PROC ,
39 or
40 .Xr Pgrab_file 3PROC .
41 .Sh RETURN VALUES
42 The
43 .Fn Pgrab_error
44 function always returns a pointer to a character string that describes
45 the error that occurred, even if it is an unknown error.
46 .Sh INTERFACE STABILITY
47 .Sy Uncommitted
48 .Sh MT-LEVEL
49 .Sy MT-Safe
50 .Sh SEE ALSO
51 .Xr libproc 3LIB ,
52 .Xr Pgrab 3PROC ,
53 .Xr Pgrab_core 3PROC ,
54 .Xr Pgrab_file 3PROC
```

new/usr/src/man/man3proc/Psignal.3proc

\*\*\*\*\*  
2019 Sat Jan 12 22:56:05 2019

new/usr/src/man/man3proc/Psignal.3proc

10229 Some man pages have incorrect cross-references

\*\*\*\*\*

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8 .\" source. A copy of the CDDL is also available via the Internet at  
9 .\" <http://www.illumos.org/license/CDDL>.  
10 .\"  
11 .\"  
12 .\" Copyright 2015 Joyent, Inc.  
13 .\"  
14 .Dd May 11, 2016  
15 .Dt PSIGNAL 3PROC  
16 .Os  
17 .Sh NAME  
18 .Nm Psignal  
19 .Nd set signal tracing action  
20 .Sh LIBRARY  
21 .Lb libproc  
22 .Sh SYNOPSIS  
23 .In libproc.h  
24 .Ft int  
25 .Fo Psignal  
26 .Fa "struct ps\_prochandle \*P"  
27 .Fa "int which"  
28 .Fa "int stop"  
29 .Fc  
30 .Sh DESCRIPTION  
31 The  
32 .Fn Psignal  
33 function sets the signal tracing flag for the process handle  
34 .Fa P .  
35 If  
36 .Fa stop  
37 is  
38 .Sy non-zero  
39 it causes the process handle to stop threads that encounter the signal  
40 .Fa which .  
41 If  
42 .Fa stop  
43 is  
44 .Sy zero ,  
45 then it disables tracing for the signal  
46 .Fa which .  
47 .Pp  
48 The signal constants, representing valid values for  
49 .Fa which ,  
50 can be found in  
51 .Xr signal.h 3HEAD .  
51 .Xr signal.h 3HEAD .  
52 The signal  
53 .Dv SIGKILL  
54 may not be stopped.  
55 .Pp  
56 Note, only active processes may have their signal tracing flags updated.  
57 Process handles that refer to core files, zombie processes, and files do  
58 not have signal tracing flags.  
59 Calling this function on them is an error.  
60 .Sh RETURN VALUES

1

new/usr/src/man/man3proc/Psignal.3proc

61 Upon successful completion, the  
62 .Fn Psignal  
63 function returns the previous disposition of the signal  
64 .Fa which .  
65 It returns  
66 .Sy 1  
67 if it was set and  
68 .Sy 0  
69 if not.  
70 Otherwise,  
71 .Sy -1  
72 is returned and  
73 .Sy errno  
74 is set to indicate the error.  
75 .Sh ERRORS  
76 The  
77 .Fn Psignal  
78 function will fail if:  
79 .Bl -tag -width Er  
80 .It Er EINVAL  
81 .Fa which  
82 is  
83 .Dv SIGKILL  
84 and  
85 .Fa stop  
86 is non-zero .  
87 .Pp  
88 .Fa which  
89 is not a valid signal.  
90 .It Er ENOENT  
91 .Fa P  
92 does not correspond to an active process.  
93 .El  
94 .Sh INTERFACE STABILITY  
95 .Sy Uncommitted  
96 .Sh MT-LEVEL  
97 See  
98 .Sy LOCKING  
99 in  
100 .Xr libproc 3LIB .  
101 .Sh SEE ALSO  
102 .Xr signal.h 3HEAD ,  
103 .Xr libproc 3LIB ,  
104 .Xr Psetsignal 3PROC ,  
105 .Xr proc 4

2

new/usr/src/man/man5/pam\_timestamp.5

```
*****
2892 Sat Jan 12 22:56:05 2019
new/usr/src/man/man5/pam_timestamp.5
10229 Some man pages have incorrect cross-references
*****
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7 .\" A full copy of the text of the CDDL should have accompanied this
8 .\" source. A copy of the CDDL is also available via the Internet at
9 .\" http://www.illumos.org/license/CDDL.
10 .\"
11 .\" Copyright 2014 Nexenta Systems, Inc.
12 .\"
13 .Dd Nov 26, 2017
14 .Dt PAM_TIMESTAMP 5
15 .Os
16 .Sh NAME
17 .Nm pam_timestamp
18 .Nd PAM authentication module using cached successful authentication attempts
19 .Sh SYNOPSIS
20 .Nm pam_timestamp.so.1
21 .Op Ar debug
22 .Op Ar timeout=min
23 .Sh DESCRIPTION
24 The
25 .Nm
26 module caches successful tty-based authentication attempts by
27 creating user's directories and per tty timestamp files in the
28 common timestamp directory
29 .Pa /var/run/tty_timestamps .
30 Next authentication, if the timestamp file exist and not expired,
31 the user will not be asked for a password, otherwise timestamp
32 file will be deleted and user will be prompted to enter a password.
33 .Lp
34 The PAM items
35 .Dv PAM_USER ,
36 .Dv PAM_AUSER
37 and
38 .Dv PAM_TTY
39 are used by this module.
40 .Sy pam_timestamp
41 is normally configured as
42 .Sy sufficient
43 and must be used in conjunction with the modules that support
44 the UNIX authentication, which are
45 .Xr pam_authok_get 5 ,
46 .Xr pam_unix_cred 5
47 and
48 .Xr pam_unix_auth 5 .
49 Proper authentication operation requires
50 .Xr pam_unix_cred 5
51 be stacked above
52 .Nm .
53 .Sh OPTIONS
54 .Bl -tag -width Ds
55 .It Dv debug
56 Provides
57 .Xr syslog 3C
58 debugging information at the
59 .Sy LOG_AUTH | LOG_DEBUG
60 level.
```

1

new/usr/src/man/man5/pam\_timestamp.5

```
61 .It Dv timeout
62 Specifies the period (in minutes) for which the timestamp file is valid.
63 The default value is 5 minutes.
64 .El
65 .Sh FILES
66 .Bl -tag -width indent
67 .It Pa /var/run/tty_timestamps...
68 stores timestamp directories and files
69 .El
70 .Sh EXIT STATUS
71 .Bl -tag -width Ds
72 .It Dv PAM_SUCCESS
73 Timestamp file is not expired.
74 .It Dv PAM_IGNORE
75 The
76 .Nm
77 module was not able to retrieve required credentials
78 or timestamp file is expired or corrupt.
79 .El
80 .Sh EXAMPLES
81 .Ss Example 1 Allowing su authentication
82 .
83 The following example is a
84 .Xr pam.conf 4
85 fragment that illustrates default settings for allowing
86 .Xr su 1M
87 authentication:
88 .Bd -literal -offset indent
89 su auth required pam_unix_cred.so.1
90 su auth sufficient pam_timestamp.so.1
91 su auth requisite pam_authok_get.so.1
92 su auth required pam_unix_auth.so.1
93 .Ed
94 .Ss Example 2 Changing default timeout
95 .
96 The default timeout set to 10 minutes:
97 .Bd -literal -offset indent
98 su auth required pam_unix_cred.so.1
99 su auth sufficient pam_timestamp.so.1
100 su auth requisite pam_authok_get.so.1
101 su auth required pam_unix_auth.so.1
102 .Ed
103 .Sh INTERFACE STABILITY
104 .Sy Uncommitted .
105 .Sh MT LEVEL
106 .Sy MT-Safe .
107 .Sh SEE ALSO
108 .Xr su 1M ,
109 .Xr syslog 3C ,
110 .Xr pam 3PAM ,
111 .Xr pam_sm_authenticate 3PAM ,
112 .Xr pam_sm_setcred 3PAM ,
113 .Xr pam.conf 4
```

2

```
*****
5817 Sat Jan 12 22:56:06 2019
new/usr/src/man/man7d/usba.7d
10229 Some man pages have incorrect cross-references
*****
1 .\" Copyright (c) 2009, Sun Microsystems, Inc. All Rights Reserved
2 .\" Copyright 2016 Joyent, Inc.
3 .\" The contents of this file are subject to the terms of the Common Development
4 .\" See the License for the specific language governing permissions and limitat
5 .\" the fields enclosed by brackets "[]" replaced with your own identifying info
6 .Dd May 13, 2017
7 .Dt USBA 7D
8 .Os
9 .Sh NAME
10 .Nm usba ,
11 .Nm usb
12 .Nd illumos USB Architecture (USBA)
13 .Sh DESCRIPTION
14 USBA provides a low-cost means for attaching peripheral devices, including
15 mass-storage devices, keyboards, mice, and printers, to a system.
16 For complete information on the USB architecture, visit the USB website at
17 http://www.usb.org.
18 .Pp
19 USBA supports 126 hot-pluggable USB devices per USB bus.
20 The maximum data transfer rate is 5 Gbits (SuperSpeed USB 3.0), 480 Mbits (high
21 speed USB 2.0), 12 Mbits (full speed USB 1.x), or 1.5 Mbits (low speed USB 1.x).
22 .Pp
23 USBA adheres to the
24 .Em Universal Serial Bus 3.0
25 specification and provides a transport layer abstraction to USB client
26 drivers.
27 .Pp
28 For information on how to write USB client drivers, see
29 .Em Writing Device Drivers .
30 For the latest information on writing USB drivers, visit
31 .Em http://illumos.org/books/wdd .
32 For a complete list of USBA interfaces, see
33 .Xr Intro 9F
34 or
35 .Xr Intro 9S .
36 .Pp
37 Devices without a driver may be able to leverage libusb.
38 .Sh FILES
39 Listed below are drivers and modules which either utilize or are utilized by
40 USBA.
41 Drivers in
42 .Pa /kernel/drv
43 are 32 bit drivers (x86 only).
44 Drivers in
45 .Pa /kernel/drv/sparcv9
46 or
47 .Pa kernel/drv/amd64
48 are 64 bit drivers.
49 .Bl -column -offset indent ".Pa kernel/drv/[sparcv9|amd64/]usbser_edge" "Edgepor
50 .It Em Client Driver Ta Em Function/Device
51 .It Ta
52 .It Pa kernel/drv/[sparcv9|amd64/]hid Ta HID class
53 .It Pa kernel/drv/[sparcv9|amd64/]hubd Ta hub class
54 .It Pa kernel/drv/[sparcv9|amd64/]scsa2usb Ta mass storage class
55 .It Pa kernel/drv/[sparcv9|amd64/]usbprn Ta printer class
56 .It Pa kernel/drv/[sparcv9|amd64/]usb_as Ta audio streaming class
57 .It Pa kernel/drv/[sparcv9|amd64/]usb_ac Ta audio control class
58 .It Pa kernel/drv/[sparcv9|amd64/]usbvc Ta video class
59 .It Pa kernel/drv/[sparcv9|amd64/]usb_mid Ta multi-interface device
60 .It Pa kernel/drv/[sparcv9|amd64/]usb_ia Ta interface-association driver
61 .It Pa kernel/drv/[sparcv9|amd64/]usbser_edge Ta Edgeport USB to serial port
```

```
62 .It Pa kernel/drv/[sparcv9|amd64/]usbkskp Ta Keyspan USB to serial port
63 .It Pa kernel/drv/[sparcv9|amd64/]usbpsrl Ta pl2303 USB to serial port
64 .It Pa kernel/drv/[sparcv9|amd64/]usbacs Ta CDC ACM class to serial port
65 .It Pa kernel/drv/[sparcv9|amd64/]ugen Ta generic USB driver
66 .It Pa kernel/drv/[sparcv9|amd64/]ohci Ta open host controller driver
67 .It Pa kernel/drv/[sparcv9|amd64/]uhci Ta universal host controller driver
68 .It Pa kernel/drv/[sparcv9|amd64/]ehci Ta enhanced host controller driver
69 .It Pa kernel/drv/[sparcv9|amd64/]xhci Ta extensible host controller driver
70 .El
71 .Bl -column -offset indent ".Pa /kernel/stromod/[sparcv9|amd64/]usb_ah" "Function
72 .It Ta
73 .It Em Client Streams Modules Ta Em Function/Device
74 .It Ta
75 .It Pa /kernel/stromod/[sparcv9|amd64/]usbkbm Ta Keyboard
76 .It Pa /kernel/stromod/[sparcv9|amd64/]usbms Ta Mouse
77 .It Pa /kernel/stromod/[sparcv9|amd64/]usb_ah Ta Audio HID
78 .El
79 .Bl -column -offset indent ".Em Host Controller Interface Drivers" "Extensible H
80 .It Em Host Controller Interface Drivers Ta Em Device
81 .It Ta
82 .It Pa /kernel/drv/[amd64/]xhci Ta Extensible HCI
83 .It Pa /kernel/drv/[sparcv9|amd64/]ehci Ta Enhanced HCI
84 .It Pa /kernel/drv/[sparcv9|amd64/]ohci Ta Open HCI
85 .It Pa /kernel/drv/[sparcv9|amd64/]uhci Ta Universal HCI
86 .El
87 .Sh DIAGNOSTICS
88 The messages described below may appear on the system console as well as being
89 logged.
90 All messages are formatted in the following manner:
91 .Bl -tag -width Sy -offset 2n
92 .It WARNING: Error message...
93 .El
94 .Bl -tag -width Sy -offset 2n
95 .It Sy no driver found for device <device_name> (interface <number> node
96 name=<node_name>)
97 The installed software does not contain a supported driver for this
98 hardware.
99 <number> is the interface number.
100 <name> is either the device path name or the device name.
101 .It Sy Draining callbacks timed out!
102 An internal error occurred.
103 Please reboot your system.
104 If this problem persists, contact your system vendor.
105 .El
106 .Pp
107 The following messages may be logged into the system log.
108 They are formatted in the following manner:
109 .Bd -literal -offset 2n
110 <device path><usb<instance number>>: message...
111 .Ed
112 .Bl -tag -width Sy -offset 2n
113 .It Sy Incorrect USB driver version for <n.m>.
114 Driver is incompatible with USBA framework.
115 .El
116 .Sh SEE ALSO
117 .Xr cfgadm_usb 1M ,
118 .Xr attributes 5 ,
119 .Xr ehci 7D ,
120 .Xr hid 7D ,
121 .Xr hubd 7D ,
122 .Xr ohci 7D ,
123 .Xr scsa2usb 7D ,
124 .Xr ugen 7D ,
125 .Xr uhci 7D ,
126 .Xr usb_ac 7D ,
127 .Xr usb_as 7D ,
```

```
128 .Xr usb_ia 7D ,
129 .Xr usb_mid 7D ,
130 .Xr usbprn 7D ,
131 .Xr usbsacm 7D ,
132 .Xr usbser_edge 7D ,
133 .Xr usbsksp 7D ,
134 .Xr usbspnl 7D ,
135 .Xr usbvc 7D ,
136 .Xr virtualkm 7D ,
137 .Xr xhci 7D ,
138 .Xr Intro 9F ,
139 .Xr Intro 9S
139 .Xr Intro 9S)
140 .Pp
141 .Rs
142 .%T Writing Device Drivers
143 .Re
144 .Rs
145 .%T Universal Serial Bus Specification 3.0
146 .Re
147 .Rs
148 .%T Interface Association Descriptor Engineering Change Notice (ECN)
149 .Re
150 .Rs
151 .%T System Administration Guide: Basic Administration
152 .Re
153 .Sh NOTES
154 Booting from USB mass-storage devices is not supported on SPARC, but is
155 supported on X86.
```

```
*****
33391 Sat Jan 12 22:56:06 2019
new/usr/src/man/man9e/usba_hcdi.9e
10229 Some man pages have incorrect cross-references
*****
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8 .\" http://www.illumos.org/license/CDDL.
10 .\" 
11 .\" Copyright 2016 Joyent, Inc.
13 .\" 
14 .Dd November 18, 2016
15 .Dt USBA_HCDI 9E
16 .Os
17 .Sh NAME
18 .Nm usba_hcdi
19 .Nd USB Host Controller Driver Interface
20 .Sh SYNOPSIS
21 .In sys/usb/usba/hcdi.h
22 .Sh INTERFACE LEVEL
23 .Sy Volatile -
24 illumos USB HCD private function
25 .Pp
26 This describes private interfaces that are not part of the stable DDI.
27 This may be removed or changed at any time.
28 .Sh DESCRIPTION
29 .Sy hcdi
30 drivers are device drivers that support USB host controller hardware.
31 USB host controllers provide an interface between the operating system
32 and USB devices.
33 They abstract the interface to the devices, often provide ways of performing
34 DMA, and also act as the root hub.
35 .Pp
36 .Sy hcdi
37 drivers are part of the illumos USB Architecture (USBA).
38 The
39 .Xr usba 7D
40 driver provides support for many of the surrounding needs of an
41 .Sy hcdi
42 driver and requires that such drivers implement a specific operations
43 vector,
44 .Xr usba_hcdi_ops 9S .
45 These functions cover everything from initialization to performing I/O
46 to USB devices on behalf of client device drivers.
47 .Ss USB Speed and Version Background
48 USB devices are often referred to in two different ways.
49 The first way is the USB version that they conform to.
50 In the wild this looks like USB 1.1, USB 2.0, USB 3.0, etc..
51 However, devices are also referred to as
52 .Sq full-
53 .Sq low-
54 .Sq high-
55 .Sq super-
56 speed devices.
57 .Pp
58 The latter description describes the maximum theoretical speed of a
59 given device.
60 For example, a super-speed device theoretically caps out around 5 Gbit/s,
61 whereas a low-speed device caps out at 1.5 Mbit/s.
```

```
62 .Pp
63 In general, each speed usually corresponds to a specific USB protocol
64 generation.
65 For example, all USB 3.0 devices are super-speed devices.
66 All 'high-speed' devices are USB 2.x devices.
67 Full-speed devices are special in that they can either be USB 1.x or USB 2.x
68 devices.
69 Low-speed devices are only a USB 1.x thing, they did not jump the fire line to
70 USB 2.x.
71 .Pp
72 USB 3.0 devices and ports generally have the wiring for both USB 2.0 and
73 USB 3.0.
74 When a USB 3.0 device is plugged into a USB 2.0 port or hub, then it will report
75 its version as USB 2.1, to indicate that it is actually a USB 3.0 device.
76 .Ss USB Endpoint Background
77 To understand the organization of the functions that make up the hcdi
78 operations vector, it helps to understand how USB devices are organized
79 and work at a high level.
80 .Pp
81 A given USB device is made up of
82 .Em endpoints .
83 A request, or transfer, is made to a specific USB endpoint.
84 These endpoints can provide different services and have different expectations
85 around the size of the data that'll be used in a given request and the
86 periodicity of requests.
87 Endpoints themselves are either used to make one-shot requests, for example,
88 making requests to a mass storage device for a given sector, or for making
89 periodic requests where you end up polling on the endpoint, for example, polling
90 on a USB keyboard for keystrokes.
91 .Pp
92 Each endpoint encodes two different pieces of information: a direction
93 and a type.
94 There are two different directions: IN and OUT.
95 These refer to the general direction that data moves relative to the operating
96 system.
97 For example, an IN transfer transfers data in to the operating system, from the
98 device.
99 An OUT transfer transfers data from the operating system, out to the device.
100 .Pp
101 There are four different kinds of endpoints:
102 .Bl -tag -width Sy -offset indent
103 .It Sy BULK
104 These transfers are large transfers of data to or from a device.
105 The most common use for bulk transfers is for mass storage devices.
106 Though they are often also used by network devices and more.
107 Bulk endpoints do not have an explicit time component to them.
108 They are always used for one-shot transfers.
109 .It Sy CONTROL
110 These transfers are used to manipulate devices themselves and are used
111 for USB protocol level operations (whether device-specific,
112 class-specific, or generic across all of USB).
113 Unlike other transfers, control transfers are always bi-directional and use
114 different kinds of transfers.
115 .It Sy INTERRUPT
116 Interrupt transfers are used for small transfers that happen
117 infrequently, but need reasonable latency.
118 A good example of interrupt transfers is to receive input from a USB keyboard.
119 Interrupt-IN transfers are generally polled.
120 Meaning that a client (device driver) opens up an interrupt-IN endpoint to poll
121 on it, and receives periodic updates whenever there is information available.
122 However, interrupt transfers can be used as one-shot transfers both going IN and
123 OUT.
124 .It Sy ISOCHRONOUS
125 These transfers are things that happen once per time-interval at a very
126 regular rate.
127 A good example of these transfers are for audio and video.
```

128 A device may describe an interval as 10ms at which point it will read or  
 129 write the next batch of data every 10ms and transform it for the user.  
 130 There are no one-shot Isochronous-IN transfers.  
 131 There are one-shot Isochronous-OUT transfers, but these are used by device  
 132 drivers to always provide the system with sufficient data.  
 133 .El  
 134 .Pp  
 135 To find out information about the endpoints, USB devices have a series  
 136 of descriptors that cover different aspects of the device.  
 137 For example, there are endpoint descriptors which cover the properties of  
 138 endpoints such as the maximum packet size or polling interval.  
 139 .Pp  
 140 Descriptors exist at all levels of USB.  
 141 For example, there are general descriptors for every device.  
 142 The USB device descriptor is described in  
 143 .Xr usb\_dev\_descr 9S .  
 144 Host controllers will look at these descriptors to ensure that they  
 145 program the device correctly; however, they are more often used by  
 146 client device drivers.  
 147 There are also descriptors that exist at a class level.  
 148 For example, the hub class has a class-specific descriptor which describes  
 149 properties of the hub.  
 150 That information is requested for and used by the hub driver.  
 151 .Pp  
 152 All of the different descriptors are gathered by the system and placed  
 153 into a tree, with device descriptors, configurations, endpoints, and  
 154 more.  
 155 Client device drivers gain access to this tree and then use them to then open  
 156 endpoints, which are called pipes in USBA (and some revisions of the USB  
 157 specification).  
 158 .Pp  
 159 Each pipe gives access to a specific endpoint on the device which can be  
 160 used to perform transfers of a specific type and direction.  
 161 For example, a mass storage device often has three different endpoints, the  
 162 default control endpoint (which every device has), a Bulk-IN endpoint, and a  
 163 Bulk-OUT endpoint.  
 164 The device driver ends up with three open pipes.  
 165 One to the default control endpoint to configure the device, and then the  
 166 other two are used to perform I/O.  
 167 .Pp  
 168 These routines translate more or less directly into calls to a host  
 169 controller driver.  
 170 A request to open a pipe takes an endpoint descriptor that describes the  
 171 properties of the pipe, and the host controller driver goes through and does any  
 172 work necessary to allow the client device driver to access it.  
 173 Once the pipe is open, it either makes one-shot transfers specific to the  
 174 transfer type or it starts performing a periodic poll of an endpoint.  
 175 .Pp  
 176 All of these different actions translate into requests to the host  
 177 controller.  
 178 The host controller driver itself is in charge of making sure that all of the  
 179 required resources for polling are allocated with a request and then proceed to  
 180 give the driver's periodic callbacks.  
 181 .Pp  
 182 For each of the different operations described above, there is a corresponding  
 183 entry in  
 184 .Xr usba\_hcdi\_ops 9S .  
 185 For example, open an endpoint, the host controller has to implement  
 186 .Xr usba\_hcdi\_pipe\_open 9E  
 187 and for each transfer type, there is a different transfer function.  
 188 One example is  
 189 .Xr usba\_hcdi\_pipe\_bulk\_xfer 9E .  
 190 See  
 191 .Xr usba\_hcdi\_ops 9S  
 192 for a full list of the different function endpoints.  
 193 .Ss HCDI Initialization

194 hcdi drivers are traditional character device drivers.  
 195 To start with, an hcdi driver should define traditional  
 196 .Xr dev\_ops 9S  
 197 and  
 198 .Xr cb\_ops 9S  
 199 structures.  
 200 To get started, the device driver should perform normal device initialization in  
 201 an  
 202 .Xr attach 9E  
 203 entry point.  
 204 For example, PCI devices should setup the device's registers and program them.  
 205 In addition, all devices should configure interrupts, before getting ready to  
 206 call into the USBA.  
 207 Each instance of a device must be initialized and registered with the USBA.  
 208 .Pp  
 209 To initialize a device driver with the USBA, it must first call  
 210 .Xr usba\_alloc\_hcdi\_ops 9F .  
 211 This provides a device driver with the  
 212 .Xr usba\_hcdi\_ops 9S  
 213 structure that it must fill out.  
 214 Please see  
 215 .Xr usba\_hcdi\_ops 9S  
 216 for instructions on how it should be filled out.  
 217 Once filled out, the driver should call  
 218 .Xr usba\_hcdi\_register 9F .  
 219 .Pp  
 220 If the call to register fails for whatever reason, the device driver  
 221 should fail its  
 222 .Xr attach 9E  
 223 entry point.  
 224 After this call successfully completes, the driver should assume that any of the  
 225 functions it registered with the call to  
 226 .Xr usba\_hcdi\_register 9F  
 227 will be called at this point.  
 228 .Ss Binding the Root Hub  
 229 Once this is set up, the hcdi driver must initialize its root hub by  
 230 calling  
 231 .Xr usba\_hubdi\_bind\_root\_hub 9F .  
 231 Xr usba\_hcdi\_bind\_root\_hub 9F .  
 232 To bind the root hub, the device driver is responsible for providing a  
 233 device descriptor that represents the hardware.  
 234 Depending on the hardware, this descriptor may be either static or dynamic.  
 234 Depending on the hardware, this descriptor may be either static or dynamic.  
 235 .Pp  
 236 This device descriptor should be a packed descriptor that is the same  
 237 that would be read off of the device.  
 238 The device descriptor should match a hub of a USB generation equivalent to the  
 239 maximum speed of the device.  
 240 For example, a USB 3.0 host controller would use a USB 3.0 hub's device  
 241 descriptor.  
 242 Similarly, a USB 2.0 host controller would use a USB 2.0 hub's device  
 243 descriptor.  
 244 .Pp  
 245 The descriptor first starts with a USB configuration descriptor, as  
 246 defined in  
 247 .Xr usb\_cfg\_descr 9S .  
 248 It is then followed by an interface descriptor.  
 249 The definition for it can be found in  
 250 .Xr usb\_if\_descr 9S .  
 251 Next is the endpoint descriptor for the single Interrupt-IN endpoint  
 252 that all hubs have as defined in  
 253 .Xr usb\_ep\_descr 9S .  
 254 Finally, any required companion descriptors should be used.  
 255 For example, a USB 3.x hub will have a  
 256 .Xr usb\_ss\_comp\_descr 9S  
 257 appended to the structure.

```

258 .Pp
259 Note, that the structure needs to be packed, as though it were read from
260 a device.
261 The structures types referenced in
262 .Xr usb_cfg_descr 9S ,
263 .Xr usb_if_descr 9S ,
264 .Xr usb_ep_descr 9S ,
265 and
266 .Xr usb_ep_ss_comp_descr 9S
267 are not packed for this purpose.
268 They should not be used as they have gaps added by the compiler for alignment.
269 .Pp
270 Once assembled, the device driver should call
271 .Xr usba_hubdi_bind_root_hub 9F .
272 This will cause an instance of the
273 .Xr hubd 7D
274 driver to be attached and associated with the root controller.
275 As such, driver writers need to ensure that all initialization is done prior to
276 loading the root hub.
277 Once successfully loaded, driver writers should assume that they'll get other
278 calls into the driver's operation vector before the call to
279 .Xr usba_hubdi_bind_root_hub 9F .
279 .Xr usba_hubdi_bind_root_hub 9F .
280 .Pp
281 If the call to
282 .Xr usba_hubdi_bind_root_hub 9F
283 failed for whatever reason, the driver should unregister from USBA (see
284 the next section), unwind all of the resources it has allocated, and
285 return
286 .Dv DDI_FAILURE .
287 .Pp
288 Otherwise, at this point it's safe to assume that the instance of the
289 device has initialized successfully and the driver should return
290 .Dv DDI_SUCCESS .
291 .Ss Driver Teardown
292 When a driver's
293 .Xr detach 9E
294 entry point has been called, before anything else is done, the device
295 driver should unbind its instance of the root hub and then unregister
296 from the USBA.
297 .Pp
298 To unbind the root hub, the instance of the driver should call
299 .Xr usba_hubdi_unbind_root_hub 9F .
300 If for some reason that function does not return
301 .Sy USB_SUCCESS ,
302 then the device driver should fail the call to
303 .Xr detach 9E
304 and return
305 .Dv DDI_FAILURE .
306 .Pp
307 Once the root hub has been unbound, the device driver can continue by
308 removing its hcdi registration with USBA.
309 To do this, the driver should call
310 .Xr usba_hcdi_unregister 9F .
311 As this call always succeeds, at this point, it is safe for the driver
312 to tear down all the rest of its resources and successfully detach.
313 .Ss State Tracking and Minor Numbers
314 Because a host controller driver is also a root hub, there are a few
315 constraints around how the device must store its per-instance state and
316 how its minor numbers are used.
317 .Pp
318 hcdi drivers
319 .Em must not
320 store any data with
321 .Xr ddi_get_driver_private 9F .
322 This private data is used by USBA.

```

```

323 If it has been called before the device registers, then it will fail to register
324 successfully with the USBA.
325 However, setting it after that point will corrupt the state of the USBA and
326 likely lead to data corruption and crashes.
327 .Pp
328 Similarly, part of the minor number space is utilized to represent
329 various devices like the root hub.
330 Whenever a device driver is presented with a
331 .Ft dev_t
332 and it's trying to extract the minor number, it must take into account
333 the constant
334 .Dv HUBD_IS_ROOT_HUB .
335 The following shows how to perform this, given a
336 .Ft dev_t
337 called
338 .Ft dev :
339 .Bd -literal -offset indent
340 minor_t minor = getminor(dev) & ~HUBD_IS_ROOT_HUB;
341 .Ed
342 .Ss Required Character and Device Operations
343 The USBA handles many character and device operations entry points for a
344 device driver or has strict rules on what a device driver must do in
345 them.
346 This section summarizes those constraints.
347 .Pp
348 In the
349 .Xr dev_ops 9S
350 structure, the following members have special significance:
351 .Bl -tag -offset indent -width Sy
352 .It Sy devo_bus_ops
353 The
354 .Sy devo_bus_ops
355 member should be set to the symbol
356 .Sy usba_hubdi_busops .
357 See
358 .Xr usba_hubdi_dev_ops 9F
359 for more information.
360 .It Sy devo_power
361 The
362 .Sy devo_power
363 member should be set to the symbol
364 .Sy usba_hubdi_root_hub_power .
365 See
366 .Xr usba_hubdi_dev_ops 9F
367 for more information.
368 .El
369 .Pp
370 The other standard entry points for character devices,
371 .Sy devo_getinfo ,
372 .Sy devo_attach ,
373 and
374 .Sy devo_detach
375 should be implemented normally as per
376 .Xr getinfo 9E ,
377 .Xr attach 9E ,
378 and
379 .Xr detach 9E
380 respectively.
381 .Pp
382 The following members of the
383 .Xr cb_ops 9S
384 operations vector must be implemented and set:
385 .Bl -tag -offset indent -width Sy
386 .It Sy cb_open
387 The device driver should implement an
388 .Xr open 9E

```

389 entry point that obtains access to its  
 390 .Sy dev\_info\_t  
 391 and then calls  
 392 .Xr usba\_hubdi\_open 9F .  
 393 See  
 394 .Xr usba\_hcdi\_cb\_open 9E  
 395 for more information.  
 396 .It Sy cb\_close  
 397 The device driver should implement a  
 398 .Xr close 9E  
 399 entry point that obtains access to its  
 400 .Sy dev\_info\_t  
 401 and then calls  
 402 .Xr usba\_hubdi\_close 9F .  
 403 See  
 404 .Xr usba\_hcdi\_cb\_close 9E  
 405 for more information.  
 406 .It Sy cb\_ioctl  
 407 The device driver should implement a  
 408 .Xr ioctl 9E  
 409 entry point that obtains access to its  
 410 .Sy dev\_info\_t  
 411 and then calls  
 412 .Xr usba\_hubdi\_ioctl 9F .  
 413 .Pp  
 414 If the device driver wishes to have private ioctls, it may check the  
 415 ioctl command before calling  
 416 .Xr usba\_hubdi\_ioctl 9F .  
 417 Because the  
 418 .Xr usba\_hubdi\_ioctl 9F  
 419 function normally takes care of checking for the proper privileges,  
 420 device drivers must verify that a caller has appropriate privileges  
 421 before processing any private ioctls.  
 422 .Pp  
 423 See  
 424 .Xr usba\_hcdi\_cb\_ioctl 9E  
 425 for more information.  
 426 .It Sy cb\_prop\_op  
 427 The  
 428 .Sy cb\_prop\_op  
 429 member should be set to  
 430 .Xr ddi\_prop\_op 9F .  
 431 .It Sy cb\_flag  
 432 The  
 433 .Sy cb\_flag  
 434 member should be set to the bitwise-inclusive-OR of the  
 435 .Sy D\_MP  
 436 flag  
 437 and the  
 438 .Sy D\_HOTPLUG  
 439 flag.  
 440 .El  
 441 .Pp  
 442 All other members of the  
 443 .Xr cb\_ops 9S  
 444 structure should not be implemented and set to the appropriate value,  
 445 such as  
 446 .Xr nodev 9F  
 447 or  
 448 .Xr nochpoll 9F .  
 449 .Ss Locking  
 450 In general, the USBA calls into a device driver through one of the  
 451 functions that it has register in the  
 452 .Xr usba\_hcdi\_ops 9S  
 453 structure.  
 454 However, in response to a data transfer, the device driver will need to call

455 back into the USBA by calling  
 456 .Xr usba\_hcdi\_cb 9F .  
 457 .Pp  
 458 A device driver must hold  
 459 .Em no locks  
 460 across the call to  
 461 .Xr usba\_hcdi\_cb 9F .  
 462 Returning an I/O to the USBA, particularly an error, may result in  
 463 another call back to one of the  
 464 .Xr usba\_hcdi\_cb 9F  
 465 vectors.  
 466 .Pp  
 467 Outside of that constraint, the device driver should perform locking of  
 468 its data structures.  
 469 It should assume that many of its entry points will be called in parallel across  
 470 the many devices that exist.  
 471 .Pp  
 472 There are certain occasions where a device driver may have to enter the  
 473 .Sy p\_mutex  
 474 member of the  
 475 .Xr usba\_pipe\_handle\_data 9S  
 476 structure when duplicating isochronous or interrupt requests.  
 477 The USBA should in general, not hold this lock across calls to the HCD driver,  
 478 and in turn, the HCD driver should not hold this lock across any calls back to  
 479 the USBA.  
 480 As such, the HCD driver should make sure to incorporate the lock ordering of  
 481 this mutex into its broader lock ordering and operational theory.  
 482 Generally, the  
 483 .Sy p\_mutex  
 484 mutex will be entered after any HCD-specific locks.  
 485 .Pp  
 486 The final recommendation is that due to the fact that the host  
 487 controller driver provides services to a multitude of USB devices at  
 488 once, it should strive not to hold its own internal locks while waiting  
 489 for I/O to complete, such as an issued command.  
 490 This is particularly true if the device driver uses coarse grained locking.  
 491 If the device driver does not pay attention to these conditions, it can easily  
 492 lead to service stalls.  
 493 .Ss Synchronous and Asynchronous Entry Points  
 494 The majority of the entry points that a host controller driver has to  
 495 implement are  
 496 .Em synchronous .  
 497 All actions that the entry point implies must be completed before the  
 498 entry point returns.  
 499 However, the various transfer routines:  
 500 .Xr usba\_hcdi\_pipe\_bulk\_xfer 9E ,  
 501 .Xr usba\_hcdi\_pipe\_ctrl\_xfer 9E ,  
 502 .Xr usba\_hcdi\_pipe\_intr\_xfer 9E ,  
 503 and  
 504 .Xr usba\_hcdi\_pipe\_isoc\_xfer 9E ,  
 505 are ultimately  
 506 .Em asynchronous  
 507 entry points.  
 508 .Pp  
 509 Each of the above entry points begins one-shot or periodic I/O.  
 510 When the driver returns  
 511 .Sy USB\_SUCCESS  
 512 from one of those functions, it is expected that it will later call  
 513 .Xr usba\_hcdi\_cb 9F  
 514 when the I/O completes, whether successful or not.  
 515 It is the driver's responsibility to keep track of these outstanding transfers  
 516 and time them out.  
 517 For more information on timeouts, see the section  
 518 .Ss Endpoint Timeouts .  
 519 .Pp  
 520 If for some reason, the driver fails to initialize the I/O transfer and

521 indicates this by returning a value other than  
 522 .Sy USB\_SUCCESS  
 523 from its entry point, then it must not call  
 524 .Xr usba\_hcdi\_cb 9F  
 525 for that transfer.  
 526 .Ss Short Transfers  
 527 Not all USB transfers will always return the full amount of data  
 528 requested in the transfer.  
 529 Host controller drivers need to be ready for this and report it.  
 530 Each request structure has an attribute to indicate whether or not short  
 531 transfers are OK.  
 532 If a short transfer is OK, then the driver should update the transfer length.  
 533 Otherwise, it should instead return an error.  
 534 See the individual entry point pages for more information.  
 535 .Ss Root Hub Management  
 536 As was mentioned earlier, every host controller is also a root hub.  
 537 The USBA interfaces with the root hub no differently than any other hub.  
 538 The USBA will open pipes and issue both control and periodic interrupt-IN  
 539 transfers to the root hub.  
 540 .Pp  
 541 In the host controller driver's  
 542 .Xr usba\_hcdi\_pipe\_open 9E  
 543 entry point, it already has to look at the pipe handle it's been given  
 544 to determine the attributes of the endpoint it's looking at.  
 545 However, before it does that it needs to look at the USB address of the device  
 546 the handle corresponds to.  
 547 If the device address matches the macro  
 548 .Sy ROOT\_HUB\_ADDR ,  
 549 then this is a time where the USBA is opening one of the root hub's  
 550 endpoints.  
 551 .Pp  
 552 Because the root hub is generally not a real device, the driver will  
 553 likely need to handle this in a different manner from traditional pipes.  
 554 .Pp  
 555 The device driver will want to check for the presence of the device's  
 556 address with the following major entry points and change its behavior as  
 557 described:  
 558 .Bl -tag -width Fn  
 559 .It Fn usba\_hcdi\_pipe\_ctrl\_xfer  
 560 The device driver needs to intercept control transfers to the root hub  
 561 and translate them into the appropriate form for the device.  
 562 For example, the device driver may be asked to get a port's status.  
 563 It should determine the appropriate way to perform this, such as reading a  
 564 PCI memory-mapped register, and then create the appropriate response.  
 565 .Pp  
 566 The device driver needs to implement all of the major hub specific  
 567 request types.  
 568 It is recommended that driver writers see what existing host controller drivers  
 569 implement and what the hub driver currently requires to implement this.  
 570 .Pp  
 571 Aside from the fact that the request is not being issued to a specific  
 572 USB device, a request to the root hub follows the normal rules for a  
 573 transfer and the device driver will need to call  
 574 .Xr usba\_hcdi\_cb 9F  
 575 to indicate that it has finished.  
 576 .It Fn usba\_hcdi\_pipe\_bulk\_xfer  
 577 The root hub does not support bulk transfers.  
 578 If for some reason one is requested on the root hub, the driver should return  
 579 .Sy USB\_NOT\_SUPPORTED .  
 580 .It Fn usba\_hcdi\_pipe\_intr\_xfer  
 581 The root hub only supports periodic interrupt-IN transfers.  
 582 If an interrupt-OUT transfer or an interrupt-IN transfer with the  
 583 .Sy USB\_ATTRS\_ONE\_XFER  
 584 attribute is set, then the driver should return  
 585 .Sy USB\_NOT\_SUPPORTED .  
 586 .Pp

587 Otherwise, this represents a request to begin polling on the status  
 588 endpoint for a hub.  
 589 This is a periodic request, see the section  
 590 .Sx Device Addressing  
 591 Every USB device has an address assigned to it.  
 592 The addresses assigned to each controller are independent.  
 593 The root hub of a given controller always has an address of  
 594 .Dv ROOT\_HUB\_ADDR .  
 595 .Pp  
 596 In general, addresses are assigned by the USBA and stored in the  
 597 .Sy usb\_addr  
 598 member of a  
 599 .Xr usba\_device\_t 9S .  
 600 However, some controllers, such as xHCI, require that they control the  
 601 device addressing themselves to facilitate their functionality.  
 602 In such a case, the USBA still assigns every device an address; however, the  
 603 actual address on the bus will be different and assigned by the HCD  
 604 driver.  
 605 An HCD driver that needs to address devices itself must implement the  
 606 .Xr usba\_hcdi\_device\_address 9E  
 607 entry point.  
 608 .Sx Endpoint Polling  
 609 more on the semantics of polling and periodic requests.  
 610 .Pp  
 611 Here, the device driver will need to provide data and perform a callback  
 612 whenever the state of one of the ports changes on its virtual hub.  
 613 Different drivers have different ways to perform this.  
 614 For example, some hardware will provide an interrupt to indicate that a change  
 615 has occurred.  
 616 Other hardware does not, so this must be simulated.  
 617 .Pp  
 618 The way that the status data responses must be laid out is based in the  
 619 USB specification.  
 620 Generally, there is one bit per port and the driver sets the bit for the  
 621 corresponding port that has had a change.  
 622 .It Fn usba\_hcdi\_pipe\_isoc\_xfer  
 623 The root hub does not support isochronous transfers.  
 624 If for some reason one is requested on the root hub, the driver should return  
 625 .It Fn usba\_hcdi\_pipe\_close  
 626 When a pipe to the root hub is closed, the device driver should tear  
 627 down whatever it created as part of opening the pipe.  
 628 In addition, if the pipe was an interrupt-IN pipe, if it has not already had  
 629 polling stop, it should stop the polling as part of closing the pipe.  
 630 .It Fn usba\_hcdi\_pipe\_stop\_intr\_polling  
 631 When a request to stop interrupt polling comes in and it is directed  
 632 towards the root hub, the device driver should cease delivering  
 633 callbacks upon changes in port status being detected.  
 634 However, it should continue keeping track of what changes have occurred for the  
 635 next time that polling starts.  
 636 .Pp  
 637 The primary request that was used to start polling should be returned,  
 638 as with any other request to stop interrupt polling.  
 639 .It Fn usba\_hcdi\_pipe\_stop\_isoc\_polling  
 640 The root hub does not support isochronous transfers.  
 641 If for some reason it calls asking to stop polling on an isochronous transfer,  
 642 the device driver should log an error and return  
 643 .Sy USB\_NOT\_SUPPORTED .  
 644 .El  
 645 .Ss Endpoint Polling  
 646 Both interrupt-IN and isochronous-IN endpoints are generally periodic or  
 647 polled endpoints.  
 648 interrupt-IN polling is indicated by the lack of the  
 649 .Sy USB\_ATTRS\_ONE\_XFER  
 650 flag being set.  
 651 All isochronous-IN transfer requests are requests for polling.  
 652 .Pp

653 Polling operates in a different fashion from traditional transfers.  
 654 With a traditional transfer, a single request is made and a single callback  
 655 is made for it, no more and no less.  
 656 With a polling request, things are different.  
 657 A single transfer request comes in; however, the driver needs to keep ensuring  
 658 that transfers are being made within the polling bounds until a request to stop  
 659 polling comes in or a fatal error is encountered.  
 660 .Pp  
 661 In many cases, as part of initializing the request, the driver will  
 662 prepare several transfers such that there is always an active transfer,  
 663 even if there is some additional latency in the system.  
 664 This ensures that even if there is a momentary delay in the device driver  
 665 processing a given transfer, I/O data will not be lost.  
 666 .Pp  
 667 The driver must not use the original request structure until it is ready  
 668 to return due to a request to stop polling or an error.  
 669 To obtain new interrupt and isochronous request structures, the driver should  
 670 use the  
 671 .Xr usba\_hcdi\_dup\_intr\_req 9F  
 672 and  
 673 .Xr usba\_hcdi\_dup\_isoc\_req 9F  
 674 functions.  
 675 These functions also allocate the resulting message blocks that data should be  
 676 copied into.  
 677 Note, it is possible that memory will not be available to duplicate such a  
 678 request.  
 679 In this case, the driver should use the original request to return an error and  
 680 stop polling.  
 681 .Ss Request Memory and DMA  
 682 Each of the four transfer operations,  
 683 .Xr usba\_hcdi\_pipe\_ctrl\_xfer 9E ,  
 684 .Xr usba\_hcdi\_pipe\_bulk\_xfer 9E ,  
 685 .Xr usba\_hcdi\_pipe\_intr\_xfer 9E ,  
 686 and  
 687 .Xr usba\_hcdi\_pipe\_isoc\_xfer 9E  
 688 give data to hcdi drivers in the form of  
 689 .Xr mblk 9S  
 690 structures.  
 691 To perform the individual transfers, most systems devices will leverage DMA.  
 692 Drivers should allocate memory suitable for DMA for each transfer that they need  
 693 to perform and copy the data to and from the message blocks.  
 694 .Pp  
 695 Device drivers should not use  
 696 .Xr desballoc 9F  
 697 to try and bind the memory used for DMA transfers to a message block nor  
 698 should they bind the message block's read pointer to a DMA handle using  
 699 .Xr ddi\_dma\_addr\_bind\_handle 9F .  
 700 .Pp  
 701 While this isn't a strict rule, the general framework does not assume  
 702 that there are going to be outstanding message blocks that may be in use  
 703 by the controller or belong to the controller outside of the boundaries  
 704 of a given call to one of the transfer functions and its corresponding  
 705 callback.  
 706 .Ss Endpoint Timeouts  
 707 The host controller is in charge of watching I/Os for timeouts.  
 708 For any request that's not periodic (an interrupt-IN or isochronous-IN)  
 709 transfer, the host controller must set up a timeout handler.  
 710 If that timeout expires, it needs to stop the endpoint, remove that request, and  
 711 return to the caller.  
 712 .Pp  
 713 The timeouts are specified in seconds in the request structures.  
 714 For bulk timeouts, the request is in the  
 715 .Sy bulk\_timeout  
 716 member of the  
 717 .Xr usb\_bulk\_req 9S  
 718 structure.

719 The interrupt and control transfers also have a similar member in their request  
 720 structures, see  
 721 .Xr usb\_intr\_req 9S  
 722 and  
 723 .Xr usb\_ctrl\_req 9S .  
 724 If any of the times is set to zero, the default USBA timeout should be  
 725 used.  
 726 In that case, drivers should set the value to the macro  
 727 .Sy HCDI\_DEFAULT\_TIMEOUT ,  
 728 which is a time in seconds.  
 729 .Pp  
 730 Isochronous-OUT transfers do not have a timeout defined on their request  
 731 structure, the  
 732 .Xr usb\_isoc\_req 9S .  
 733 Due to the periodic nature of even outbound requests, it is less likely  
 734 that a timeout will occur; however, driver writers are encouraged to  
 735 still set up the default timeout,  
 736 .Sy HCDI\_DEFAULT\_TIMEOUT ,  
 737 on those transfers.  
 738 .Pp  
 739 The exact means of performing the timeout is best left to the driver  
 740 writer as the way that hardware exposes scheduling of different  
 741 endpoints will vary.  
 742 One strategy to consider is to use the  
 743 .Xr timeout 9F  
 744 function at a one second period while I/O is ongoing on a per-endpoint  
 745 basis.  
 746 Because the time is measured in seconds, a driver writer can decrement a counter  
 747 for a given outstanding transfer once a second and then if it reaches zero,  
 748 interject and stop the endpoint and clean up.  
 749 .Pp  
 750 This has the added benefit that when no I/O is scheduled, then there  
 751 will be no timer activity, reducing overall system load.  
 752 .Ss Notable Types and Structures  
 753 The following are data structures and types that are used throughout  
 754 host controller drivers:  
 755 .Bl -tag -width Vt  
 756 .It Sy usb\_cfg\_descr  
 757 The configuration descriptor.  
 758 A device may have one or more configurations that it supports that can be  
 759 switched between.  
 760 The descriptor is documented in  
 761 .Xr usb\_cfg\_descr 9S .  
 762 .It Sy usb\_dev\_descr  
 763 The device descriptor.  
 764 A device descriptor contains basic properties of the device such as the USB  
 765 version, device and vendor information, and the maximum packet size.  
 766 This will often be used when setting up a device for the first time.  
 767 It is documented in  
 768 .Xr usb\_dev\_descr 9S .  
 769 .It Sy usb\_ep\_descr  
 770 The endpoint descriptor.  
 771 An endpoint descriptor contains the basic properties of an endpoints such as its  
 772 type and packet size.  
 773 Every endpoint on a given USB device has an endpoint descriptor.  
 774 It is documented in  
 775 .Xr usb\_ep\_descr 9S .  
 776 .It Sy usb\_xep\_descr  
 777 The extended endpoint descriptor.  
 778 This structure is used to contain the endpoint descriptor, but also additional  
 779 endpoint companion descriptors which are a part of newer USB standards.  
 780 It is documented in  
 781 .Xr usb\_ep\_xdescr 9S .  
 782 .It Sy usb\_bulk\_req  
 783 This structure is filled out by client device drivers that want to make  
 784 a bulk transfer request.

785 Host controllers use this and act on it to perform bulk transfers to USB  
786 devices.  
787 The structure is documented in  
788 .Xr usb\_bulk\_req 9S .  
789 .It Sy usb\_ctrl\_req  
790 This structure is filled out by client device drivers that want to make  
791 a control transfer request.  
792 Host controllers use this and act on it to perform bulk transfers to USB  
793 devices.  
794 The structure is documented in  
795 .Xr usb\_ctrl\_req 9S .  
796 .It Sy usb\_intr\_req  
797 This structure is filled out by client device drivers that want to make  
798 an interrupt transfer request.  
799 Host controllers use this and act on it to perform bulk transfers to USB  
800 devices.  
801 The structure is documented in  
802 .Xr usb\_intr\_req 9S .  
803 .It Sy usb\_isoc\_req  
804 This structure is filled out by client device drivers that want to make  
805 an isochronous transfer request.  
806 Host controllers use this and act on it to perform bulk transfers to USB  
807 devices.  
808 The structure is documented in  
809 .Xr usb\_isoc\_req 9S .  
810 .It Vt usb\_flags\_t  
811 These define a set of flags that are used on certain entry points.  
812 These generally determine whether or not the entry points should block for  
813 memory allocation.  
814 Individual manual pages indicate the flags that drivers should consult.  
815 .It Vt usb\_port\_status\_t  
816 The  
817 .Sy usb\_port\_status\_t  
818 determines the current negotiated speed of the device.  
819 The following are valid values that this may be:  
820 .Bl -tag -width Sy  
821 .It Sy USBA\_LOW\_SPEED\_DEV  
822 The device is running as a low speed device.  
823 This may be a USB 1.x or USB 2.0 device.  
824 .It Sy USBA\_FULL\_SPEED\_DEV  
825 The device is running as a full speed device.  
826 This may be a USB 1.x or USB 2.0 device.  
827 .It Sy USBA\_HIGH\_SPEED\_DEV  
828 The device is running as a high speed device.  
829 This is a USB 2.x device.  
830 .It Sy USBA\_SUPER\_SPEED\_DEV  
831 The device is running as a super speed device.  
832 This is a USB 3.0 device.  
833 .It Vt usb\_cr\_t  
834 This is a set of codes that may be returned as a part of the call to  
835 .Xr usba\_hcdi\_cb 9F .  
836 The best place for the full set of these is currently in the source  
837 control headers.  
838 .El  
839 .El  
840 .Ss Interrupts  
841 While some hardware supports more than one interrupt queue, a single  
842 interrupt is generally sufficient for most host controllers.  
843 If the controller supports interrupt coalescing, then the driver should  
844 generally enable it and set it to a moderate rate.  
845 .Ss driver.conf considerations  
846 Due to the way host controller drivers need to interact with hotplug,  
847 drivers should generally set the  
848 .Sy ddi-forceattach  
849 property to one in their  
850 .Xr driver.conf 4

851 file.  
852 .Sh SEE ALSO  
853 .Xr driver.conf 4 ,  
854 .Xr hubd 7D ,  
855 .Xr usba 7D ,  
856 .Xr attach 9E ,  
857 .Xr close 9E ,  
858 .Xr detach 9E ,  
859 .Xr getinfo 9E ,  
860 .Xr ioctl 9E ,  
861 .Xr open 9E ,  
862 .Xr usba\_hcdi\_cb\_close 9E ,  
863 .Xr usba\_hcdi\_cb\_ioctl 9E ,  
864 .Xr usba\_hcdi\_cb\_open 9E ,  
865 .Xr usba\_hcdi\_pipe\_bulk\_xfer 9E ,  
866 .Xr usba\_hcdi\_pipe\_ctrl\_xfer 9E ,  
867 .Xr usba\_hcdi\_pipe\_intr\_xfer 9E ,  
868 .Xr usba\_hcdi\_pipe\_isoc\_xfer 9E ,  
869 .Xr usba\_hcdi\_pipe\_open 9E ,  
870 .Xr ddi\_dma\_addr\_bind\_handle 9F ,  
871 .Xr ddi\_get\_driver\_private 9F ,  
872 .Xr ddi\_prop\_op 9F ,  
873 .Xr desballoc 9F ,  
874 .Xr nochpoll 9F ,  
875 .Xr nodev 9F ,  
876 .Xr timeout 9F ,  
877 .Xr usba\_alloc\_hcdi\_ops 9F ,  
878 .Xr usba\_hcdi\_cb 9F ,  
879 .Xr usba\_hcdi\_dup\_intr\_req 9F ,  
880 .Xr usba\_hcdi\_dup\_isoc\_req 9F ,  
881 .Xr usba\_hcdi\_register 9F ,  
882 .Xr usba\_hcdi\_unregister 9F ,  
883 .Xr usba\_hubdi\_bind\_root\_hub 9F ,  
884 .Xr usba\_hubdi\_close 9F ,  
885 .Xr usba\_hubdi\_dev\_ops 9F ,  
886 .Xr usba\_hubdi\_ioctl 9F ,  
887 .Xr usba\_hubdi\_open 9F ,  
888 .Xr usba\_hubdi\_unbind\_root\_hub 9F ,  
889 .Xr cb\_ops 9S ,  
890 .Xr dev\_ops 9S ,  
891 .Xr mblk 9S ,  
892 .Xr usb\_bulk\_req 9S ,  
893 .Xr usb\_cfg\_descr 9S ,  
894 .Xr usb\_ctrl\_req 9S ,  
895 .Xr usb\_dev\_descr 9S ,  
896 .Xr usb\_ep\_descr 9S ,  
897 .Xr usb\_ep\_ss\_comp\_descr 9S ,  
898 .Xr usb\_if\_descr 9S ,  
899 .Xr usb\_intr\_req 9S ,  
900 .Xr usb\_isoc\_req 9S ,  
901 .Xr usba\_hcdi\_ops 9S

```
*****
70765 Sat Jan 12 22:56:06 2019
new/usr/src/man/man9f/Makefile
10229 Some man pages have incorrect cross-references
*****
1 #
2 # This file and its contents are supplied under the terms of the
3 # Common Development and Distribution License (" CDDL"), version 1.0.
4 # You may only use this file in accordance with the terms of version
5 # 1.0 of the CDDL.
6 #
7 # A full copy of the text of the CDDL should have accompanied this
8 # source. A copy of the CDDL is also available via the Internet at
9 # http://www.illumos.org/license/CDDL.
10 #

12 #
13 # Copyright 2017, Richard Lowe
14 # Copyright 2014 Garrett D'Amore <garrett@damore>
15 # Copyright (c) 2017, Joyent, Inc.
16 # Copyright 2016 Nexenta Systems, Inc.
17 # Copyright 2016 Hans Rosenfeld <rosenfeld@grumpf.hope-2000.org>
18 #

20 include      $(SRC)/Makefile.master

22 MANSECT=    9f

24 MANFILES=   ASSERT.9f \
25          Intro.9f \
26          OTHERQ.9f \
27          RD.9f \
28          SAMESTR.9f \
29          STRUCT_DECL.9f \
30          WR.9f \
31          adjmsg.9f \
32          allocb.9f \
33          atomic_add.9f \
34          atomic_and.9f \
35          atomic_bits.9f \
36          atomic_cas.9f \
37          atomic_dec.9f \
38          atomic_inc.9f \
39          atomic_ops.9f \
40          atomic_or.9f \
41          atomic_swap.9f \
42          avl.9f \
43          backq.9f \
44          bcanput.9f \
45          bcmp.9f \
46          bcopy.9f \
47          bioclone.9f \
48          biodone.9f \
49          bioerror.9f \
50          biofini.9f \
51          bioinit.9f \
52          biomodified.9f \
53          bioreset.9f \
54          biosize.9f \
55          biowait.9f \
56          bp_copyin.9f \
57          bp_copyout.9f \
58          bp_mapin.9f \
59          bp_mapout.9f \
60          bttop.9f \
61          btopr.9f \
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129      csx_SetHandleOffset.9f
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144      ddi_dev_is_needed.9f
145      ddi_dev_is_sid.9f
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191      ddi_intr_add_softint.9f
192      ddi_intr_alloc.9f
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195      ddi_intr_get_cap.9f
196      ddi_intr_get_hilevel_pri.9f
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201      ddi_intr_hilevel.9f
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203      ddi_intr_set_nreq.9f
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207      ddi_io_rep_put8.9f
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210      ddi_mem_get8.9f
211      ddi_mem_put8.9f
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213      ddi_mem_rep_put8.9f
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237      ddi_report_dev.9f
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462      scsi_hba_iport_register.9f
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464      scsi_hba_iportmap_create.9f
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521      usb_handle_remote_wakeup.9f
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530      usb_pipe_intr_xfer.9f       \
531      usb_pipe_isoc_xfer.9f       \
532      usb_pipe_reset.9f          \
533      usb_pipe_set_private.9f     \
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535      usb_register_hotplug_cbs.9f \
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538      usba_hdci_cb.9f             \
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541      usba_hdci_get_device_private.9f \
542      usba_hdci_register.9f        \
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568      STRUCT_SIZE.9f
569      assert.9f
570      atomic_add_16.9f
571      atomic_add_16_nv.9f
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573      atomic_add_32_nv.9f
574      atomic_add_64.9f
575      atomic_add_64_nv.9f
576      atomic_add_8.9f
577      atomic_add_8_nv.9f
578      atomic_add_char.9f
579      atomic_add_char_nv.9f
580      atomic_add_int.9f
581      atomic_add_int_nv.9f
582      atomic_add_long.9f
583      atomic_add_long_nv.9f
584      atomic_add_ptr.9f
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586      atomic_add_short.9f
587      atomic_add_short_nv.9f
588      atomic_and_16.9f
589      atomic_and_16_nv.9f

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590      atomic_and_32_nv.9f
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593      atomic_and_8.9f
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595      atomic_and_uchar.9f
596      atomic_and_uchar_nv.9f
597      atomic_and_uint.9f
598      atomic_and_uint_nv.9f
599      atomic_and_ulong.9f
600      atomic_and_ulong_nv.9f
601      atomic_and_ushort.9f
602      atomic_and_ushort_nv.9f
603      atomic_cas_16.9f
604      atomic_cas_32.9f
605      atomic_cas_64.9f
606      atomic_cas_8.9f
607      atomic_cas_ptr.9f
608      atomic_cas_uchar.9f
609      atomic_cas_uint.9f
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612      atomic_clear_long_excl.9f
613      atomic_dec_16.9f
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615      atomic_dec_32.9f
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617      atomic_dec_64.9f
618      atomic_dec_64_nv.9f
619      atomic_dec_8.9f
620      atomic_dec_8_nv.9f
621      atomic_dec_ptr.9f
622      atomic_dec_ptr_nv.9f
623      atomic_dec_uchar.9f
624      atomic_dec_uchar_nv.9f
625      atomic_dec_uint.9f
626      atomic_dec_uint_nv.9f
627      atomic_dec_ulong.9f
628      atomic_dec_ulong_nv.9f
629      atomic_dec_ushort.9f
630      atomic_dec_ushort_nv.9f
631      atomic_inc_16.9f
632      atomic_inc_16_nv.9f
633      atomic_inc_32.9f
634      atomic_inc_32_nv.9f
635      atomic_inc_64.9f
636      atomic_inc_64_nv.9f
637      atomic_inc_8.9f
638      atomic_inc_8_nv.9f
639      atomic_inc_ptr.9f
640      atomic_inc_ptr_nv.9f
641      atomic_inc_uchar.9f
642      atomic_inc_uchar_nv.9f
643      atomic_inc_uint.9f
644      atomic_inc_uint_nv.9f
645      atomic_inc_ulong.9f
646      atomic_inc_ulong_nv.9f
647      atomic_inc_ushort.9f
648      atomic_inc_ushort_nv.9f
649      atomic_or_16.9f
650      atomic_or_16_nv.9f
651      atomic_or_32.9f
652      atomic_or_32_nv.9f
653      atomic_or_64.9f
654      atomic_or_64_nv.9f
655      atomic_or_8.9f

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656      atomic_or_8_nv.9f
657      atomic_or_uchar.9f
658      atomic_or_uchar_nv.9f
659      atomic_or_uint.9f
660      atomic_or_uint_nv.9f
661      atomic_or_ulong.9f
662      atomic_or_ulong_nv.9f
663      atomic_or_ushort.9f
664      atomic_or_ushort_nv.9f
665      atomic_set_long_excl.9f
666      atomic_swap_16.9f
667      atomic_swap_32.9f
668      atomic_swap_64.9f
669      atomic_swap_8.9f
670      atomic_swap_ptr.9f
671      atomic_swap_uchar.9f
672      atomic_swap_uint.9f
673      atomic_swap_ulong.9f
674      atomic_swap_ushort.9f
675      avl_add.9f
676      avl_create.9f
677      avl_destroy.9f
678      avl_destroy_nodes.9f
679      avl_find.9f
680      avl_first.9f
681      avl_insert.9f
682      avl_insert_here.9f
683      avl_is_empty.9f
684      avl_last.9f
685      avl_nearest.9f
686      avl_numnodes.9f
687      avl_remove.9f
688      avl_swap.9f
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691      crgetgroups.9f
692      crgetngroups.9f
693      crgetrgid.9f
694      crgetruid.9f
695      crgetsgid.9f
696      crgetsuid.9f
697      crgetuid.9f
698      crgetzoneid.9f
699      csx_Get16.9f
700      csx_Get32.9f
701      csx_Get64.9f
702      csx_GetEventMask.9f
703      csx_GetNextClient.9f
704      csx_GetNextTuple.9f
705      csx_Parse_CISTPL_DEVICE_A.9f
706      csx_Parse_CISTPL_DEVICE_OA.9f
707      csx_Parse_CISTPL_DEVICE_OC.9f
708      csx_Parse_CISTPL_JEDEC_A.9f
709      csx_Parse_CISTPL_LONGLINK_C.9f
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711      csx_Put32.9f
712      csx_Put64.9f
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714      csx_ReleaseIRQ.9f
715      csx_ReleaseSocketMask.9f
716      csx_ReleaseWindow.9f
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723      csx_RepPut64.9f
724      cv_broadcast.9f
725      cv_destroy.9f
726      cv_init.9f
727      cv_reltimedwait.9f
728      cv_reltimedwait_sig.9f
729      cv_signal.9f
730      cv_timedwait.9f
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732      cv_wait.9f
733      cv_wait_sig.9f
734      ddi_btopr.9f
735      ddi_cb_unregister.9f
736      ddi_check_dma_handle.9f
737      ddi_devid_free.9f
738      ddi_devid_get.9f
739      ddi_devid_init.9f
740      ddi_devid_register.9f
741      ddi_devid_sizeof.9f
742      ddi_devid_str_decode.9f
743      ddi_devid_str_encode.9f
744      ddi_devid_str_free.9f
745      ddi_devid_unregister.9f
746      ddi_devid_valid.9f
747      ddi_devmap_segmap.9f
748      ddi_dmae_lstparty.9f
749      ddi_dmae_alloc.9f
750      ddi_dmae_disable.9f
751      ddi_dmae_enable.9f
752      ddi_dmae_getattr.9f
753      ddi_dmae_getcnt.9f
754      ddi_dmae_prog.9f
755      ddi_dmae_release.9f
756      ddi_dmae_stop.9f
757      ddi_exit_critical.9f
758      ddi_fls.9f
759      ddi_fm_capable.9f
760      ddi_fm_dma_err_clear.9f
761      ddi_fm_dma_err_get.9f
762      ddi_fm_fini.9f
763      ddi_fm_handler_unregister.9f
764      ddi_get16.9f
765      ddi_get32.9f
766      ddi_get64.9f
767      ddi_get_iblock_cookie.9f
768      ddi_get_lbolt64.9f
769      ddi_get_name.9f
770      ddi_get_soft_iblock_cookie.9f
771      ddi_get_soft_state.9f
772      ddi_getb.9f
773      ddi_getl.9f
774      ddi_getll.9f
775      ddi_getlongprop.9f
776      ddi_getlongprop_buf.9f
777      ddi_getprop.9f
778      ddi_getproplen.9f
779      ddi_gettw.9f
780      ddi_intr_block_disable.9f
781      ddi_intr_block_enable.9f
782      ddi_intr_clr_mask.9f
783      ddi_intr_disable.9f
784      ddi_intr_free.9f
785      ddi_intr_get_navail.9f
786      ddi_intr_get_softint_pri.9f
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788     ddi_intr_remove_softint.9f
789     ddi_intr_set_cap.9f
790     ddi_intr_set_pri.9f
791     ddi_intr_set_softint_pri.9f
792     ddi_intr_trigger_softint.9f
793     ddi_io_get16.9f
794     ddi_io_get32.9f
795     ddi_io_getb.9f
796     ddi_io_getl.9f
797     ddi_io_getw.9f
798     ddi_io_put16.9f
799     ddi_io_put32.9f
800     ddi_io_putb.9f
801     ddi_io_putl.9f
802     ddi_io_putw.9f
803     ddi_io_rep_get16.9f
804     ddi_io_rep_get32.9f
805     ddi_io_rep_getb.9f
806     ddi_io_rep_getl.9f
807     ddi_io_rep_getw.9f
808     ddi_io_rep_put16.9f
809     ddi_io_rep_put32.9f
810     ddi_io_rep_putb.9f
811     ddi_io_rep_putl.9f
812     ddi_io_rep_putw.9f
813     ddi_mem_get16.9f
814     ddi_mem_get32.9f
815     ddi_mem_get64.9f
816     ddi_mem_getb.9f
817     ddi_mem_getl.9f
818     ddi_mem_getll.9f
819     ddi_mem_getw.9f
820     ddi_mem_put16.9f
821     ddi_mem_put32.9f
822     ddi_mem_put64.9f
823     ddi_mem_putb.9f
824     ddi_mem_putl.9f
825     ddi_mem_putll.9f
826     ddi_mem_putw.9f
827     ddi_mem_rep_get16.9f
828     ddi_mem_rep_get32.9f
829     ddi_mem_rep_get64.9f
830     ddi_mem_rep_getb.9f
831     ddi_mem_rep_getl.9f
832     ddi_mem_rep_getll.9f
833     ddi_mem_rep_getw.9f
834     ddi_mem_rep_put16.9f
835     ddi_mem_rep_put32.9f
836     ddi_mem_rep_put64.9f
837     ddi_mem_rep_putb.9f
838     ddi_mem_rep_putl.9f
839     ddi_mem_rep_putll.9f
840     ddi_mem_rep_putw.9f
841     ddi_modclose.9f
842     ddi_modsym.9f
843     ddi_peek16.9f
844     ddi_peek32.9f
845     ddi_peek64.9f
846     ddi_peek8.9f
847     ddi_peekc.9f
848     ddi_peekd.9f
849     ddi_peekl.9f
850     ddi_peeks.9f
851     ddi_poke16.9f
852     ddi_poke32.9f
853     ddi_poke64.9f

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854     ddi_poke8.9f
855     ddi_pokec.9f
856     ddi_poked.9f
857     ddi_pokel.9f
858     ddi_pokes.9f
859     ddi_prop_free.9f
860     ddi_prop_get_int64.9f
861     ddi_prop_lookup_byte_array.9f
862     ddi_prop_lookup_int64_array.9f
863     ddi_prop_lookup_int_array.9f
864     ddi_prop_lookup_string.9f
865     ddi_prop_lookup_string_array.9f
866     ddi_prop_modify.9f
867     ddi_prop_remove.9f
868     ddi_prop_remove_all.9f
869     ddi_prop_undefine.9f
870     ddi_prop_update_byte_array.9f
871     ddi_prop_update_int.9f
872     ddi_prop_update_int64.9f
873     ddi_prop_update_int64_array.9f
874     ddi_prop_update_int_array.9f
875     ddi_prop_update_string.9f
876     ddi_prop_update_string_array.9f
877     ddi_ptob.9f
878     ddi_put16.9f
879     ddi_put32.9f
880     ddi_put64.9f
881     ddi_putb.9f
882     ddi_putl.9f
883     ddi_putll.9f
884     ddi_putw.9f
885     ddi_remove_intr.9f
886     ddi_remove_softintr.9f
887     ddi_rep_get16.9f
888     ddi_rep_get32.9f
889     ddi_rep_get64.9f
890     ddi_rep_getb.9f
891     ddi_rep_getl.9f
892     ddi_rep_getll.9f
893     ddi_rep_getw.9f
894     ddi_rep_put16.9f
895     ddi_rep_put32.9f
896     ddi_rep_put64.9f
897     ddi_rep_putb.9f
898     ddi_rep_putl.9f
899     ddi_rep_putll.9f
900     ddi_rep_putw.9f
901     ddi_segmap_setup.9f
902     ddi_set_driver_private.9f
903     ddi_soft_state_fini.9f
904     ddi_soft_state_free.9f
905     ddi_soft_state_init.9f
906     ddi_soft_state_zalloc.9f
907     ddi_strdup.9f
908     ddi_strtoul1.9f
909     ddi_taskq_create.9f
910     ddi_taskq_destroy.9f
911     ddi_taskq_dispatch.9f
912     ddi_taskq_resume.9f
913     ddi_taskq_suspend.9f
914     ddi_taskq_wait.9f
915     ddi_trigger_softintr.9f
916     ddi_umem_free.9f
917     ddi_umem_unlock.9f
918     ddi_unmap_regs.9f
919     desballoc.9f

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920      dev_err.9f
921      devmap_load.9f
922      devmap_umem_setup.9f
923      dlerrorack.9f
924      dlokack.9f
925      dlphysaddrack.9f
926      dluderrorind.9f
927      firmware_close.9f
928      firmware_free.9f
929      firmware_get_size.9f
930      firmware_malloc.9f
931      firmware_open.9f
932      firmware_read.9f
933      free_pktiopb.9f
934      gld_intr.9f
935      gld_mac_alloc.9f
936      gld_mac_free.9f
937      gld_recv.9f
938      gld_register.9f
939      gld_sched.9f
940      gld_unregister.9f
941      id32_free.9f
942      id32_lookup.9f
943      id_alloc.9f
944      id_alloc_nosleep.9f
945      id_alloc_specific_nosleep.9f
946      id_allocff.9f
947      id_allocff_nosleep.9f
948      id_free.9f
949      id_space_create.9f
950      id_space_destroy.9f
951      id_space_extend.9f
952      inl.9f
953      intro.9f
954      inw.9f
955      kmem_cache_alloc.9f
956      kmem_cache_destroy.9f
957      kmem_cache_free.9f
958      kmem_cache_set_move.9f
959      kmem_free.9f
960      kmem_zalloc.9f
961      kstat_named_setstr.9f
962      kstat_rung_back_to_waitq.9f
963      kstat_rung_enter.9f
964      kstat_rung_exit.9f
965      kstat_waitq_enter.9f
966      kstat_waitq_exit.9f
967      kstat_waitq_to_rung.9f
968      ldi_awrite.9f
969      ldi_close.9f
970      ldi_get_devid.9f
971      ldi_get_minor_name.9f
972      ldi_get_otyp.9f
973      ldi_getmsg.9f
974      ldi_ident_from_dip.9f
975      ldi_ident_from_stream.9f
976      ldi_ident_release.9f
977      ldi_open_by_devid.9f
978      ldi_open_by_name.9f
979      ldi_prop_get_int64.9f
980      ldi_prop_lookup_byte_array.9f
981      ldi_prop_lookup_int64_array.9f
982      ldi_prop_lookup_string.9f
983      ldi_prop_lookup_string_array.9f
984      ldi_write.9f
985      list_destroy.9f

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986      list_head.9f
987      list_insert_after.9f
988      list_insert_before.9f
989      list_insert_head.9f
990      list_insert_tail.9f
991      list_is_empty.9f
992      list_link_active.9f
993      list_link_init.9f
994      list_link_replace.9f
995      list_move_tail.9f
996      list_next.9f
997      list_prev.9f
998      list_remove.9f
999      list_remove_head.9f
1000     list_remove_tail.9f
1001     list_tail.9f
1002     mac_fini_ops.9f
1003     mac_free.9f
1004     mac_hcksum_set.9f
1005     mac_prop_info_set_default_link_flowctrl.9f
1006     mac_prop_info_set_default_str.9f
1007     mac_prop_info_set_default_uint32.9f
1008     mac_prop_info_set_default_uint64.9f
1009     mac_prop_info_set_default_uint8.9f
1010     mac_prop_info_set_perm.9f
1011     mac_prop_info_set_range_uint32.9f
1012     mac_transceiver_info_set_present.9f
1013     mac_transceiver_info_set_usable.9f
1014     mac_unregister.9f
1015     makecom_g0.9f
1016     makecom_g0_s.9f
1017     makecom_g1.9f
1018     makecom_g5.9f
1019     membar_consumer.9f
1020     membar_enter.9f
1021     membar_exit.9f
1022     membar_producer.9f
1023     memcmp.9f
1024     memcpy.9f
1025     memmove.9f
1026     memset.9f
1027     minphys.9f
1028     mod_info.9f
1029     mod_modname.9f
1030     mod_remove.9f
1031     mutex_destroy.9f
1032     mutex_enter.9f
1033     mutex_exit.9f
1034     mutex_init.9f
1035     mutex_owned.9f
1036     mutex_tryenter.9f
1037     net_event_notify_unregister.9f
1038     net_instance_notify_unregister.9f
1039     net_instance_protocol_unregister.9f
1040     numtos.9f
1041     nv_alloc_fini.9f
1042     nv_alloc_init.9f
1043     nvlist_add_boolean_array.9f
1044     nvlist_add_boolean_value.9f
1045     nvlist_add_byte.9f
1046     nvlist_add_byte_array.9f
1047     nvlist_add_int16.9f
1048     nvlist_add_int16_array.9f
1049     nvlist_add_int32.9f
1050     nvlist_add_int32_array.9f
1051     nvlist_add_int64.9f

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1052 nvlist_add_int64_array.9f
1053 nvlist_add_int8.9f
1054 nvlist_add_int8_array.9f
1055 nvlist_add_nvlist.9f
1056 nvlist_add_nvlist_array.9f
1057 nvlist_add_nvpair.9f
1058 nvlist_add_string.9f
1059 nvlist_add_string_array.9f
1060 nvlist_add_uint16.9f
1061 nvlist_add_uint16_array.9f
1062 nvlist_add_uint32.9f
1063 nvlist_add_uint32_array.9f
1064 nvlist_add_uint64.9f
1065 nvlist_add_uint64_array.9f
1066 nvlist_add_uint8.9f
1067 nvlist_add_uint8_array.9f
1068 nvlist_dup.9f
1069 nvlist_exists.9f
1070 nvlist_free.9f
1071 nvlist_lookup_boolean_array.9f
1072 nvlist_lookup_boolean_value.9f
1073 nvlist_lookup_byte.9f
1074 nvlist_lookup_byte_array.9f
1075 nvlist_lookup_int16.9f
1076 nvlist_lookup_int16_array.9f
1077 nvlist_lookup_int32.9f
1078 nvlist_lookup_int32_array.9f
1079 nvlist_lookup_int64.9f
1080 nvlist_lookup_int64_array.9f
1081 nvlist_lookup_int8.9f
1082 nvlist_lookup_int8_array.9f
1083 nvlist_lookup_nvlist.9f
1084 nvlist_lookup_nvlist_array.9f
1085 nvlist_lookup_pairs.9f
1086 nvlist_lookup_string.9f
1087 nvlist_lookup_string_array.9f
1088 nvlist_lookup_uint16.9f
1089 nvlist_lookup_uint16_array.9f
1090 nvlist_lookup_uint32.9f
1091 nvlist_lookup_uint32_array.9f
1092 nvlist_lookup_uint64.9f
1093 nvlist_lookup_uint64_array.9f
1094 nvlist_lookup_uint8.9f
1095 nvlist_lookup_uint8_array.9f
1096 nvlist_merge.9f
1097 nvlist_pack.9f
1098 nvlist_remove_all.9f
1099 nvlist_size.9f
1100 nvlist_t.9f
1101 nvlist_unpack.9f
1102 nvlist_xalloc.9f
1103 nvlist_xdup.9f
1104 nvlist_xpack.9f
1105 nvlist_xunpack.9f
1106 nvpair_name.9f
1107 nvpair_type.9f
1108 nvpair_value_boolean_array.9f
1109 nvpair_value_byte_array.9f
1110 nvpair_value_int16.9f
1111 nvpair_value_int16_array.9f
1112 nvpair_value_int32.9f
1113 nvpair_value_int32_array.9f
1114 nvpair_value_int64.9f
1115 nvpair_value_int64_array.9f
1116 nvpair_value_int8.9f
1117 nvpair_value_int8_array.9f

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1118 nvpair_value_nvlist.9f
1119 nvpair_value_nvlist_array.9f
1120 nvpair_value_string.9f
1121 nvpair_value_string_array.9f
1122 nvpair_value_uint16.9f
1123 nvpair_value_uint16_array.9f
1124 nvpair_value_uint32.9f
1125 nvpair_value_uint32_array.9f
1126 nvpair_value_uint64.9f
1127 nvpair_value_uint64_array.9f
1128 nvpair_value_uint8.9f
1129 nvpair_value_uint8_array.9f
1130 otherq.9f
1131 out1.9f
1132 outw.9f
1133 pci_config_get16.9f
1134 pci_config_get32.9f
1135 pci_config_get64.9f
1136 pci_config_getb.9f
1137 pci_config_getl.9f
1138 pci_config_getll.9f
1139 pci_config_getw.9f
1140 pci_config_put16.9f
1141 pci_config_put32.9f
1142 pci_config_put64.9f
1143 pci_config_put8.9f
1144 pci_config_pubt.9f
1145 pci_config_putl.9f
1146 pci_config_putll.9f
1147 pci_config_putw.9f
1148 pci_config_teardown.9f
1149 pci_ereport_post.9f
1150 pci_ereport_teardown.9f
1151 pci_restore_config_regs.9f
1152 pm_idle_component.9f
1153 pm_lower_power.9f
1154 priv_policy_choice.9f
1155 priv_policy_only.9f
1156 proc_ref.9f
1157 proc_unref.9f
1158 qprocsoff.9f
1159 qwait_sig.9f
1160 rd.9f
1161 repinsb.9f
1162 repinsd.9f
1163 repinsw.9f
1164 repoutsb.9f
1165 repoutsd.9f
1166 repoutsw.9f
1167 rmallocmap_wait.9f
1168 rmfreemap.9f
1169 rw_destroy.9f
1170 rw_downgrade.9f
1171 rw_enter.9f
1172 rw_exit.9f
1173 rw_init.9f
1174 rw_read_locked.9f
1175 rw_tryenter.9f
1176 rw_tryupgrade.9f
1177 samestr.9f
1178 sas_phymap_destroy.9f
1179 sas_phymap_lookup_uapriv.9f
1180 sas_phymap_phy_add.9f
1181 sas_phymap_phy_rem.9f
1182 sas_phymap_phy2ua.9f
1183 sas_phymap_phys_free.9f

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1184 sas\_phymap\_phys\_next.9f  
1185 sas\_phymap\_ue\_free.9f  
1186 sas\_phymap\_ue2phys.9f  
1187 sas\_phymap\_uahasphys.9f  
1188 scsi\_device\_unit\_address.9f  
1189 scsi\_device\_hba\_private\_get.9f  
1190 scsi\_device\_hba\_private\_set.9f  
1191 scsi\_dmafree.9f  
1192 scsi\_dnname.9f  
1193 scsi\_hba\_detach.9f  
1194 scsi\_hba\_fini.9f  
1195 scsi\_hba\_iport\_find.9f  
1196 scsi\_hba\_iportmap\_destroy.9f  
1197 scsi\_hba\_iportmap\_iport\_add.9f  
1198 scsi\_hba\_iportmap\_iport\_remove.9f  
1199 scsi\_hba\_pkt\_free.9f  
1200 **scsi\_hba\_tgtmap\_destroy.9f**  
1201 scsi\_hba\_tgtmap\_set\_begin.9f  
1202 scsi\_hba\_tgtmap\_set\_add.9f  
1203 scsi\_hba\_tgtmap\_set\_end.9f  
1204 scsi\_hba\_tgtmap\_set\_flush.9f  
1205 scsi\_hba\_tgtmap\_tgt\_add.9f  
1206 scsi\_hba\_tgtmap\_tgt\_remove.9f  
1207 scsi\_hba\_tran\_free.9f  
1208 scsi\_ifsetcap.9f  
1209 scsi\_mname.9f  
1210 scsi\_pktfree.9f  
1211 scsi\_resalloc.9f  
1212 scsi\_resfree.9f  
1213 scsi\_rname.9f  
1214 scsi\_sense\_asc.9f  
1215 scsi\_sense\_ascq.9f  
1216 scsi\_sense\_cmdspecific\_uint64.9f  
1217 scsi\_sense\_info\_uint64.9f  
1218 scsi\_sname.9f  
1219 scsi\_unslave.9f  
1220 scsi\_wwn\_to\_wwnstr.9f  
1221 scsi\_free\_wwnstr.9f  
1222 sema\_destroy.9f  
1223 sema\_init.9f  
1224 sema\_p.9f  
1225 sema\_p\_sig.9f  
1226 sema\_trypp.9f  
1227 sema\_v.9f  
1228 snprintf.9f  
1229 strcasecmp.9f  
1230 strcat.9f  
1231 strchr.9f  
1232 strcmp.9f  
1233 strcpy.9f  
1234 strdup.9f  
1235 strfree.9f  
1236 strlcat.9f  
1237 strlcpy.9f  
1238 strlen.9f  
1239 strncasecmp.9f  
1240 strncat.9f  
1241 strncmp.9f  
1242 strncpy.9f  
1243 strnlen.9f  
1244 strrchr.9f  
1245 strspn.9f  
1246 taskq\_suspended.9f  
1247 uconv\_u16tout8.9f  
1248 uconv\_u32tout16.9f  
1249 uconv\_u32tout8.9f

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1250 uconv_u8tou16.9f
1251 uconv_u8tou32.9f
1252 unfreezestr.9f
1253 usb_alloc_bulk_req.9f
1254 usb_alloc_ctrl_req.9f
1255 usb_alloc_intr_req.9f
1256 usb_alloc_isoc_req.9f
1257 usb_client_detach.9f
1258 usb_free_bulk_req.9f
1259 usb_free_ctrl_req.9f
1260 usb_free_descr_tree.9f
1261 usb_free_dev_data.9f
1262 usb_free_intr_req.9f
1263 usb_free_isoc_req.9f
1264 usb_get_if_number.9f
1265 usb_owns_device.9f
1266 usb_pipe_ctrl_xfer_wait.9f
1267 usb_pipe_get_private.9f
1268 usb_pipe_open.9f
1269 usb_pipe_stop_intr_polling.9f
1270 usb_pipe_stop_isoc_polling.9f
1271 usb_print_descr_tree.9f
1272 usb_set_alt_if.9f
1273 usb_set_cfg.9f
1274 usb_unregister_hotplug_cbs.9f
1275 usba_free_hcdi_ops.9f
1276 usba_hcdi_unregister.9f
1277 usba_hubdi_close.9f
1278 usba_hubdi_ioctl.9f
1279 usba_hubdi_open.9f
1280 usba_hubdi_root_hub_power.9f
1281 usba_hubdi_unbind_root_hub.9f
1282 va_copy.9f
1283 va_end.9f
1284 va_start.9f
1285 vcmn_err.9f
1286 vmem_destroy.9f
1287 vmem_free.9f
1288 vmem_size.9f
1289 vmem_xalloc.9f
1290 vmem_xcreate.9f
1291 vmem_xfree.9f
1292 vsnprintf.9f
1293 vsprintf.9f
1294 vzcmn_err.9f
1295 wr.9f
1296 zcmn_err.9f

1298 assert.9f          := LINKSRC = ASSERT.9f
1300 intro.9f           := LINKSRC = Intro.9f
1302 otherq.9f          := LINKSRC = OTHERQ.9f
1304 rd.9f              := LINKSRC = RD.9f
1306 samestr.9f         := LINKSRC = SAMESTR.9f

1308 SIZEOF_PTR.9f      := LINKSRC = STRUCT_DECL.9f
1309 SIZEOF_STRUCT.9f    := LINKSRC = STRUCT_DECL.9f
1310 STRUCT_BUF.9f       := LINKSRC = STRUCT_DECL.9f
1311 STRUCT_FADDR.9f     := LINKSRC = STRUCT_DECL.9f
1312 STRUCT_FGET.9f      := LINKSRC = STRUCT_DECL.9f
1313 STRUCT_FGETP.9f      := LINKSRC = STRUCT_DECL.9f
1314 STRUCT_FSET.9f      := LINKSRC = STRUCT_DECL.9f
1315 STRUCT_FSETP.9f      := LINKSRC = STRUCT_DECL.9f

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1316 STRUCT_HANDLE.9f      ::= LINKSRC = STRUCT_DECL.9f
1317 STRUCT_INIT.9f        ::= LINKSRC = STRUCT_DECL.9f
1318 STRUCT_SET_HANDLE.9f  ::= LINKSRC = STRUCT_DECL.9f
1319 STRUCT_SIZE.9f        ::= LINKSRC = STRUCT_DECL.9f

1321 wr.9f                ::= LINKSRC = WR.9f

1323 atomic_add_16.9f      ::= LINKSRC = atomic_add.9f
1324 atomic_add_16_nv.9f    ::= LINKSRC = atomic_add.9f
1325 atomic_add_32.9f      ::= LINKSRC = atomic_add.9f
1326 atomic_add_32_nv.9f   ::= LINKSRC = atomic_add.9f
1327 atomic_add_64.9f      ::= LINKSRC = atomic_add.9f
1328 atomic_add_64_nv.9f   ::= LINKSRC = atomic_add.9f
1329 atomic_add_8.9f        ::= LINKSRC = atomic_add.9f
1330 atomic_add_8_nv.9f    ::= LINKSRC = atomic_add.9f
1331 atomic_add_char.9f    ::= LINKSRC = atomic_add.9f
1332 atomic_add_char_nv.9f ::= LINKSRC = atomic_add.9f
1333 atomic_add_int.9f     ::= LINKSRC = atomic_add.9f
1334 atomic_add_int_nv.9f  ::= LINKSRC = atomic_add.9f
1335 atomic_add_long.9f    ::= LINKSRC = atomic_add.9f
1336 atomic_add_long_nv.9f ::= LINKSRC = atomic_add.9f
1337 atomic_add_ptr.9f     ::= LINKSRC = atomic_add.9f
1338 atomic_add_ptr_nv.9f  ::= LINKSRC = atomic_add.9f
1339 atomic_add_short.9f   ::= LINKSRC = atomic_add.9f
1340 atomic_add_short_nv.9f::= LINKSRC = atomic_add.9f
1341 atomic_and_16.9f       ::= LINKSRC = atomic_and.9f
1342 atomic_and_16_nv.9f   ::= LINKSRC = atomic_and.9f
1343 atomic_and_32.9f       ::= LINKSRC = atomic_and.9f
1344 atomic_and_32_nv.9f   ::= LINKSRC = atomic_and.9f
1345 atomic_and_64.9f       ::= LINKSRC = atomic_and.9f
1346 atomic_and_64_nv.9f   ::= LINKSRC = atomic_and.9f
1347 atomic_and_8.9f        ::= LINKSRC = atomic_and.9f
1348 atomic_and_8_nv.9f    ::= LINKSRC = atomic_and.9f
1349 atomic_and_uchar.9f   ::= LINKSRC = atomic_and.9f
1350 atomic_and_uchar_nv.9f ::= LINKSRC = atomic_and.9f
1351 atomic_and_uint.9f    ::= LINKSRC = atomic_and.9f
1352 atomic_and_uint_nv.9f ::= LINKSRC = atomic_and.9f
1353 atomic_and_ulong.9f   ::= LINKSRC = atomic_and.9f
1354 atomic_and_ulong_nv.9f ::= LINKSRC = atomic_and.9f
1355 atomic_and_ushort.9f  ::= LINKSRC = atomic_and.9f
1356 atomic_and_ushort_nv.9f::= LINKSRC = atomic_and.9f

1358 atomic_clear_long_excl.9f ::= LINKSRC = atomic_bits.9f
1359 atomic_set_long_excl.9f  ::= LINKSRC = atomic_bits.9f

1361 atomic_cas_16.9f       ::= LINKSRC = atomic_cas.9f
1362 atomic_cas_32.9f       ::= LINKSRC = atomic_cas.9f
1363 atomic_cas_64.9f       ::= LINKSRC = atomic_cas.9f
1364 atomic_cas_8.9f        ::= LINKSRC = atomic_cas.9f
1365 atomic_cas_ptr.9f      ::= LINKSRC = atomic_cas.9f
1366 atomic_cas_uchar.9f   ::= LINKSRC = atomic_cas.9f
1367 atomic_cas_uint.9f    ::= LINKSRC = atomic_cas.9f
1368 atomic_cas_ulong.9f   ::= LINKSRC = atomic_cas.9f
1369 atomic_cas_ushort.9f  ::= LINKSRC = atomic_cas.9f

1371 atomic_dec_16.9f       ::= LINKSRC = atomic_dec.9f
1372 atomic_dec_16_nv.9f    ::= LINKSRC = atomic_dec.9f
1373 atomic_dec_32.9f       ::= LINKSRC = atomic_dec.9f
1374 atomic_dec_32_nv.9f   ::= LINKSRC = atomic_dec.9f
1375 atomic_dec_64.9f       ::= LINKSRC = atomic_dec.9f
1376 atomic_dec_64_nv.9f   ::= LINKSRC = atomic_dec.9f
1377 atomic_dec_8.9f        ::= LINKSRC = atomic_dec.9f
1378 atomic_dec_8_nv.9f    ::= LINKSRC = atomic_dec.9f
1379 atomic_dec_ptr.9f      ::= LINKSRC = atomic_dec.9f
1380 atomic_dec_ptr_nv.9f  ::= LINKSRC = atomic_dec.9f
1381 atomic_dec_uchar.9f   ::= LINKSRC = atomic_dec.9f

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1382 atomic_dec_uchar_nv.9f  ::= LINKSRC = atomic_dec.9f
1383 atomic_dec_uint.9f     ::= LINKSRC = atomic_dec.9f
1384 atomic_dec_uint_nv.9f  ::= LINKSRC = atomic_dec.9f
1385 atomic_dec_ulong.9f   ::= LINKSRC = atomic_dec.9f
1386 atomic_dec_ulong_nv.9f ::= LINKSRC = atomic_dec.9f
1387 atomic_dec_ushort.9f   ::= LINKSRC = atomic_dec.9f
1388 atomic_dec_ushort_nv.9f::= LINKSRC = atomic_dec.9f

1390 atomic_inc_16.9f        ::= LINKSRC = atomic_inc.9f
1391 atomic_inc_16_nv.9f    ::= LINKSRC = atomic_inc.9f
1392 atomic_inc_32.9f        ::= LINKSRC = atomic_inc.9f
1393 atomic_inc_32_nv.9f   ::= LINKSRC = atomic_inc.9f
1394 atomic_inc_64.9f        ::= LINKSRC = atomic_inc.9f
1395 atomic_inc_64_nv.9f   ::= LINKSRC = atomic_inc.9f
1396 atomic_inc_8.9f         ::= LINKSRC = atomic_inc.9f
1397 atomic_inc_8_nv.9f    ::= LINKSRC = atomic_inc.9f
1398 atomic_inc_ptr.9f      ::= LINKSRC = atomic_inc.9f
1399 atomic_inc_ptr_nv.9f  ::= LINKSRC = atomic_inc.9f
1400 atomic_inc_uchar.9f   ::= LINKSRC = atomic_inc.9f
1401 atomic_inc_uchar_nv.9f ::= LINKSRC = atomic_inc.9f
1402 atomic_inc_uint.9f    ::= LINKSRC = atomic_inc.9f
1403 atomic_inc_uint_nv.9f  ::= LINKSRC = atomic_inc.9f
1404 atomic_inc_ulong.9f   ::= LINKSRC = atomic_inc.9f
1405 atomic_inc_ulong_nv.9f ::= LINKSRC = atomic_inc.9f
1406 atomic_inc_ushort.9f  ::= LINKSRC = atomic_inc.9f
1407 atomic_inc_ushort_nv.9f ::= LINKSRC = atomic_inc.9f

1409 atomic_or_16.9f        ::= LINKSRC = atomic_or.9f
1410 atomic_or_16_nv.9f   ::= LINKSRC = atomic_or.9f
1411 atomic_or_32.9f        ::= LINKSRC = atomic_or.9f
1412 atomic_or_32_nv.9f   ::= LINKSRC = atomic_or.9f
1413 atomic_or_64.9f        ::= LINKSRC = atomic_or.9f
1414 atomic_or_64_nv.9f   ::= LINKSRC = atomic_or.9f
1415 atomic_or_8.9f         ::= LINKSRC = atomic_or.9f
1416 atomic_or_8_nv.9f    ::= LINKSRC = atomic_or.9f
1417 atomic_or_uchar.9f   ::= LINKSRC = atomic_or.9f
1418 atomic_or_uchar_nv.9f ::= LINKSRC = atomic_or.9f
1419 atomic_or_uint.9f    ::= LINKSRC = atomic_or.9f
1420 atomic_or_uint_nv.9f  ::= LINKSRC = atomic_or.9f
1421 atomic_or_ulong.9f   ::= LINKSRC = atomic_or.9f
1422 atomic_or_ulong_nv.9f ::= LINKSRC = atomic_or.9f
1423 atomic_or_ushort.9f  ::= LINKSRC = atomic_or.9f
1424 atomic_or_ushort_nv.9f ::= LINKSRC = atomic_or.9f

1426 atomic_swap_16.9f      ::= LINKSRC = atomic_swap.9f
1427 atomic_swap_32.9f      ::= LINKSRC = atomic_swap.9f
1428 atomic_swap_64.9f      ::= LINKSRC = atomic_swap.9f
1429 atomic_swap_8.9f       ::= LINKSRC = atomic_swap.9f
1430 atomic_swap_ptr.9f    ::= LINKSRC = atomic_swap.9f
1431 atomic_swap_uchar.9f  ::= LINKSRC = atomic_swap.9f
1432 atomic_swap_uint.9f   ::= LINKSRC = atomic_swap.9f
1433 atomic_swap_ulong.9f  ::= LINKSRC = atomic_swap.9f
1434 atomic_swap_ushort.9f ::= LINKSRC = atomic_swap.9f

1436 avl_add.9f             ::= LINKSRC = avl.9f
1437 avl_create.9f          ::= LINKSRC = avl.9f
1438 avl_destroy.9f         ::= LINKSRC = avl.9f
1439 avl_destroy_nodes.9f  ::= LINKSRC = avl.9f
1440 avl_find.9f            ::= LINKSRC = avl.9f
1441 avl_first.9f           ::= LINKSRC = avl.9f
1442 avl_insert.9f          ::= LINKSRC = avl.9f
1443 avl_insert_here.9f    ::= LINKSRC = avl.9f
1444 avl_is_empty.9f        ::= LINKSRC = avl.9f
1445 avl_last.9f            ::= LINKSRC = avl.9f
1446 avl_nearest.9f         ::= LINKSRC = avl.9f
1447 avl_numnodes.9f        ::= LINKSRC = avl.9f

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1448 avl_remove.9f          := LINKSRC = avl.9f
1449 avl_swap.9f            := LINKSRC = avl.9f
1450 AVL_NEXT.9f           := LINKSRC = avl.9f
1451 AVL_PREV.9f           := LINKSRC = avl.9f

1453 dev_err.9f             := LINKSRC = cmn_err.9f
1454 vcmn_err.9f            := LINKSRC = cmn_err.9f
1455 vzcmn_err.9f           := LINKSRC = cmn_err.9f
1456 zcmn_err.9f            := LINKSRC = cmn_err.9f

1458 cv_broadcast.9f        := LINKSRC = condvar.9f
1459 cv_destroy.9f          := LINKSRC = condvar.9f
1460 cv_init.9f              := LINKSRC = condvar.9f
1461 cv_reltimedwait.9f      := LINKSRC = condvar.9f
1462 cv_reltimedwait_sig.9f  := LINKSRC = condvar.9f
1463 cv_signal.9f            := LINKSRC = condvar.9f
1464 cv_timedwait.9f         := LINKSRC = condvar.9f
1465 cv_timedwait_sig.9f     := LINKSRC = condvar.9f
1466 cv_wait.9f               := LINKSRC = condvar.9f
1467 cv_wait_sig.9f           := LINKSRC = condvar.9f

1469 csx_Get16.9f            := LINKSRC = csx_Get8.9f
1470 csx_Get32.9f              := LINKSRC = csx_Get8.9f
1471 csx_Get64.9f              := LINKSRC = csx_Get8.9f

1473 csx_GetNextClient.9f    := LINKSRC = csx_GetFirstClient.9f
1475 csx_GetNextTuple.9f      := LINKSRC = csx_GetFirstTuple.9f
1477 csx_RemoveDeviceNode.9f   := LINKSRC = csx_MakeDeviceNode.9f

1479 csx_Parse_CISTPL_DEVICE_A.9f := LINKSRC = csx_Parse_CISTPL_DEVICE.9f
1480 csx_Parse_CISTPL_DEVICE_OA.9f := LINKSRC = csx_Parse_CISTPL_DEVICE.9f
1481 csx_Parse_CISTPL_DEVICE_OC.9f := LINKSRC = csx_Parse_CISTPL_DEVICE.9f

1483 csx_Parse_CISTPL_JEDEC_A.9f := LINKSRC = csx_Parse_CISTPL_JEDEC_C.9f
1485 csx_Parse_CISTPL_LONGLINK_C.9f := LINKSRC = csx_Parse_CISTPL_LONGLINK_A

1487 csx_Put16.9f              := LINKSRC = csx_Put8.9f
1488 csx_Put32.9f              := LINKSRC = csx_Put8.9f
1489 csx_Put64.9f              := LINKSRC = csx_Put8.9f

1491 csx_RepGet16.9f            := LINKSRC = csx_RepGet8.9f
1492 csx_RepGet32.9f             := LINKSRC = csx_RepGet8.9f
1493 csx_RepGet64.9f             := LINKSRC = csx_RepGet8.9f

1495 csx_RepPut16.9f             := LINKSRC = csx_RepPut8.9f
1496 csx_RepPut32.9f              := LINKSRC = csx_RepPut8.9f
1497 csx_RepPut64.9f              := LINKSRC = csx_RepPut8.9f

1499 csx_ReleaseIO.9f            := LINKSRC = csx_RequestIO.9f
1501 csx_ReleaseIRQ.9f           := LINKSRC = csx_RequestIRQ.9f
1503 csx_ReleaseSocketMask.9f    := LINKSRC = csx_RequestSocketMask.9f

1505 csx_ReleaseWindow.9f        := LINKSRC = csx_RequestWindow.9f
1507 csx_GetEventMask.9f         := LINKSRC = csx_SetEventMask.9f
1509 ddi_get_iblock_cookie.9f    := LINKSRC = ddi_add_intr.9f
1510 ddi_remove_intr.9f           := LINKSRC = ddi_add_intr.9f

1512 ddi_get_soft_iblock_cookie.9f := LINKSRC = ddi_add_softintr.9f
1513 ddi_remove_softintr.9f       := LINKSRC = ddi_add_softintr.9f

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1514 ddi_trigger_softintr.9f    := LINKSRC = ddi_add_softintr.9f
1516 ddi_get_name.9f             := LINKSRC = ddi_binding_name.9f
1518 ddi_btopr.9f                := LINKSRC = ddi_btop.9f
1519 ddi_ptob.9f                 := LINKSRC = ddi_btop.9f
1521 ddi_cb_unregister.9f         := LINKSRC = ddi_cb_register.9f
1523 ddi_check_dma_handle.9f     := LINKSRC = ddi_check_acc_handle.9f
1525 bcanputnext.9f              := LINKSRC = canputnext.9f
1527 crgetgid.9f                 := LINKSRC = ddi_cred.9f
1528 crgetgroups.9f              := LINKSRC = ddi_cred.9f
1529 crgetngroups.9f             := LINKSRC = ddi_cred.9f
1530 crgetrgid.9f                 := LINKSRC = ddi_cred.9f
1531 crgetruid.9f                 := LINKSRC = ddi_cred.9f
1532 crgetsgid.9f                 := LINKSRC = ddi_cred.9f
1533 crgetsuid.9f                 := LINKSRC = ddi_cred.9f
1534 crgetuid.9f                  := LINKSRC = ddi_cred.9f
1535 crgetzoneid.9f               := LINKSRC = ddi_cred.9f

1537 ddi_devid_free.9f            := LINKSRC = ddi_devid_compare.9f
1538 ddi_devid_get.9f              := LINKSRC = ddi_devid_compare.9f
1539 ddi_devid_init.9f             := LINKSRC = ddi_devid_compare.9f
1540 ddi_devid_register.9f         := LINKSRC = ddi_devid_compare.9f
1541 ddi_devid_sizeof.9f           := LINKSRC = ddi_devid_compare.9f
1542 ddi_devid_str_decode.9f        := LINKSRC = ddi_devid_compare.9f
1543 ddi_devid_str_encode.9f        := LINKSRC = ddi_devid_compare.9f
1544 ddi_devid_str_free.9f          := LINKSRC = ddi_devid_compare.9f
1545 ddi_devid_unregister.9f         := LINKSRC = ddi_devid_compare.9f
1546 ddi_devid_valid.9f             := LINKSRC = ddi_devid_compare.9f

1548 ddi_dmae_1stparty.9f          := LINKSRC = ddi_dmae.9f
1549 ddi_dmae_alloc.9f              := LINKSRC = ddi_dmae.9f
1550 ddi_dmae_disable.9f             := LINKSRC = ddi_dmae.9f
1551 ddi_dmae_enable.9f              := LINKSRC = ddi_dmae.9f
1552 ddi_dmae_getattr.9f             := LINKSRC = ddi_dmae.9f
1553 ddi_dmae_getcnt.9f              := LINKSRC = ddi_dmae.9f
1554 ddi_dmae_prog.9f                 := LINKSRC = ddi_dmae.9f
1555 ddi_dmae_release.9f             := LINKSRC = ddi_dmae.9f
1556 ddi_dmae_stop.9f                 := LINKSRC = ddi_dmae.9f

1558 ddi_exit_critical.9f           := LINKSRC = ddi_enter_critical.9f
1560 ddi_fls.9f                     := LINKSRC = ddi_ffs.9f
1562 ddi_fm_dma_err_clear.9f        := LINKSRC = ddi_fm_acc_err_clear.9f
1564 ddi_fm_dma_err_get.9f          := LINKSRC = ddi_fm_acc_err_get.9f
1566 ddi_fm_handler_unregister.9f    := LINKSRC = ddi_fm_handler_register.9f
1568 ddi_fm_capable.9f               := LINKSRC = ddi_fm_init.9f
1569 ddi_fm_fini.9f                  := LINKSRC = ddi_fm_init.9f

1571 ddi_get16.9f                   := LINKSRC = ddi_get8.9f
1572 ddi_get32.9f                   := LINKSRC = ddi_get8.9f
1573 ddi_get64.9f                   := LINKSRC = ddi_get8.9f
1574 ddi_getb.9f                     := LINKSRC = ddi_get8.9f
1575 ddi_getl.9f                     := LINKSRC = ddi_get8.9f
1576 ddi_getll.9f                    := LINKSRC = ddi_get8.9f
1577 ddi_getw.9f                     := LINKSRC = ddi_get8.9f

1579 ddi_set_driver_private.9f       := LINKSRC = ddi_get_driver_private.9f

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1581 ddi_get_lbolt64.9f          := LINKSRC = ddi_get_lbolt.9f
1583 ddi_intr_remove_handler.9f   := LINKSRC = ddi_intr_add_handler.9f
1585 ddi_intr_get_softint_pri.9f  := LINKSRC = ddi_intr_add_softint.9f
1586 ddi_intr_remove_softint.9f   := LINKSRC = ddi_intr_add_softint.9f
1587 ddi_intr_set_softint_pri.9f  := LINKSRC = ddi_intr_add_softint.9f
1588 ddi_intr_trigger_softint.9f  := LINKSRC = ddi_intr_add_softint.9f

1590 ddi_intr_free.9f            := LINKSRC = ddi_intr_alloc.9f
1592 ddi_intr_block_disable.9f    := LINKSRC = ddi_intr_enable.9f
1593 ddi_intr_block_enable.9f    := LINKSRC = ddi_intr_enable.9f
1594 ddi_intr_disable.9f         := LINKSRC = ddi_intr_enable.9f

1596 ddi_intr_set_cap.9f         := LINKSRC = ddi_intr_get_cap.9f
1598 ddi_intr_get_navail.9f      := LINKSRC = ddi_intr_get_nintrs.9f
1600 ddi_intr_set_pri.9f         := LINKSRC = ddi_intr_get_pri.9f
1602 ddi_intr_clr_mask.9f        := LINKSRC = ddi_intr_set_mask.9f

1604 ddi_io_get16.9f             := LINKSRC = ddi_io_get8.9f
1605 ddi_io_get32.9f             := LINKSRC = ddi_io_get8.9f
1606 ddi_io_getb.9f              := LINKSRC = ddi_io_get8.9f
1607 ddi_io_getl.9f              := LINKSRC = ddi_io_get8.9f
1608 ddi_io_getw.9f              := LINKSRC = ddi_io_get8.9f

1610 ddi_io_put16.9f             := LINKSRC = ddi_io_put8.9f
1611 ddi_io_put32.9f             := LINKSRC = ddi_io_put8.9f
1612 ddi_io_putb.9f              := LINKSRC = ddi_io_put8.9f
1613 ddi_io_putl.9f              := LINKSRC = ddi_io_put8.9f
1614 ddi_io_putw.9f              := LINKSRC = ddi_io_put8.9f

1616 ddi_io_rep_get16.9f          := LINKSRC = ddi_io_rep_get8.9f
1617 ddi_io_rep_get32.9f          := LINKSRC = ddi_io_rep_get8.9f
1618 ddi_io_rep_getb.9f           := LINKSRC = ddi_io_rep_get8.9f
1619 ddi_io_rep_getl.9f           := LINKSRC = ddi_io_rep_get8.9f
1620 ddi_io_rep_getw.9f           := LINKSRC = ddi_io_rep_get8.9f

1622 ddi_io_rep_put16.9f          := LINKSRC = ddi_io_rep_put8.9f
1623 ddi_io_rep_put32.9f          := LINKSRC = ddi_io_rep_put8.9f
1624 ddi_io_rep_putb.9f           := LINKSRC = ddi_io_rep_put8.9f
1625 ddi_io_rep_putl.9f           := LINKSRC = ddi_io_rep_put8.9f
1626 ddi_io_rep_putw.9f           := LINKSRC = ddi_io_rep_put8.9f

1628 ddi_unmap_regs.9f           := LINKSRC = ddi_map_regs.9f

1630 ddi_mem_get16.9f             := LINKSRC = ddi_mem_get8.9f
1631 ddi_mem_get32.9f             := LINKSRC = ddi_mem_get8.9f
1632 ddi_mem_get64.9f             := LINKSRC = ddi_mem_get8.9f
1633 ddi_mem_getb.9f              := LINKSRC = ddi_mem_get8.9f
1634 ddi_mem_getl.9f              := LINKSRC = ddi_mem_get8.9f
1635 ddi_mem_getll.9f             := LINKSRC = ddi_mem_get8.9f
1636 ddi_mem_getw.9f              := LINKSRC = ddi_mem_get8.9f

1638 ddi_mem_put16.9f             := LINKSRC = ddi_mem_put8.9f
1639 ddi_mem_put32.9f             := LINKSRC = ddi_mem_put8.9f
1640 ddi_mem_put64.9f             := LINKSRC = ddi_mem_put8.9f
1641 ddi_mem_putb.9f              := LINKSRC = ddi_mem_put8.9f
1642 ddi_mem_putl.9f              := LINKSRC = ddi_mem_put8.9f
1643 ddi_mem_putll.9f             := LINKSRC = ddi_mem_put8.9f
1644 ddi_mem_putw.9f              := LINKSRC = ddi_mem_put8.9f

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1646 ddi_mem_rep_get16.9f      := LINKSRC = ddi_mem_rep_get8.9f
1647 ddi_mem_rep_get32.9f      := LINKSRC = ddi_mem_rep_get8.9f
1648 ddi_mem_rep_get64.9f      := LINKSRC = ddi_mem_rep_get8.9f
1649 ddi_mem_rep_getb.9f       := LINKSRC = ddi_mem_rep_get8.9f
1650 ddi_mem_rep_getl.9f       := LINKSRC = ddi_mem_rep_get8.9f
1651 ddi_mem_rep_getll.9f      := LINKSRC = ddi_mem_rep_get8.9f
1652 ddi_mem_rep_getw.9f       := LINKSRC = ddi_mem_rep_get8.9f

1654 ddi_mem_rep_put16.9f      := LINKSRC = ddi_mem_rep_put8.9f
1655 ddi_mem_rep_put32.9f      := LINKSRC = ddi_mem_rep_put8.9f
1656 ddi_mem_rep_put64.9f      := LINKSRC = ddi_mem_rep_put8.9f
1657 ddi_mem_rep_putb.9f       := LINKSRC = ddi_mem_rep_put8.9f
1658 ddi_mem_rep_putl.9f       := LINKSRC = ddi_mem_rep_put8.9f
1659 ddi_mem_rep_putll.9f      := LINKSRC = ddi_mem_rep_put8.9f
1660 ddi_mem_rep_putw.9f       := LINKSRC = ddi_mem_rep_put8.9f

1662 ddi_modclose.9f          := LINKSRC = ddi_modopen.9f
1663 ddi_modsym.9f            := LINKSRC = ddi_modopen.9f

1665 ddi_peek16.9f             := LINKSRC = ddi_peek.9f
1666 ddi_peek32.9f             := LINKSRC = ddi_peek.9f
1667 ddi_peek64.9f             := LINKSRC = ddi_peek.9f
1668 ddi_peek8.9f              := LINKSRC = ddi_peek.9f
1669 ddi_peekc.9f              := LINKSRC = ddi_peek.9f
1670 ddi_peekd.9f              := LINKSRC = ddi_peek.9f
1671 ddi_peekl.9f              := LINKSRC = ddi_peek.9f
1672 ddi_peeks.9f              := LINKSRC = ddi_peek.9f

1674 ddi_poke16.9f             := LINKSRC = ddi_poke.9f
1675 ddi_poke32.9f             := LINKSRC = ddi_poke.9f
1676 ddi_poke64.9f             := LINKSRC = ddi_poke.9f
1677 ddi_poke8.9f              := LINKSRC = ddi_poke.9f
1678 ddi_pokec.9f              := LINKSRC = ddi_poke.9f
1679 ddi_poked.9f              := LINKSRC = ddi_poke.9f
1680 ddi_pokel.9f              := LINKSRC = ddi_poke.9f
1681 ddi_pkokes.9f             := LINKSRC = ddi_poke.9f

1683 ddi_prop_modify.9f        := LINKSRC = ddi_prop_create.9f
1684 ddi_prop_remove.9f         := LINKSRC = ddi_prop_create.9f
1685 ddi_prop_remove_all.9f     := LINKSRC = ddi_prop_create.9f
1686 ddi_prop_undefine.9f       := LINKSRC = ddi_prop_create.9f

1688 ddi_prop_get_int64.9f     := LINKSRC = ddi_prop_get_int.9f

1690 ddi_prop_free.9f           := LINKSRC = ddi_prop_lookup.9f
1691 ddi_prop_lookup_byte_array.9f := LINKSRC = ddi_prop_lookup.9f
1692 ddi_prop_lookup_int64_array.9f := LINKSRC = ddi_prop_lookup.9f
1693 ddi_prop_lookup_int_array.9f := LINKSRC = ddi_prop_lookup.9f
1694 ddi_prop_lookup_string.9f   := LINKSRC = ddi_prop_lookup.9f
1695 ddi_prop_lookup_string_array.9f := LINKSRC = ddi_prop_lookup.9f

1697 ddi_getlongprop.9f         := LINKSRC = ddi_prop_op.9f
1698 ddi_getlongprop_buf.9f      := LINKSRC = ddi_prop_op.9f
1699 ddi_getprop.9f              := LINKSRC = ddi_prop_op.9f
1700 ddi_getproplen.9f          := LINKSRC = ddi_prop_op.9f

1702 ddi_prop_update_byte_array.9f := LINKSRC = ddi_prop_update.9f
1703 ddi_prop_update_int.9f       := LINKSRC = ddi_prop_update.9f
1704 ddi_prop_update_int64.9f     := LINKSRC = ddi_prop_update.9f
1705 ddi_prop_update_int64_array.9f := LINKSRC = ddi_prop_update.9f
1706 ddi_prop_update_int_array.9f := LINKSRC = ddi_prop_update.9f
1707 ddi_prop_update_string.9f   := LINKSRC = ddi_prop_update.9f
1708 ddi_prop_update_string_array.9f := LINKSRC = ddi_prop_update.9f

1710 ddi_put16.9f               := LINKSRC = ddi_put8.9f
1711 ddi_put32.9f               := LINKSRC = ddi_put8.9f

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1712 ddi_put64.9f
1713 ddi_putb.9f
1714 ddi_putl.9f
1715 ddi_putll.9f
1716 ddi_putw.9f

1718 ddi_rep_get16.9f
1719 ddi_rep_get32.9f
1720 ddi_rep_get64.9f
1721 ddi_rep_getb.9f
1722 ddi_rep_getl.9f
1723 ddi_rep_getll.9f
1724 ddi_rep_getw.9f

1726 ddi_rep_put16.9f
1727 ddi_rep_put32.9f
1728 ddi_rep_put64.9f
1729 ddi_rep_putb.9f
1730 ddi_rep_putl.9f
1731 ddi_rep_putll.9f
1732 ddi_rep_putw.9f

1734 ddi_segmap_setup.9f

1736 ddi_get_soft_state.9f
1737 ddi_soft_state_fini.9f
1738 ddi_soft_state_free.9f
1739 ddi_soft_state_init.9f
1740 ddi_soft_state_zalloc.9f

1742 ddi strtoull.9f
1744 ddi_umem_free.9f
1746 ddi_umem_unlock.9f
1748 devmap_umem_setup.9f
1750 ddi_devmap_segmap.9f

1752 devmap_load.9f
1754 derrorack.9f
1755 dlokack.9f
1756 dlphysaddrack.9f
1757 dluderrorind.9f

1759 desalloc.9f
1761 unfreezestr.9f

1763 firmware_close.9f
1764 firmware_free.9f
1765 firmware_get_size.9f
1766 firmware_malloc.9f
1767 firmware_open.9f
1768 firmware_read.9f

1770 free_pktiopb.9f
1772 gld_intr.9f
1773 gld_mac_alloc.9f
1774 gld_mac_free.9f
1775 gld_recv.9f
1776 gld_register.9f
1777 gld_sched.9f

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:= LINKSRC = ddi\_put8.9f  
:= LINKSRC = ddi\_rep\_get8.9f  
:= LINKSRC = ddi\_segmap.9f  
:= LINKSRC = ddi\_soft\_state.9f  
:= LINKSRC = ddi\_strtoll.9f  
:= LINKSRC = ddi\_umem\_alloc.9f  
:= LINKSRC = ddi\_umem\_lock.9f  
:= LINKSRC = devmap\_devmem\_setup.9f  
:= LINKSRC = devmap\_setup.9f  
:= LINKSRC = devmap\_unload.9f  
:= LINKSRC = dblbindack.9f  
:= LINKSRC = dblbindack.9f  
:= LINKSRC = dblbindack.9f  
:= LINKSRC = dblbindack.9f  
:= LINKSRC = esballoc.9f  
:= LINKSRC = freezestr.9f  
:= LINKSRC = firmload.9f  
:= LINKSRC = get\_pktiopb.9f  
:= LINKSRC = gld.9f  
:= LINKSRC = gld.9f  
:= LINKSRC = gld.9f  
:= LINKSRC = gld.9f  
:= LINKSRC = gld.9f

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1778 gld_unregister.9f
1780 id_space_create.9f
1781 id_space_destroy.9f
1782 id_space_extend.9f
1783 id_alloc.9f
1784 id_alloc_nosleep.9f
1785 id_allocff.9f
1786 id_allocff_nosleep.9f
1787 id_alloc_specific_nosleep.9f
1788 id_free.9f

1790 id32_free.9f
1791 id32_lookup.9f
1793 inl.9f
1794 inw.9f
1795 repinsb.9f
1796 repinsd.9f
1797 repinsw.9f
1799 kmem_free.9f
1800 kmem_zalloc.9f
1802 kmem_cache_alloc.9f
1803 kmem_cache_destroy.9f
1804 kmem_cache_free.9f
1805 kmem_cache_set_move.9f
1807 kstat_named_setstr.9f
1809 kstat_rung_back_to_waitq.9f
1810 kstat_rung_enter.9f
1811 kstat_rung_exit.9f
1812 kstat_waitq_enter.9f
1813 kstat_waitq_exit.9f
1814 kstat_waitq_to_rung.9f
1816 ldi_awrite.9f
1818 ldi_get_devid.9f
1819 ldi_get_minor_name.9f
1820 ldi_get_otyp.9f
1822 ldi_ident_from_dip.9f
1823 ldi_ident_from_stream.9f
1824 ldi_ident_release.9f
1826 ldi_close.9f
1827 ldi_open_by_devid.9f
1828 ldi_open_by_name.9f
1830 ldi_prop_get_int64.9f
1832 ldi_prop_lookup_byte_array.9f
1833 ldi_prop_lookup_int64_array.9f
1834 ldi_prop_lookup_string.9f
1835 ldi_prop_lookup_string_array.9f
1837 ldi_getmsg.9f
1839 ldi_write.9f
1841 list_destroy.9f
1842 list_head.9f
1843 list_insert_after.9f
1845 ldi_putmsg.9f
1846 ldi_read.9f
1847 list_create.9f
1848 list_create.9f
1849 list_create.9f

```

:= LINKSRC = id\_space.9f  
:= LINKSRC = id32\_alloc.9f  
:= LINKSRC = id32\_alloc.9f

:= LINKSRC = inb.9f  
:= LINKSRC = kmem\_alloc.9f  
:= LINKSRC = kmem\_alloc.9f

:= LINKSRC = kmem\_cache\_create.9f  
:= LINKSRC = kmem\_cache\_create.9f  
:= LINKSRC = kmem\_cache\_create.9f  
:= LINKSRC = kmem\_cache\_create.9f

:= LINKSRC = kstat\_named\_init.9f

:= LINKSRC = kstat\_queue.9f  
:= LINKSRC = ldi\_aread.9f

:= LINKSRC = ldi\_get\_dev.9f  
:= LINKSRC = ldi\_get\_dev.9f  
:= LINKSRC = ldi\_get\_dev.9f

:= LINKSRC = ldi\_ident\_from\_dev.9f  
:= LINKSRC = ldi\_ident\_from\_dev.9f  
:= LINKSRC = ldi\_ident\_from\_dev.9f

:= LINKSRC = ldi\_open\_by\_dev.9f  
:= LINKSRC = ldi\_open\_by\_dev.9f  
:= LINKSRC = ldi\_open\_by\_dev.9f

:= LINKSRC = ldi\_prop\_get\_int.9f

:= LINKSRC = ldi\_prop\_lookup\_int\_array.9f  
:= LINKSRC = ldi\_prop\_lookup\_int\_array.9f  
:= LINKSRC = ldi\_prop\_lookup\_int\_array.9f  
:= LINKSRC = ldi\_prop\_lookup\_int\_array.9f

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1844 list_insert_before.9f      ::= LINKSRC = list_create.9f
1845 list_insert_head.9f       ::= LINKSRC = list_create.9f
1846 list_insert_tail.9f       ::= LINKSRC = list_create.9f
1847 list_is_empty.9f          ::= LINKSRC = list_create.9f
1848 list_link_active.9f       ::= LINKSRC = list_create.9f
1849 list_link_init.9f         ::= LINKSRC = list_create.9f
1850 list_link_replace.9f      ::= LINKSRC = list_create.9f
1851 list_move_tail.9f         ::= LINKSRC = list_create.9f
1852 list_next.9f              ::= LINKSRC = list_create.9f
1853 list_prev.9f              ::= LINKSRC = list_create.9f
1854 list_remove.9f             ::= LINKSRC = list_create.9f
1855 list_remove_head.9f        ::= LINKSRC = list_create.9f
1856 list_remove_tail.9f        ::= LINKSRC = list_create.9f
1857 list_tail.9f               ::= LINKSRC = list_create.9f

1859 mac_free.9f               ::= LINKSRC = mac_alloc.9f
1860 mac_hcksum_set.9f          ::= LINKSRC = mac_hcksum_get.9f
1861 mac_fini_ops.9f            ::= LINKSRC = mac_init_ops.9f
1862 mac_prop_info_set_default_link_flowctrl.9f  ::= LINKSRC = mac_prop_info.9f
1863 mac_prop_info_set_default_str.9f   ::= LINKSRC = mac_prop_info.9f
1864 mac_prop_info_set_default_uint8.9f  ::= LINKSRC = mac_prop_info.9f
1865 mac_prop_info_set_default_uint32.9f ::= LINKSRC = mac_prop_info.9f
1866 mac_prop_info_set_default_uint64.9f ::= LINKSRC = mac_prop_info.9f
1867 mac_prop_info_set_perm.9f        ::= LINKSRC = mac_prop_info.9f
1868 mac_prop_info_set_range_uint32.9f ::= LINKSRC = mac_prop_info.9f

1870 mac_transceiver_info_set_present.9f  ::= LINKSRC = mac_transceiver_info.9f
1871 mac_transceiver_info_set_usable.9f    ::= LINKSRC = mac_transceiver_info.9f

1873 mac_unregister.9f           ::= LINKSRC = mac_register.9f

1875 makecom_g0.9f               ::= LINKSRC = makecom.9f
1876 makecom_g0_s.9f              ::= LINKSRC = makecom.9f
1877 makecom_g1.9f               ::= LINKSRC = makecom.9f
1878 makecom_g5.9f               ::= LINKSRC = makecom.9f

1880 membar_consumer.9f          ::= LINKSRC = membar_ops.9f
1881 membar_enter.9f              ::= LINKSRC = membar_ops.9f
1882 membar_exit.9f              ::= LINKSRC = membar_ops.9f
1883 membar_producer.9f          ::= LINKSRC = membar_ops.9f

1885 memcmp.9f                  ::= LINKSRC = memchr.9f
1886 memcpy.9f                   ::= LINKSRC = memchr.9f
1887 memmove.9f                  ::= LINKSRC = memchr.9f
1888 memset.9f                   ::= LINKSRC = memchr.9f

1890 mod_info.9f                 ::= LINKSRC = mod_install.9f
1891 mod_modname.9f              ::= LINKSRC = mod_install.9f
1892 mod_remove.9f               ::= LINKSRC = mod_install.9f

1894 mutex_destroy.9f             ::= LINKSRC = mutex.9f
1895 mutex_enter.9f              ::= LINKSRC = mutex.9f
1896 mutex_exit.9f               ::= LINKSRC = mutex.9f
1897 mutex_init.9f                ::= LINKSRC = mutex.9f
1898 mutex_owned.9f              ::= LINKSRC = mutex.9f
1899 mutex_tryenter.9f            ::= LINKSRC = mutex.9f

1901 net_event_notify_unregister.9f ::= LINKSRC = net_event_notify_register.9
1903 net_instance_notify_unregister.9f ::= LINKSRC = net_instance_notify_registe
1905 net_instance_protocol_unregister.9f ::= LINKSRC = net_protocol_notify_registe

1907 nvlist_add_boolean_array.9f  ::= LINKSRC = nvlist_add_boolean.9f
1908 nvlist_add_boolean_value.9f  ::= LINKSRC = nvlist_add_boolean.9f
1909 nvlist_add_byte.9f            ::= LINKSRC = nvlist_add_boolean.9f

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1910 nvlist_add_byte_array.9f    ::= LINKSRC = nvlist_add_boolean.9f
1911 nvlist_add_int16.9f          ::= LINKSRC = nvlist_add_boolean.9f
1912 nvlist_add_int16_array.9f   ::= LINKSRC = nvlist_add_boolean.9f
1913 nvlist_add_int32.9f          ::= LINKSRC = nvlist_add_boolean.9f
1914 nvlist_add_int32_array.9f   ::= LINKSRC = nvlist_add_boolean.9f
1915 nvlist_add_int64.9f          ::= LINKSRC = nvlist_add_boolean.9f
1916 nvlist_add_int64_array.9f   ::= LINKSRC = nvlist_add_boolean.9f
1917 nvlist_add_int8.9f            ::= LINKSRC = nvlist_add_boolean.9f
1918 nvlist_add_int8_array.9f   ::= LINKSRC = nvlist_add_boolean.9f
1919 nvlist_add_nvlist.9f          ::= LINKSRC = nvlist_add_boolean.9f
1920 nvlist_add_nvlist_array.9f  ::= LINKSRC = nvlist_add_boolean.9f
1921 nvlist_add_nvpair.9f          ::= LINKSRC = nvlist_add_boolean.9f
1922 nvlist_add_string.9f         ::= LINKSRC = nvlist_add_boolean.9f
1923 nvlist_add_string_array.9f  ::= LINKSRC = nvlist_add_boolean.9f
1924 nvlist_add_uint16.9f          ::= LINKSRC = nvlist_add_boolean.9f
1925 nvlist_add_uint16_array.9f  ::= LINKSRC = nvlist_add_boolean.9f
1926 nvlist_add_uint32.9f          ::= LINKSRC = nvlist_add_boolean.9f
1927 nvlist_add_uint32_array.9f  ::= LINKSRC = nvlist_add_boolean.9f
1928 nvlist_add_uint64.9f          ::= LINKSRC = nvlist_add_boolean.9f
1929 nvlist_add_uint64_array.9f  ::= LINKSRC = nvlist_add_boolean.9f
1930 nvlist_add_uint8.9f          ::= LINKSRC = nvlist_add_boolean.9f
1931 nvlist_add_uint8_array.9f  ::= LINKSRC = nvlist_add_boolean.9f
1932 nvlist_t.9f                  ::= LINKSRC = nvlist_add_boolean.9f

1934 nv_alloc_fini.9f             ::= LINKSRC = nvlist_alloc.9f
1935 nv_alloc_init.9f              ::= LINKSRC = nvlist_alloc.9f
1936 nvlist_dup.9f                 ::= LINKSRC = nvlist_alloc.9f
1937 nvlist_free.9f                  ::= LINKSRC = nvlist_alloc.9f
1938 nvlist_merge.9f                ::= LINKSRC = nvlist_alloc.9f
1939 nvlist_pack.9f                  ::= LINKSRC = nvlist_alloc.9f
1940 nvlist_size.9f                  ::= LINKSRC = nvlist_alloc.9f
1941 nvlist_unpack.9f                ::= LINKSRC = nvlist_alloc.9f
1942 nvlist_xalloc.9f                ::= LINKSRC = nvlist_alloc.9f
1943 nvlist_xdup.9f                  ::= LINKSRC = nvlist_alloc.9f
1944 nvlist_xpack.9f                ::= LINKSRC = nvlist_alloc.9f
1945 nvlist_xunpack.9f               ::= LINKSRC = nvlist_alloc.9f

1947 nvlist_lookup_boolean_array.9f ::= LINKSRC = nvlist_lookup_boolean.9f
1948 nvlist_lookup_boolean_value.9f ::= LINKSRC = nvlist_lookup_boolean.9f
1949 nvlist_lookup_byte.9f           ::= LINKSRC = nvlist_lookup_boolean.9f
1950 nvlist_lookup_byte_array.9f    ::= LINKSRC = nvlist_lookup_boolean.9f
1951 nvlist_lookup_int16.9f          ::= LINKSRC = nvlist_lookup_boolean.9f
1952 nvlist_lookup_int16_array.9f  ::= LINKSRC = nvlist_lookup_boolean.9f
1953 nvlist_lookup_int32.9f          ::= LINKSRC = nvlist_lookup_boolean.9f
1954 nvlist_lookup_int32_array.9f  ::= LINKSRC = nvlist_lookup_boolean.9f
1955 nvlist_lookup_int64.9f          ::= LINKSRC = nvlist_lookup_boolean.9f
1956 nvlist_lookup_int64_array.9f  ::= LINKSRC = nvlist_lookup_boolean.9f
1957 nvlist_lookup_int8.9f           ::= LINKSRC = nvlist_lookup_boolean.9f
1958 nvlist_lookup_int8_array.9f  ::= LINKSRC = nvlist_lookup_boolean.9f
1959 nvlist_lookup_nvlist.9f          ::= LINKSRC = nvlist_lookup_boolean.9f
1960 nvlist_lookup_nvlist_array.9f  ::= LINKSRC = nvlist_lookup_boolean.9f
1961 nvlist_lookup_pairs.9f           ::= LINKSRC = nvlist_lookup_boolean.9f
1962 nvlist_lookup_string.9f          ::= LINKSRC = nvlist_lookup_boolean.9f
1963 nvlist_lookup_string_array.9f  ::= LINKSRC = nvlist_lookup_boolean.9f
1964 nvlist_lookup_uint16.9f           ::= LINKSRC = nvlist_lookup_boolean.9f
1965 nvlist_lookup_uint16_array.9f  ::= LINKSRC = nvlist_lookup_boolean.9f
1966 nvlist_lookup_uint32.9f           ::= LINKSRC = nvlist_lookup_boolean.9f
1967 nvlist_lookup_uint32_array.9f  ::= LINKSRC = nvlist_lookup_boolean.9f
1968 nvlist_lookup_uint64.9f           ::= LINKSRC = nvlist_lookup_boolean.9f
1969 nvlist_lookup_uint64_array.9f  ::= LINKSRC = nvlist_lookup_boolean.9f
1970 nvlist_lookup_uint8.9f             ::= LINKSRC = nvlist_lookup_boolean.9f
1971 nvlist_lookup_uint8_array.9f  ::= LINKSRC = nvlist_lookup_boolean.9f

1973 nvlist_exists.9f                ::= LINKSRC = nvlist_lookup_nvpair.9f
1975 nvpair_name.9f                  ::= LINKSRC = nvlist_lookup_nvpair.9f

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1976 nvpair_type.9f          ::= LINKSRC = nvlist_next_nvpair.9f
1978 nvlist_remove_all.9f    ::= LINKSRC = nvlist_remove.9f
1980 nvpair_value_boolean_array.9f
1981 nvpair_value_byte_array.9f
1982 nvpair_value_int16.9f
1983 nvpair_value_int16_array.9f
1984 nvpair_value_int32.9f
1985 nvpair_value_int32_array.9f
1986 nvpair_value_int64.9f
1987 nvpair_value_int64_array.9f
1988 nvpair_value_int8.9f
1989 nvpair_value_int8_array.9f
1990 nvpair_value_nvlist.9f
1991 nvpair_value_nvlist_array.9f
1992 nvpair_value_string.9f
1993 nvpair_value_string_array.9f
1994 nvpair_value_uint16.9f
1995 nvpair_value_uint16_array.9f
1996 nvpair_value_uint32.9f
1997 nvpair_value_uint32_array.9f
1998 nvpair_value_uint64.9f
1999 nvpair_value_uint64_array.9f
2000 nvpair_value_uint8.9f
2001 nvpair_value_uint8_array.9f
2003 outl.9f                  ::= LINKSRC = outb.9f
2004 outw.9f                  ::= LINKSRC = outb.9f
2005 repoutsb.9f              ::= LINKSRC = outb.9f
2006 repoutsd.9f              ::= LINKSRC = outb.9f
2007 repoutsw.9f              ::= LINKSRC = outb.9f
2009 pci_config_get16.9f       ::= LINKSRC = pci_config_get8.9f
2010 pci_config_get32.9f       ::= LINKSRC = pci_config_get8.9f
2011 pci_config_get64.9f       ::= LINKSRC = pci_config_get8.9f
2012 pci_config_getb.9f        ::= LINKSRC = pci_config_get8.9f
2013 pci_config_get1.9f        ::= LINKSRC = pci_config_get8.9f
2014 pci_config_get11.9f       ::= LINKSRC = pci_config_get8.9f
2015 pci_config_getw.9f        ::= LINKSRC = pci_config_get8.9f
2016 pci_config_put16.9f       ::= LINKSRC = pci_config_get8.9f
2017 pci_config_put32.9f       ::= LINKSRC = pci_config_get8.9f
2018 pci_config_put64.9f       ::= LINKSRC = pci_config_get8.9f
2019 pci_config_put8.9f        ::= LINKSRC = pci_config_get8.9f
2020 pci_config_pubt.9f        ::= LINKSRC = pci_config_get8.9f
2021 pci_config_put1.9f        ::= LINKSRC = pci_config_get8.9f
2022 pci_config_put11.9f       ::= LINKSRC = pci_config_get8.9f
2023 pci_config_putw.9f        ::= LINKSRC = pci_config_get8.9f
2025 pci_config_teardown.9f   ::= LINKSRC = pci_config_setup.9f
2027 pci_ereport_post.9f      ::= LINKSRC = pci_ereport_setup.9f
2028 pci_ereport_teardown.9f  ::= LINKSRC = pci_ereport_setup.9f
2030 pci_restore_config_regs.9f
2032 minphys.9f               ::= LINKSRC = physio.9f
2034 pm_idle_component.9f     ::= LINKSRC = pm_busy_component.9f
2036 pm_lower_power.9f        ::= LINKSRC = pm_raise_power.9f
2038 priv_policy_choice.9f    ::= LINKSRC = priv_policy.9f
2039 priv_policy_only.9f      ::= LINKSRC = priv_policy.9f
2041 proc_ref.9f              ::= LINKSRC = proc_signal.9f

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2042 proc_unref.9f           ::= LINKSRC = proc_signal.9f
2044 qprocoff.9f             ::= LINKSRC = qprocson.9f
2046 qwait_sig.9f            ::= LINKSRC = qwait.9f
2048 rmallocmap_wait.9f      ::= LINKSRC = rmallocmap.9f
2049 rmfreemap.9f            ::= LINKSRC = rmallocmap.9f
2051 rw_destroy.9f           ::= LINKSRC = rwlock.9f
2052 rw_downgrade.9f         ::= LINKSRC = rwlock.9f
2053 rw_enter.9f             ::= LINKSRC = rwlock.9f
2054 rw_exit.9f              ::= LINKSRC = rwlock.9f
2055 rw_init.9f              ::= LINKSRC = rwlock.9f
2056 rw_read_locked.9f       ::= LINKSRC = rwlock.9f
2057 rw_tryenter.9f          ::= LINKSRC = rwlock.9f
2058 rw_tryupgrade.9f        ::= LINKSRC = rwlock.9f
2060 sas_phymap_destroy.9f   ::= LINKSRC = sas_phymap_create.9f
2061 sas_phymap_phy_add.9f   ::= LINKSRC = sas_phymap_create.9f
2062 sas_phymap_phy_rem.9f   ::= LINKSRC = sas_phymap_create.9f
2064 sas_phymap_lookup_uaprv.9f
2065 sas_phymap_phy2ua.9f    ::= LINKSRC = sas_phymap_lookup_ua.9f
2066 sas_phymap_ua_free.9f   ::= LINKSRC = sas_phymap_lookup_ua.9f
2067 sas_phymap_uahasphys.9f
2068 sas_phymap_ua2phys.9f   ::= LINKSRC = sas_phymap_lookup_ua.9f
2069 sas_phymap_phys_next.9f
2070 sas_phymap_phys_free.9f  ::= LINKSRC = sas_phymap_lookup_ua.9f
2072 scsi_device_unit_address.9f
2073 scsi_device_hba_private_get.9f
2074 scsi_device_hba_private_set.9f
2076 scsi_dname.9f            ::= LINKSRC = scsi_cname.9f
2077 scsi_mname.9f            ::= LINKSRC = scsi_cname.9f
2078 scsi_rname.9f            ::= LINKSRC = scsi_cname.9f
2079 scsi_sname.9f            ::= LINKSRC = scsi_cname.9f
2081 scsi_dmafree.9f          ::= LINKSRC = scsi_dmaget.9f
2083 scsi_sense_cmdspecifc_uint64.9f
2084 scsi_sense_info_uint64.9f  ::= LINKSRC = scsi_ext_sense_fields.9f
2086 scsi_hba_detach.9f       ::= LINKSRC = scsi_hba_attach_setup.9f
2088 scsi_hba_fini.9f         ::= LINKSRC = scsi_hba_init.9f
2090 scsi_hba_iportmap_destroy.9f
2091 scsi_hba_iportmap_iport_add.9f
2092 scsi_hba_iportmap_iport_remove.9f
2094 scsi_hba_iport_find.9f   ::= LINKSRC = scsi_hba_iport_exist.9f
2096 scsi_hba_pkt_free.9f     ::= LINKSRC = scsi_hba_pkt_alloc.9f
2098 scsi_hba_tgtmap_destroy.9f
2099 scsi_hba_tgtmap_set_begin.9f
2100 scsi_hba_tgtmap_set_add.9f
2101 scsi_hba_tgtmap_set_end.9f
2102 scsi_hba_tgtmap_set_flush.9f
2103 scsi_hba_tgtmap_tgt_add.9f
2104 scsi_hba_tgtmap_tgt_remove.9f
2106 scsi_hba_tran_free.9f    ::= LINKSRC = scsi_hba_tran_alloc.9f

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2108 scsi_ifsetcap.9f          ::= LINKSRC = scsi_ifgetcap.9f
2110 scsi_pktfree.9f           ::= LINKSRC = scsi_pkalloc.9f
2111 scsi_resalloc.9f          ::= LINKSRC = scsi_pkalloc.9f
2112 scsi_resfree.9f           ::= LINKSRC = scsi_pkalloc.9f
2114 scsi_sense_asc.9f         ::= LINKSRC = scsi_sense_key.9f
2115 scsi_sense_ascq.9f        ::= LINKSRC = scsi_sense_key.9f
2117 scsi_unslave.9f           ::= LINKSRC = scsi_unprobe.9f
2119 scsi_wwn_to_wwnstr.9f     ::= LINKSRC = scsi_wwnstr_to_wwn.9f
2120 scsi_free_wwnstr.9f       ::= LINKSRC = scsi_wwnstr_to_wwn.9f
2122 sema_destroy.9f            ::= LINKSRC = semaphore.9f
2123 sema_init.9f              ::= LINKSRC = semaphore.9f
2124 sema_p.9f                 ::= LINKSRC = semaphore.9f
2125 sema_p_sig.9f             ::= LINKSRC = semaphore.9f
2126 sema_tryp.9f              ::= LINKSRC = semaphore.9f
2127 sema_v.9f                 ::= LINKSRC = semaphore.9f
2129 sprintf.9f                ::= LINKSRC = sprintf.9f
2130 vsprintf.9f               ::= LINKSRC = sprintf.9f
2131 vsnprintf.9f              ::= LINKSRC = sprintf.9f
2133 numtos.9f                 ::= LINKSRC = stoi.9f
2135 ddi_strdup.9f              ::= LINKSRC = string.9f
2136 strcasecmp.9f             ::= LINKSRC = string.9f
2137 strcat.9f                 ::= LINKSRC = string.9f
2138 strchr.9f                ::= LINKSRC = string.9f
2139 strcmp.9f                 ::= LINKSRC = string.9f
2140 strcpy.9f                  ::= LINKSRC = string.9f
2141 strdup.9f                 ::= LINKSRC = string.9f
2142 strfree.9f                ::= LINKSRC = string.9f
2143 strlcat.9f                ::= LINKSRC = string.9f
2144 strlcpy.9f                ::= LINKSRC = string.9f
2145 strlen.9f                 ::= LINKSRC = string.9f
2146 strncasecmp.9f             ::= LINKSRC = string.9f
2147 strncat.9f                ::= LINKSRC = string.9f
2148 strncmp.9f                ::= LINKSRC = string.9f
2149 strncpy.9f                ::= LINKSRC = string.9f
2150 strnlen.9f                ::= LINKSRC = string.9f
2151 strrchr.9f                ::= LINKSRC = string.9f
2152 strspn.9f                 ::= LINKSRC = string.9f
2154 ddi_taskq_create.9f        ::= LINKSRC = taskq.9f
2155 ddi_taskq_destroy.9f       ::= LINKSRC = taskq.9f
2156 ddi_taskq_dispatch.9f      ::= LINKSRC = taskq.9f
2157 ddi_taskq_resume.9f        ::= LINKSRC = taskq.9f
2158 ddi_taskq_suspend.9f       ::= LINKSRC = taskq.9f
2159 ddi_taskq_wait.9f          ::= LINKSRC = taskq.9f
2160 taskq_suspended.9f         ::= LINKSRC = taskq.9f
2162 uconv_u16tou8.9f           ::= LINKSRC = uconv_u16tou32.9f
2163 uconv_u32tou16.9f          ::= LINKSRC = uconv_u16tou32.9f
2164 uconv_u32tou8.9f           ::= LINKSRC = uconv_u16tou32.9f
2165 uconv_u8tou16.9f          ::= LINKSRC = uconv_u16tou32.9f
2166 uconv_u8tou32.9f           ::= LINKSRC = uconv_u16tou32.9f
2168 usb_alloc_bulk_req.9f       ::= LINKSRC = usb_alloc_request.9f
2169 usb_alloc_ctrl_req.9f       ::= LINKSRC = usb_alloc_request.9f
2170 usb_alloc_intr_req.9f       ::= LINKSRC = usb_alloc_request.9f
2171 usb_alloc_isoc_req.9f       ::= LINKSRC = usb_alloc_request.9f
2172 usb_free_bulk_req.9f        ::= LINKSRC = usb_alloc_request.9f
2173 usb_free_ctrl_req.9f        ::= LINKSRC = usb_alloc_request.9f

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2174 usb_free_intr_req.9f       ::= LINKSRC = usb_alloc_request.9f
2175 usb_free_isoc_req.9f        ::= LINKSRC = usb_alloc_request.9f
2176 usb_client_detach.9f        ::= LINKSRC = usb_client_attach.9f
2178 usb_get_if_number.9f        ::= LINKSRC = usb_get_alt_if.9f
2179 usb_owns_device.9f          ::= LINKSRC = usb_get_alt_if.9f
2180 usb_set_alt_if.9f           ::= LINKSRC = usb_get_alt_if.9f
2182 usb_set_cfg.9f              ::= LINKSRC = usb_get_cfg.9f
2184 usb_free_descr_tree.9f      ::= LINKSRC = usb_get_dev_data.9f
2185 usb_free_dev_data.9f        ::= LINKSRC = usb_get_dev_data.9f
2186 usb_print_descr_tree.9f     ::= LINKSRC = usb_get_dev_data.9f
2188 usb_pipe_ctrl_xfer_wait.9f   ::= LINKSRC = usb_pipe_ctrl_xfer.9f
2189 usb_pipe_stop_intr_polling.9f ::= LINKSRC = usb_pipe_intr_xfer.9f
2190 usb_pipe_stop_isoc_polling.9f ::= LINKSRC = usb_pipe_isoc_xfer.9f
2192 usb_pipe_get_private.9f      ::= LINKSRC = usb_pipe_set_private.9f
2194 usb_pipe_open.9f             ::= LINKSRC = usb_pipe_xopen.9f
2196 usb_unregister_hotplug_cbs.9f ::= LINKSRC = usb_register_hotplug_cbs.9f
2198 usba_free_hcdi_ops.9f        ::= LINKSRC = usba_alloc_hcdi_ops.9f
2200 usba_hcdi_unregister.9f      ::= LINKSRC = usba_hcdi_register.9f
2202 usba_hubdi_close.9f          ::= LINKSRC = usba_hubdi_cb_ops.9f
2203 usba_hubdi_ioctl.9f          ::= LINKSRC = usba_hubdi_cb_ops.9f
2204 usba_hubdi_open.9f           ::= LINKSRC = usba_hubdi_cb_ops.9f
2206 usba_hubdi_root_hub_power.9f ::= LINKSRC = usba_hubdi_dev_ops.9f
2208 usba_hubdi_unbind_root_hub.9f ::= LINKSRC = usba_hubdi_bind_root_hub.9f
2211 va_copy.9f                  ::= LINKSRC = va_arg.9f
2212 va_end.9f                   ::= LINKSRC = va_arg.9f
2213 va_start.9f                 ::= LINKSRC = va_arg.9f
2215 vmem_xalloc.9f              ::= LINKSRC = vmem_alloc.9f
2216 vmem_free.9f                ::= LINKSRC = vmem_alloc.9f
2217 vmem_xfree.9f               ::= LINKSRC = vmem_alloc.9f
2219 vmem_xcreate.9f             ::= LINKSRC = vmem_create.9f
2220 vmem_destroy.9f             ::= LINKSRC = vmem_create.9f
2222 vmem_size.9f                ::= LINKSRC = vmem_walk.9f
2224 .KEEP_STATE:
2226 include      $(SRC)/man/Makefile.man
2228 install:      $(ROOTMANFILES) $(ROOTMANLINKS)

```

new/usr/src/man/man9f/usba\_hubdi\_bind\_root\_hub.9f

```
*****
3645 Sat Jan 12 22:56:06 2019
new/usr/src/man/man9f/usba_hubdi_bind_root_hub.9f
10229 Some man pages have incorrect cross-references
*****
1 .\" This file and its contents are supplied under the terms of the
2 .\" Common Development and Distribution License (" CDDL"), version 1.0.
3 .\" You may only use this file in accordance with the terms of version
4 .\" 1.0 of the CDDL.
5 .\" 
6 .\" A full copy of the text of the CDDL should have accompanied this
7 .\" source. A copy of the CDDL is also available via the Internet at
8 .\" http://www.illumos.org/license/CDDL.
10 .\" 
11 .\" Copyright 2016 Joyent, Inc.
13 .\" 
14 .Dd Sep 16, 2016
15 .Dt USBA_HCDI_BIND_ROOT_HUB 9F
16 .Os
17 .Sh NAME
18 .Nm usba_hubdi_bind_root_hub ,
19 .Nm usba_hubdi_unbind_root_hub
20 .Nd bind and unbind the root USB hub
21 .Sh SYNOPSIS
22 .In sys/usb/usba/hubdi.h
23 .Ft int
24 .Fo usba_hubdi_bind_root_hub
25 .Fa "dev_info_t *dip"
26 .Fa "uchar_t *hub_descr"
27 .Fa "size_t descr_len"
28 .Fa "usb_dev_descr_t *dev_descr"
29 .Fc
30 .Ft int
31 .Fo usba_hubdi_unbind_root_hub
32 .Fa "dev_info_t *dip"
33 .Fc
34 .Sh INTERFACE LEVEL
35 .Sy Volatile -
36 illumos USB HCD private function
37 .Pp
38 This is a private function that is not part of the stable DDI.
39 It may be removed or changed at any time.
40 .Sh PARAMETERS
41 .Bl -tag -width Fa
42 .It Fa dip
43 Pointer to the device's
44 .Sy dev_info
45 structure.
46 .It Fa hub_descr
47 Pointer to a byte array that contains the standard descriptors for a USB
48 Hub device.
49 .It Fa descr_len
50 The length in bytes of the
51 .Fa hub_descr
52 byte array.
53 .It Fa dev_descr
54 A filled in standard USB device descriptor.
55 .El
56 .Sh DESCRIPTION
57 The
58 .Fn usba_hubdi_bind_root_hub
59 and
60 .Fn usba_hubdi_unbind_root_hub
61 functions are used to bind and unbind the root USB hub that is a part of
```

1

new/usr/src/man/man9f/usba\_hubdi\_bind\_root\_hub.9f

```
62 every HCD driver.
63 See
64 .Xr usba_hcdi 9E
65 for more information on this relationship.
66 .Pp
67 The
68 .Fn usba_hubdi_root_bind_driver
69 is used after calling the
70 .Xr usba_hcdi_register 9F
71 function during a device's
72 .Xr attach 9E
73 entry point.
74 .Pp
75 Because the root hub is generally a virtual hub, the HCD driver is
76 responsible for making it appear to the system as a normal USB hub.
77 .Pp
78 The contents of the
79 .Fa hub_descr
80 should be the standard USB Hub class-specific descriptor.
81 This hub descriptor should match a hub of a similar class of speed.
82 For example, with the xhci controller, a USB 3.x Hub class-specific descriptor
83 is used, whereas for the ehci controller, a USB 2.x Hub class-specific
84 descriptor is used.
85 For more information, see the USB 3.1 specification, section 10.15.2
86 .Em Class-specific Descriptors .
87 .Pp
88 Similarly, the contents of the
89 .Fa dev_descr
90 need to be a filled in USB device descriptor that indicates that the
91 root hub corresponds to the appropriate USB generation.
92 For more information on the contents, see
93 .Xr usb_dev_descr 9S
94 and the USB 3.1 specification, section 10.15.1
95 .Em Standard Descriptors for Hub Class .
96 .Pp
97 The
98 .Fn usba_hubdi_unbind_root_hub
99 function is used to detach the root hub associated with the HCD driver.
100 This should be called during a device's
101 .Xr detach 9E
102 routine before calling
103 .Xr usba_hcdi_unregister 9F .
104 .Pp
105 If a call to the
106 .Fn usba_hubdi_unbind_root_hub
107 function fails during a device's
108 .Xr detach 9E
109 function, then it should fail the call to
110 .Xr detach 9E .
111 .Sh CONTEXT
112 The
113 .Fn usba_hubdi_bind_root_hub
114 function should only be called during a device's
115 .Xr attach 9E
116 entry point.
117 .Pp
118 The
119 .Fn usba_hubdi_unbind_root_hub
120 function should only be called during a device's
121 .Xr detach 9E entry point.
122 .Sh RETURN VALUES
123 Upon successful completion, the
124 .Fn usba_hubdi_bind_root_hub
125 and
126 .Fn usba_hubdi_unbind_root_hub
127 functions return
```

2

```
128 .Sy USB_SUCCESS .
129 Otherwise, they return
130 .Sy USB_FAILURE
131 to indicate that they could not proceed.
132 .Sh SEE ALSO
133 .Xr attach 9E ,
134 .Xr detach 9E ,
135 .Xr usba_hcdi 9E ,
136 .Xr usba_hodi_register 9F ,
137 .Xr usba_hodi_unregister 9F ,
138 .Xr usb_dev_descr 9S
138 .Xr usb_dev_Descr 9S
```

new/usr/src/man/man9s/qinit.9s

1

\*\*\*\*\*  
2538 Sat Jan 12 22:56:06 2019  
new/usr/src/man/man9s/qinit.9s  
10229 Some man pages have incorrect cross-references  
\*\*\*\*\*

unchanged\_portion\_omitted

62 .Ed  
63 .Sh SEE ALSO  
64 .Xr queue 9S ,  
65 .Xr streamtab'9S  
66 .Pp  
67 .%T Writing Device Drivers  
67 .Xr Writing Device Drivers  
68 .Pp  
69 .%T STREAMS Programming Guide  
69 .Xr STREAMS Programming Guide  
70 .Sh NOTES  
71 This release includes no support for module statistics.

```
*****
76202 Sat Jan 12 22:56:06 2019
new/usr/src/pkg/manifests/system-kernel.man9f.inc
10229 Some man pages have incorrect cross-references
*****
```

1 #  
 2 # This file and its contents are supplied under the terms of the  
 3 # Common Development and Distribution License (" CDDL"), version 1.0.  
 4 # You may only use this file in accordance with the terms of version  
 5 # 1.0 of the CDDL.  
 6 #  
 7 # A full copy of the text of the CDDL should have accompanied this  
 8 # source. A copy of the CDDL is also available via the Internet  
 9 # at <http://www.illumos.org/license/CDDL>.  
 10 #

12 #  
 13 # Copyright 2017, Richard Lowe  
 14 # Copyright 2014 Garrett D'Amore <garrett@damore.org>  
 15 # Copyright 2016 Nexenta Systems, Inc.  
 16 # Copyright 2016 Hans Rosenfeld <rosenfeld@grumpf.hope-2000.org>  
 17 #

19 file path=usr/share/man/man9f/ASSERT.9f  
 20 file path=usr/share/man/man9f/Intro.9f  
 21 file path=usr/share/man/man9f/OTHERQ.9f  
 22 file path=usr/share/man/man9f/RD.9f  
 23 file path=usr/share/man/man9f/SAMESTR.9f  
 24 file path=usr/share/man/man9f/STRUCT\_DECL.9f  
 25 file path=usr/share/man/man9f/WR.9f  
 26 file path=usr/share/man/man9f/adjmsg.9f  
 27 file path=usr/share/man/man9f/allocb.9f  
 28 file path=usr/share/man/man9f/atomic\_add.9f  
 29 file path=usr/share/man/man9f/atomic\_and.9f  
 30 file path=usr/share/man/man9f/atomic\_bits.9f  
 31 file path=usr/share/man/man9f/atomic\_cas.9f  
 32 file path=usr/share/man/man9f/atomic\_dec.9f  
 33 file path=usr/share/man/man9f/atomic\_inc.9f  
 34 file path=usr/share/man/man9f/atomic\_ops.9f  
 35 file path=usr/share/man/man9f/atomic\_or.9f  
 36 file path=usr/share/man/man9f/atomic\_swap.9f  
 37 file path=usr/share/man/man9f/avl.9f  
 38 file path=usr/share/man/man9f/backq.9f  
 39 file path=usr/share/man/man9f/bcanput.9f  
 40 file path=usr/share/man/man9f/bcmp.9f  
 41 file path=usr/share/man/man9f/bcopy.9f  
 42 file path=usr/share/man/man9f/bioclone.9f  
 43 file path=usr/share/man/man9f/biodone.9f  
 44 file path=usr/share/man/man9f/bioerror.9f  
 45 file path=usr/share/man/man9f/biofini.9f  
 46 file path=usr/share/man/man9f/bioinit.9f  
 47 file path=usr/share/man/man9f/biomodified.9f  
 48 file path=usr/share/man/man9f/bioreset.9f  
 49 file path=usr/share/man/man9f/biosize.9f  
 50 file path=usr/share/man/man9f/biowait.9f  
 51 file path=usr/share/man/man9f/bp\_copyin.9f  
 52 file path=usr/share/man/man9f/bp\_copyout.9f  
 53 file path=usr/share/man/man9f/bp\_mapin.9f  
 54 file path=usr/share/man/man9f/bp\_mapout.9f  
 55 file path=usr/share/man/man9f/btop.9f  
 56 file path=usr/share/man/man9f/btopr.9f  
 57 file path=usr/share/man/man9f/bufcall.9f  
 58 file path=usr/share/man/man9f/bzero.9f  
 59 file path=usr/share/man/man9f/canput.9f  
 60 file path=usr/share/man/man9f/canputnext.9f  
 61 file path=usr/share/man/man9f/clrbuf.9f

62 file path=usr/share/man/man9f/cmn\_err.9f  
 63 file path=usr/share/man/man9f/condvar.9f  
 64 file path=usr/share/man/man9f/copyb.9f  
 65 file path=usr/share/man/man9f/copyin.9f  
 66 file path=usr/share/man/man9f/copymsg.9f  
 67 file path=usr/share/man/man9f/copyout.9f  
 68 file path=usr/share/man/man9f/csx\_AccessConfigurationRegister.9f  
 69 file path=usr/share/man/man9f/csx\_CDI\_Info.9f  
 70 file path=usr/share/man/man9f/csx\_ConvertSize.9f  
 71 file path=usr/share/man/man9f/csx\_ConvertSpeed.9f  
 72 file path=usr/share/man/man9f/csx\_DeregisterClient.9f  
 73 file path=usr/share/man/man9f/csx\_DupHandle.9f  
 74 file path=usr/share/man/man9f/csx\_Error2Text.9f  
 75 file path=usr/share/man/man9f/csx\_Event2Text.9f  
 76 file path=usr/share/man/man9f/csx\_FreeHandle.9f  
 77 file path=usr/share/man/man9f/csx\_Get8.9f  
 78 file path=usr/share/man/man9f/csx\_GetFirstClient.9f  
 79 file path=usr/share/man/man9f/csx\_GetFirstTuple.9f  
 80 file path=usr/share/man/man9f/csx\_GetHandleOffset.9f  
 81 file path=usr/share/man/man9f/csx\_GetMappedAddr.9f  
 82 file path=usr/share/man/man9f/csx\_GetStatus.9f  
 83 file path=usr/share/man/man9f/csx\_GetTupleData.9f  
 84 file path=usr/share/man/man9f/csx\_MakeDeviceNode.9f  
 85 file path=usr/share/man/man9f/csx\_MapLogSocket.9f  
 86 file path=usr/share/man/man9f/csx\_MapMemPage.9f  
 87 file path=usr/share/man/man9f/csx\_ModifyConfiguration.9f  
 88 file path=usr/share/man/man9f/csx\_ModifyWindow.9f  
 89 file path=usr/share/man/man9f/csx\_ParseTuple.9f  
 90 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_BATTERY.9f  
 91 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_BYTEORDER.9f  
 92 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_CFTABLE\_ENTRY.9f  
 93 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_CONFIG.9f  
 94 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_DATE.9f  
 95 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_DEVICE.9f  
 96 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_DEVICEGRO.9f  
 97 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_DEVICEGRO\_A.9f  
 98 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_FORMAT.9f  
 99 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_FUNCE.9f  
100 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_FUNCID.9f  
101 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_GEOMETRY.9f  
102 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_JEDEC\_C.9f  
103 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_LINKTARGET.9f  
104 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_LONGLINK\_A.9f  
105 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_LONGLINK\_MFC.9f  
106 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_MANFID.9f  
107 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_ORG.9f  
108 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_SPCL.9f  
109 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_SWIL.9f  
110 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_VERS\_1.9f  
111 file path=usr/share/man/man9f/csx\_Parse\_CISTPL\_VERS\_2.9f  
112 file path=usr/share/man/man9f/csx\_Put8.9f  
113 file path=usr/share/man/man9f/csx\_RegisterClient.9f  
114 file path=usr/share/man/man9f/csx\_ReleaseConfiguration.9f  
115 file path=usr/share/man/man9f/csx\_RepGet8.9f  
116 file path=usr/share/man/man9f/csx\_RepPut8.9f  
117 file path=usr/share/man/man9f/csx\_RequestConfiguration.9f  
118 file path=usr/share/man/man9f/csx\_RequestIO.9f  
119 file path=usr/share/man/man9f/csx\_RequestIRQ.9f  
120 file path=usr/share/man/man9f/csx\_RequestSocketMask.9f  
121 file path=usr/share/man/man9f/csx\_RequestWindow.9f  
122 file path=usr/share/man/man9f/csx\_ResetFunction.9f  
123 file path=usr/share/man/man9f/csx\_SetEventMask.9f  
124 file path=usr/share/man/man9f/csx\_SetHandleOffset.9f  
125 file path=usr/share/man/man9f/csx\_ValidateCIS.9f  
126 file path=usr/share/man/man9f/datams.9f  
127 file path=usr/share/man/man9f/ddi\_add\_event\_handler.9f

```

128 file path=usr/share/man/man9f/ddi_add_intr.9f
129 file path=usr/share/man/man9f/ddi_add_softintr.9f
130 file path=usr/share/man/man9f/ddi_binding_name.9f
131 file path=usr/share/man/man9f/ddi_bttop.9f
132 file path=usr/share/man/man9f/ddi_can_receive_sig.9f
133 file path=usr/share/man/man9f/ddi_cb_register.9f
134 file path=usr/share/man/man9f/ddi_check_acc_handle.9f
135 file path=usr/share/man/man9f/ddi_copyin.9f
136 file path=usr/share/man/man9f/ddi_copyout.9f
137 file path=usr/share/man/man9f/ddi_create_minor_node.9f
138 file path=usr/share/man/man9f/ddi_cred.9f
139 file path=usr/share/man/man9f/ddi_dev_is_needed.9f
140 file path=usr/share/man/man9f/ddi_dev_is_sid.9f
141 file path=usr/share/man/man9f/ddi_dev_nintrs.9f
142 file path=usr/share/man/man9f/ddi_dev_nregs.9f
143 file path=usr/share/man/man9f/ddi_dev_resize.9f
144 file path=usr/share/man/man9f/ddi_dev_report_fault.9f
145 file path=usr/share/man/man9f/ddi_device_copy.9f
146 file path=usr/share/man/man9f/ddi_device_zero.9f
147 file path=usr/share/man/man9f/ddi_devid_compare.9f
148 file path=usr/share/man/man9f/ddi_dma_bind_handle.9f
149 file path=usr/share/man/man9f/ddi_dma_alloc_handle.9f
150 file path=usr/share/man/man9f/ddi_dma_buf_bind_handle.9f
151 file path=usr/share/man/man9f/ddi_dma_burstsizes.9f
152 file path=usr/share/man/man9f/ddi_dma_free_handle.9f
153 file path=usr/share/man/man9f/ddi_dma_getwin.9f
154 file path=usr/share/man/man9f/ddi_dma_mem_alloc.9f
155 file path=usr/share/man/man9f/ddi_dma_mem_free.9f
156 file path=usr/share/man/man9f/ddi_dma_nextcookie.9f
157 file path=usr/share/man/man9f/ddi_dma_numwin.9f
158 file path=usr/share/man/man9f/ddi_dma_set_sbus64.9f
159 file path=usr/share/man/man9f/ddi_dma_sync.9f
160 file path=usr/share/man/man9f/ddi_dma_unbind_handle.9f
161 file path=usr/share/man/man9f/ddi_dmae.9f
162 file path=usr/share/man/man9f/ddi_driver_major.9f
163 file path=usr/share/man/man9f/ddi_driver_name.9f
164 file path=usr/share/man/man9f/ddi_enter_critical.9f
165 file path=usr/share/man/man9f/ddi_ffs.9f
166 file path=usr/share/man/man9f/ddi_fm_acc_err_clear.9f
167 file path=usr/share/man/man9f/ddi_fm_acc_err_get.9f
168 file path=usr/share/man/man9f/ddi_fm_ereport_post.9f
169 file path=usr/share/man/man9f/ddi_fm_handler_register.9f
170 file path=usr/share/man/man9f/ddi_fm_init.9f
171 file path=usr/share/man/man9f/ddi_fm_service_impact.9f
172 file path=usr/share/man/man9f/ddi_get8.9f
173 file path=usr/share/man/man9f/ddi_get_cred.9f
174 file path=usr/share/man/man9f/ddi_get_devstate.9f
175 file path=usr/share/man/man9f/ddi_get_driver_private.9f
176 file path=usr/share/man/man9f/ddi_get_eventcookie.9f
177 file path=usr/share/man/man9f/ddi_get_instance.9f
178 file path=usr/share/man/man9f/ddi_get_kt_did.9f
179 file path=usr/share/man/man9f/ddi_get_lbolt.9f
180 file path=usr/share/man/man9f/ddi_get_parent.9f
181 file path=usr/share/man/man9f/ddi_get_pid.9f
182 file path=usr/share/man/man9f/ddi_get_time.9f
183 file path=usr/share/man/man9f/ddi_getiminor.9f
184 file path=usr/share/man/man9f/ddi_in_panic.9f
185 file path=usr/share/man/man9f/ddi_intr_add_handler.9f
186 file path=usr/share/man/man9f/ddi_intr_add_softint.9f
187 file path=usr/share/man/man9f/ddi_intr_alloc.9f
188 file path=usr/share/man/man9f/ddi_intr_dup_handler.9f
189 file path=usr/share/man/man9f/ddi_intr_enable.9f
190 file path=usr/share/man/man9f/ddi_intr_get_cap.9f
191 file path=usr/share/man/man9f/ddi_intr_get_hilevel_pri.9f
192 file path=usr/share/man/man9f/ddi_intr_get_nintrs.9f
193 file path=usr/share/man/man9f/ddi_intr_get_pending.9f

```

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194 file path=usr/share/man/man9f/ddi_intr_get_pri.9f
195 file path=usr/share/man/man9f/ddi_intr_get_supported_types.9f
196 file path=usr/share/man/man9f/ddi_intr_hilevel.9f
197 file path=usr/share/man/man9f/ddi_intr_set_mask.9f
198 file path=usr/share/man/man9f/ddi_intr_set_nreq.9f
199 file path=usr/share/man/man9f/ddi_io_get8.9f
200 file path=usr/share/man/man9f/ddi_io_put8.9f
201 file path=usr/share/man/man9f/ddi_io_rep_get8.9f
202 file path=usr/share/man/man9f/ddi_io_rep_put8.9f
203 file path=usr/share/man/man9f/ddi_log_sysevent.9f
204 file path=usr/share/man/man9f/ddi_map_regs.9f
205 file path=usr/share/man/man9f/ddi_mem_get8.9f
206 file path=usr/share/man/man9f/ddi_mem_put8.9f
207 file path=usr/share/man/man9f/ddi_mem_rep_get8.9f
208 file path=usr/share/man/man9f/ddi_mem_rep_put8.9f
209 file path=usr/share/man/man9f/ddi_mmap_get_model.9f
210 file path=usr/share/man/man9f/ddi_model_convert_from.9f
211 file path=usr/share/man/man9f/ddi_modopen.9f
212 file path=usr/share/man/man9f/ddi_no_info.9f
213 file path=usr/share/man/man9f/ddi_node_name.9f
214 file path=usr/share/man/man9f/ddi_peek.9f
215 file path=usr/share/man/man9f/ddi_periodic_add.9f
216 file path=usr/share/man/man9f/ddi_periodic_delete.9f
217 file path=usr/share/man/man9f/ddi_poke.9f
218 file path=usr/share/man/man9f/ddi_prop_create.9f
219 file path=usr/share/man/man9f/ddi_prop_exists.9f
220 file path=usr/share/man/man9f/ddi_prop_get_int.9f
221 file path=usr/share/man/man9f/ddi_prop_lookup.9f
222 file path=usr/share/man/man9f/ddi_prop_op.9f
223 file path=usr/share/man/man9f/ddi_prop_update.9f
224 file path=usr/share/man/man9f/ddi_put8.9f
225 file path=usr/share/man/man9f/ddi_regs_map_free.9f
226 file path=usr/share/man/man9f/ddi_regs_map_setup.9f
227 file path=usr/share/man/man9f/ddi_remove_event_handler.9f
228 file path=usr/share/man/man9f/ddi_remove_minor_node.9f
229 file path=usr/share/man/man9f/ddi_removing_power.9f
230 file path=usr/share/man/man9f/ddi_rep_get8.9f
231 file path=usr/share/man/man9f/ddi_rep_put8.9f
232 file path=usr/share/man/man9f/ddi_report_dev.9f
233 file path=usr/share/man/man9f/ddi_root_node.9f
234 file path=usr/share/man/man9f/ddi_segmap.9f
235 file path=usr/share/man/man9f/ddi_slaveonly.9f
236 file path=usr/share/man/man9f/ddi_soft_state.9f
237 file path=usr/share/man/man9f/ddi_strtol.9f
238 file path=usr/share/man/man9f/ddi_strtol1.9f
239 file path=usr/share/man/man9f/ddi_strtoul.9f
240 file path=usr/share/man/man9f/ddi_umem_alloc.9f
241 file path=usr/share/man/man9f/ddi_umem_iosetup.9f
242 file path=usr/share/man/man9f/ddi_umem_lock.9f
243 file path=usr/share/man/man9f/delay.9f
244 file path=usr/share/man/man9f/devfs_clean.9f
245 file path=usr/share/man/man9f/devmap_default_access.9f
246 file path=usr/share/man/man9f/devmap_devmem_setup.9f
247 file path=usr/share/man/man9f/devmap_do_ctxmgmt.9f
248 file path=usr/share/man/man9f/devmap_set_ctx_timeout.9f
249 file path=usr/share/man/man9f/devmap_setup.9f
250 file path=usr/share/man/man9f/devmap_unload.9f
251 file path=usr/share/man/man9f/disksort.9f
252 file path=usr/share/man/man9f/dblbindack.9f
253 file path=usr/share/man/man9f/drive_getparm.9f
254 file path=usr/share/man/man9f/drive_hztosec.9f
255 file path=usr/share/man/man9f/drive_priv.9f
256 file path=usr/share/man/man9f/drive_usectohz.9f
257 file path=usr/share/man/man9f/drive_usecwait.9f
258 file path=usr/share/man/man9f/dupb.9f
259 file path=usr/share/man/man9f/dupmsg.9f

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260 file path=usr/share/man/man9f/enableook.9f
261 file path=usr/share/man/man9f/esballoc.9f
262 file path=usr/share/man/man9f/esbbcall.9f
263 file path=usr/share/man/man9f/firmload.9f
264 file path=usr/share/man/man9f/flushband.9f
265 file path=usr/share/man/man9f/flushq.9f
266 file path=usr/share/man/man9f/freeb.9f
267 file path=usr/share/man/man9f/freemsg.9f
268 file path=usr/share/man/man9f/freerbuf.9f
269 file path=usr/share/man/man9f/freezeestr.9f
270 file path=usr/share/man/man9f/get_pktpob.9f
271 file path=usr/share/man/man9f/geterror.9f
272 file path=usr/share/man/man9f/gethrtime.9f
273 file path=usr/share/man/man9f/getmajor.9f
274 file path=usr/share/man/man9f/getminor.9f
275 file path=usr/share/man/man9f/getq.9f
276 file path=usr/share/man/man9f/getrbuf.9f
277 file path=usr/share/man/man9f/gld.9f
278 file path=usr/share/man/man9f/hook_alloc.9f
279 file path=usr/share/man/man9f/hook_free.9f
280 file path=usr/share/man/man9f/id32_alloc.9f
281 file path=usr/share/man/man9f/id_space.9f
282 file path=usr/share/man/man9f/inb.9f
283 file path=usr/share/man/man9f/insq.9f
284 file path=usr/share/man/man9f/kiconv.9f
285 file path=usr/share/man/man9f/kiconv_close.9f
286 file path=usr/share/man/man9f/kiconv_open.9f
287 file path=usr/share/man/man9f/kiconvstr.9f
288 file path=usr/share/man/man9f/kmem_alloc.9f
289 file path=usr/share/man/man9f/kmem_cache_create.9f
290 file path=usr/share/man/man9f/kstat_create.9f
291 file path=usr/share/man/man9f/kstat_delete.9f
292 file path=usr/share/man/man9f/kstat_install.9f
293 file path=usr/share/man/man9f/kstat_named_init.9f
294 file path=usr/share/man/man9f/kstat_queue.9f
295 file path=usr/share/man/man9f/ldi_add_event_handler.9f
296 file path=usr/share/man/man9f/ldi_aread.9f
297 file path=usr/share/man/man9f/ldi_devmap.9f
298 file path=usr/share/man/man9f/ldi_dump.9f
299 file path=usr/share/man/man9f/ldi_ev_finalize.9f
300 file path=usr/share/man/man9f/ldi_ev_get_cookie.9f
301 file path=usr/share/man/man9f/ldi_ev_get_type.9f
302 file path=usr/share/man/man9f/ldi_ev_notify.9f
303 file path=usr/share/man/man9f/ldi_ev_register_callbacks.9f
304 file path=usr/share/man/man9f/ldi_ev_remove_callbacks.9f
305 file path=usr/share/man/man9f/ldi_get_dev.9f
306 file path=usr/share/man/man9f/ldi_get_eventcookie.9f
307 file path=usr/share/man/man9f/ldi_get_size.9f
308 file path=usr/share/man/man9f/ldi_ident_from_dev.9f
309 file path=usr/share/man/man9f/ldi_ioctl.9f
310 file path=usr/share/man/man9f/ldi_open_by_dev.9f
311 file path=usr/share/man/man9f/ldi_poll.9f
312 file path=usr/share/man/man9f/ldi_prop_exists.9f
313 file path=usr/share/man/man9f/ldi_prop_get_int.9f
314 file path=usr/share/man/man9f/ldi_prop_lookup_int_array.9f
315 file path=usr/share/man/man9f/ldi_putmsg.9f
316 file path=usr/share/man/man9f/ldi_read.9f
317 file path=usr/share/man/man9f/ldi_remove_event_handler.9f
318 file path=usr/share/man/man9f/ldi_strategy.9f
319 file path=usr/share/man/man9f/linkb.9f
320 file path=usr/share/man/man9f/list_create.9f
321 file path=usr/share/man/man9f/mac_alloc.9f
322 file path=usr/share/man/man9f/mac_hcksum_get.9f
323 file path=usr/share/man/man9f/mac_init_ops.9f
324 file path=usr/share/man/man9f/mac_link_update.9f
325 file path=usr/share/man/man9f/mac_lso_get.9f

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326 file path=usr/share/man/man9f/mac_maxsdu_update.9f
327 file path=usr/share/man/man9f/mac_prop_info.9f
328 file path=usr/share/man/man9f/mac_register.9f
329 file path=usr/share/man/man9f/mac_rx.9f
330 file path=usr/share/man/man9f/mac_transceiver_info.9f
331 file path=usr/share/man/man9f/mac_tx_update.9f
332 file path=usr/share/man/man9f/makecom.9f
333 file path=usr/share/man/man9f/makedevice.9f
334 file path=usr/share/man/man9f/max.9f
335 file path=usr/share/man/man9f/mcopyin.9f
336 file path=usr/share/man/man9f/mcopymsg.9f
337 file path=usr/share/man/man9f/mcopyout.9f
338 file path=usr/share/man/man9f/membar_ops.9f
339 file path=usr/share/man/man9f/memchr.9f
340 file path=usr/share/man/man9f/mirror.9f
341 file path=usr/share/man/man9f/mexchange.9f
342 file path=usr/share/man/man9f/min.9f
343 file path=usr/share/man/man9f/mioc2ack.9f
344 file path=usr/share/man/man9f/miocack.9f
345 file path=usr/share/man/man9f/miocnak.9f
346 file path=usr/share/man/man9f/miopcpullup.9f
347 file path=usr/share/man/man9f/mkiocb.9f
348 file path=usr/share/man/man9f/mod_install.9f
349 file path=usr/share/man/man9f/msgdsize.9f
350 file path=usr/share/man/man9f/msgpullup.9f
351 file path=usr/share/man/man9f/msgsize.9f
352 file path=usr/share/man/man9f/mt-streams.9f
353 file path=usr/share/man/man9f/mutex.9f
354 file path=usr/share/man/man9f/net_event_notify_register.9f
355 file path=usr/share/man/man9f/net_getifname.9f
356 file path=usr/share/man/man9f/net_getifaddr.9f
357 file path=usr/share/man/man9f/net_getmtu.9f
358 file path=usr/share/man/man9f/net_getnetid.9f
359 file path=usr/share/man/man9f/net_getpmtuenabled.9f
360 file path=usr/share/man/man9f/net_hook_register.9f
361 file path=usr/share/man/man9f/net_hook_unregister.9f
362 file path=usr/share/man/man9f/net_inject.9f
363 file path=usr/share/man/man9f/net_inject_alloc.9f
364 file path=usr/share/man/man9f/net_inject_free.9f
365 file path=usr/share/man/man9f/net_instance_alloc.9f
366 file path=usr/share/man/man9f/net_instance_free.9f
367 file path=usr/share/man/man9f/net_instance_notify_register.9f
368 file path=usr/share/man/man9f/net_instance_register.9f
369 file path=usr/share/man/man9f/net_instance_unregister.9f
370 file path=usr/share/man/man9f/net_ispartialchecksum.9f
371 file path=usr/share/man/man9f/net_isvalidchecksum.9f
372 file path=usr/share/man/man9f/net_kstat_create.9f
373 file path=usr/share/man/man9f/net_kstat_delete.9f
374 file path=usr/share/man/man9f/net_lifgetnext.9f
375 file path=usr/share/man/man9f/net_nedidtozonid.9f
376 file path=usr/share/man/man9f/net_phygetnext.9f
377 file path=usr/share/man/man9f/net_physlookup.9f
378 file path=usr/share/man/man9f/net_protocol_lookup.9f
379 file path=usr/share/man/man9f/net_protocol_notify_register.9f
380 file path=usr/share/man/man9f/net_protocol_release.9f
381 file path=usr/share/man/man9f/net_protocol_walk.9f
382 file path=usr/share/man/man9f/net_routeto.9f
383 file path=usr/share/man/man9f/net_zoneidtonetid.9f
384 file path=usr/share/man/man9f/netinfo.9f
385 file path=usr/share/man/man9f/nochpol1.9f
386 file path=usr/share/man/man9f/nodev.9f
387 file path=usr/share/man/man9f/noenable.9f
388 file path=usr/share/man/man9f/nulldev.9f
389 file path=usr/share/man/man9f/nvlist_add_boolean.9f
390 file path=usr/share/man/man9f/nvlist_alloc.9f
391 file path=usr/share/man/man9f/nvlist_lookup_boolean.9f

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392 file path=usr/share/man/man9f/nvlist_lookup_nvpair.9f
393 file path=usr/share/man/man9f/nvlist_next_nvpair.9f
394 file path=usr/share/man/man9f/nvlist_remove.9f
395 file path=usr/share/man/man9f/nvpair_value_byte.9f
396 file path=usr/share/man/man9f/outb.9f
397 file path=usr/share/man/man9f/pci_config_get8.9f
398 file path=usr/share/man/man9f/pci_config_setup.9f
399 file path=usr/share/man/man9f/pci_ereport_setup.9f
400 file path=usr/share/man/man9f/pci_report_pmcap.9f
401 file path=usr/share/man/man9f/pci_save_config_regs.9f
402 file path=usr/share/man/man9f/physio.9f
403 file path=usr/share/man/man9f/pm_busy_component.9f
404 file path=usr/share/man/man9f/pm_power_has_changed.9f
405 file path=usr/share/man/man9f/pm_raise_power.9f
406 file path=usr/share/man/man9f/pm_trans_check.9f
407 file path=usr/share/man/man9f/pollhead_clean.9f
408 file path=usr/share/man/man9f/pollwakeup.9f
409 file path=usr/share/man/man9f/priv_getbyname.9f
410 file path=usr/share/man/man9f/priv_policy.9f
411 file path=usr/share/man/man9f/proc_signal.9f
412 file path=usr/share/man/man9f/ptob.9f
413 file path=usr/share/man/man9f/pullupmsg.9f
414 file path=usr/share/man/man9f/put.9f
415 file path=usr/share/man/man9f/putbq.9f
416 file path=usr/share/man/man9f/putctl.9f
417 file path=usr/share/man/man9f/putctl1.9f
418 file path=usr/share/man/man9f/putnext.9f
419 file path=usr/share/man/man9f/putnextctl.9f
420 file path=usr/share/man/man9f/putnextctl1.9f
421 file path=usr/share/man/man9f/putq.9f
422 file path=usr/share/man/man9f/qassociate.9f
423 file path=usr/share/man/man9f/qbufcall.9f
424 file path=usr/share/man/man9f/genable.9f
425 file path=usr/share/man/man9f/qprocson.9f
426 file path=usr/share/man/man9f/greply.9f
427 file path=usr/share/man/man9f/gsize.9f
428 file path=usr/share/man/man9f/qtimeout.9f
429 file path=usr/share/man/man9f/qunbufcall.9f
430 file path=usr/share/man/man9f/quntimeout.9f
431 file path=usr/share/man/man9f/qwait.9f
432 file path=usr/share/man/man9f/qwriter.9f
433 file path=usr/share/man/man9f/rmalloc.9f
434 file path=usr/share/man/man9f/rmalloc_wait.9f
435 file path=usr/share/man/man9f/rmallocmap.9f
436 file path=usr/share/man/man9f/rmfree.9f
437 file path=usr/share/man/man9f/rmvb.9f
438 file path=usr/share/man/man9f/rmvq.9f
439 file path=usr/share/man/man9f/rwlock.9f
440 file path=usr/share/man/man9f/sas_phymap_create.9f
441 file path=usr/share/man/man9f/sas_phymap_lookup_ua.9f
442 file path=usr/share/man/man9f/scsi_abort.9f
443 file path=usr/share/man/man9f/scsi_address_device.9f
444 file path=usr/share/man/man9f/scsi_alloc_consistent_buf.9f
445 file path=usr/share/man/man9f/scsi_cname.9f
446 file path=usr/share/man/man9f/scsi_destroy_pkt.9f
447 file path=usr/share/man/man9f/scsi_dmaget.9f
448 file path=usr/share/man/man9f/scsi_errmsg.9f
449 file path=usr/share/man/man9f/scsi_ext_sense_fields.9f
450 file path=usr/share/man/man9f/scsi_find_sense_descr.9f
451 file path=usr/share/man/man9f/scsi_free_consistent_buf.9f
452 file path=usr/share/man/man9f/scsi_get_device_type_scsi_options.9f
453 file path=usr/share/man/man9f/scsi_get_device_type_string.9f
454 file path=usr/share/man/man9f/scsi_hba_attach_setup.9f
455 file path=usr/share/man/man9f/scsi_hba_init.9f
456 file path=usr/share/man/man9f/scsi_hba_iport_exist.9f
457 file path=usr/share/man/man9f/scsi_hba_iport_register.9f

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458 file path=usr/share/man/man9f/scsi_hba_iport_unit_address.9f
459 file path=usr/share/man/man9f/scsi_hba_iportmap_create.9f
460 file path=usr/share/man/man9f/scsi_hba_lookup_capstr.9f
461 file path=usr/share/man/man9f/scsi_hba_pkt_alloc.9f
462 file path=usr/share/man/man9f/scsi_hba_pkt_comp.9f
463 file path=usr/share/man/man9f/scsi_hba_probe.9f
464 file path=usr/share/man/man9f/scsi_hba_tgtmap_create.9f
465 file path=usr/share/man/man9f/scsi_hba_tran_alloc.9f
466 file path=usr/share/man/man9f/scsi_ifgetcap.9f
467 file path=usr/share/man/man9f/scsi_init_pkt.9f
468 file path=usr/share/man/man9f/scsi_log.9f
469 file path=usr/share/man/man9f/scsi_pktaalloc.9f
470 file path=usr/share/man/man9f/scsi_poll.9f
471 file path=usr/share/man/man9f/scsi_probe.9f
472 file path=usr/share/man/man9f/scsi_reset.9f
473 file path=usr/share/man/man9f/scsi_reset_notify.9f
474 file path=usr/share/man/man9f/scsi_sense_key.9f
475 file path=usr/share/man/man9f/scsi_setup_cdb.9f
476 file path=usr/share/man/man9f/scsi_slave.9f
477 file path=usr/share/man/man9f/scsi_sync_pkt.9f
478 file path=usr/share/man/man9f/scsi_transport.9f
479 file path=usr/share/man/man9f/scsi_unprobe.9f
480 file path=usr/share/man/man9f/scsi_validate_sense.9f
481 file path=usr/share/man/man9f/scsi_vu_errmsg.9f
482 file path=usr/share/man/man9f/scsi_wninstr_to_wwn.9f
483 file path=usr/share/man/man9f/semaphore.9f
484 file path=usr/share/man/man9f/sprintf.9f
485 file path=usr/share/man/man9f/stoi.9f
486 file path=usr/share/man/man9f/string.9f
487 file path=usr/share/man/man9f/strlog.9f
488 file path=usr/share/man/man9f/strqget.9f
489 file path=usr/share/man/man9f/strqset.9f
490 file path=usr/share/man/man9f/swab.9f
491 file path=usr/share/man/man9f/taskq.9f
492 file path=usr/share/man/man9f/testb.9f
493 file path=usr/share/man/man9f/timeout.9f
494 file path=usr/share/man/man9f/u8_strcmp.9f
495 file path=usr/share/man/man9f/u8_textprep_str.9f
496 file path=usr/share/man/man9f/u8_validate.9f
497 file path=usr/share/man/man9f/uconv_u16tou32.9f
498 file path=usr/share/man/man9f/uionmove.9f
499 file path=usr/share/man/man9f/unbufcall.9f
500 file path=usr/share/man/man9f/unlinkb.9f
501 file path=usr/share/man/man9f/untimeout.9f
502 file path=usr/share/man/man9f/ureadc.9f
503 file path=usr/share/man/man9f/uwritec.9f
504 file path=usr/share/man/man9f/va_arg.9f
505 file path=usr/share/man/man9f/vmem_add.9f
506 file path=usr/share/man/man9f/vmem_alloc.9f
507 file path=usr/share/man/man9f/vmem_contains.9f
508 file path=usr/share/man/man9f/vmem_create.9f
509 file path=usr/share/man/man9f/vmem_walk.9f
510 link path=usr/share/man/man9f/AVL_NEXT.9f target=avl.9f
511 link path=usr/share/man/man9f/AVL_PREV.9f target=avl.9f
512 link path=usr/share/man/man9f/SIZEOF_PTR.9f target=STRUCT_DECL.9f
513 link path=usr/share/man/man9f/SIZEOF_STRUCT.9f target=STRUCT_DECL.9f
514 link path=usr/share/man/man9f/STRUCT_BUF.9f target=STRUCT_DECL.9f
515 link path=usr/share/man/man9f/STRUCT_FADDR.9f target=STRUCT_DECL.9f
516 link path=usr/share/man/man9f/STRUCT_FGET.9f target=STRUCT_DECL.9f
517 link path=usr/share/man/man9f/STRUCT_FGETP.9f target=STRUCT_DECL.9f
518 link path=usr/share/man/man9f/STRUCT_FSET.9f target=STRUCT_DECL.9f
519 link path=usr/share/man/man9f/STRUCT_FSTEP.9f target=STRUCT_DECL.9f
520 link path=usr/share/man/man9f/STRUCT_HANDLE.9f target=STRUCT_DECL.9f
521 link path=usr/share/man/man9f/STRUCT_INIT.9f target=STRUCT_DECL.9f
522 link path=usr/share/man/man9f/STRUCT_SET_HANDLE.9f target=STRUCT_DECL.9f
523 link path=usr/share/man/man9f/STRUCT_SIZE.9f target=STRUCT_DECL.9f

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656 link path=usr/share/man/man9f/cssx_Get32.9f target=csx_Get8.9f
657 link path=usr/share/man/man9f/cssx_Get64.9f target=csx_Get8.9f
658 link path=usr/share/man/man9f/cssx_GetEventMask.9f target=csx_SetEventMask.9f
659 link path=usr/share/man/man9f/cssx_GetNextClient.9f \
660     target=csx_GetfirstClient.9f
661 link path=usr/share/man/man9f/cssx_GetNextTuple.9f target=csx_GetFirstTuple.9f
662 link path=usr/share/man/man9f/cssx_Parse_CISTPL_DEVICE_A.9f \
663     target=csx_Parse_CISTPL_DEVICE.9f
664 link path=usr/share/man/man9f/cssx_Parse_CISTPL_DEVICE_OA.9f \
665     target=csx_Parse_CISTPL_DEVICE.9f
666 link path=usr/share/man/man9f/cssx_Parse_CISTPL_DEVICE_OC.9f \
667     target=csx_Parse_CISTPL_DEVICE.9f
668 link path=usr/share/man/man9f/cssx_Parse_CISTPL_JEDEC_A.9f \
669     target=csx_Parse_CISTPL_JEDEC_C.9f
670 link path=usr/share/man/man9f/cssx_Parse_CISTPL_LONGLINK_C.9f \
671     target=csx_Parse_CISTPL_LONGLINK_A.9f
672 link path=usr/share/man/man9f/cssx_Put16.9f target=csx_Put8.9f
673 link path=usr/share/man/man9f/cssx_Put32.9f target=csx_Put8.9f
674 link path=usr/share/man/man9f/cssx_Put64.9f target=csx_Put8.9f
675 link path=usr/share/man/man9f/cssx_ReleaseIO.9f target=csx_RequestIO.9f
676 link path=usr/share/man/man9f/cssx_ReleaseIRQ.9f target=csx_RequestIRQ.9f
677 link path=usr/share/man/man9f/cssx_ReleaseSocketMask.9f \
678     target=csx_RequestSocketMask.9f
679 link path=usr/share/man/man9f/cssx_ReleaseWindow.9f target=csx_RequestWindow.9f
680 link path=usr/share/man/man9f/cssx_RemoveDeviceNode.9f \
681     target=csx_MakeDeviceNode.9f
682 link path=usr/share/man/man9f/cssx_RepGet16.9f target=csx_RepGet8.9f
683 link path=usr/share/man/man9f/cssx_RepGet32.9f target=csx_RepGet8.9f
684 link path=usr/share/man/man9f/cssx_RepGet64.9f target=csx_RepGet8.9f
685 link path=usr/share/man/man9f/cssx_RepPut16.9f target=csx_RepPut8.9f
686 link path=usr/share/man/man9f/cssx_RepPut32.9f target=csx_RepPut8.9f
687 link path=usr/share/man/man9f/cssx_RepPut64.9f target=csx_RepPut8.9f
688 link path=usr/share/man/man9f/cv_broadcast.9f target=condvar.9f
689 link path=usr/share/man/man9f/cv_destroy.9f target=condvar.9f
690 link path=usr/share/man/man9f/cv_init.9f target=condvar.9f
691 link path=usr/share/man/man9f/cv_reltimedwait.9f target=condvar.9f
692 link path=usr/share/man/man9f/cv_reltimedwait_sig.9f target=condvar.9f
693 link path=usr/share/man/man9f/cv_signal.9f target=condvar.9f
694 link path=usr/share/man/man9f/cv_timedwait.9f target=condvar.9f
695 link path=usr/share/man/man9f/cv_timedwait_sig.9f target=condvar.9f
696 link path=usr/share/man/man9f/cv_wait.9f target=condvar.9f
697 link path=usr/share/man/man9f/cv_waitsig.9f target=condvar.9f
698 link path=usr/share/man/man9f/ddi_bttop.9f target=ddi_bttop.9f
699 link path=usr/share/man/man9f/ddi_cb_unregister.9f target=ddi_cb_register.9f
700 link path=usr/share/man/man9f/ddi_check_dma_handle.9f \
701     target=ddi_check_acc_handle.9f
702 link path=usr/share/man/man9f/ddi_devid_free.9f target=ddi_devid_compare.9f
703 link path=usr/share/man/man9f/ddi_devid_get.9f target=ddi_devid_compare.9f
704 link path=usr/share/man/man9f/ddi_devid_init.9f target=ddi_devid_compare.9f
705 link path=usr/share/man/man9f/ddi_devid_register.9f \
706     target=ddi_devid_compare.9f
707 link path=usr/share/man/man9f/ddi_devid_sizeof.9f target=ddi_devid_compare.9f
708 link path=usr/share/man/man9f/ddi_devid_str_decode.9f \
709     target=ddi_devid_compare.9f
710 link path=usr/share/man/man9f/ddi_devid_str_encode.9f \
711     target=ddi_devid_compare.9f
712 link path=usr/share/man/man9f/ddi_devid_str_free.9f \
713     target=ddi_devid_compare.9f
714 link path=usr/share/man/man9f/ddi_devid_unregister.9f \
715     target=ddi_devid_compare.9f
716 link path=usr/share/man/man9f/ddi_devid_valid.9f target=ddi_devid_compare.9f
717 link path=usr/share/man/man9f/ddi_devmap_segmap.9f target=devmap_setup.9f
718 link path=usr/share/man/man9f/ddi_dmae_lsparty.9f target=ddi_dmae.9f
719 link path=usr/share/man/man9f/ddi_dmae_alloc.9f target=ddi_dmae.9f
720 link path=usr/share/man/man9f/ddi_dmae_disable.9f target=ddi_dmae.9f
721 link path=usr/share/man/man9f/ddi_dmae_enable.9f target=ddi_dmae.9f

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722 link path=usr/share/man/man9f/ddi_dmae_getattr.9f target=ddi_dmae.9f
723 link path=usr/share/man/man9f/ddi_dmae_getcnt.9f target=ddi_dmae.9f
724 link path=usr/share/man/man9f/ddi_dmae_prog.9f target=ddi_dmae.9f
725 link path=usr/share/man/man9f/ddi_dmae_release.9f target=ddi_dmae.9f
726 link path=usr/share/man/man9f/ddi_dmae_stop.9f target=ddi_dmae.9f
727 link path=usr/share/man/man9f/ddi_exit_critical.9f \
728     target=ddi_enter_critical.9f
729 link path=usr/share/man/man9f/ddi_fls.9f target=ddi_ffs.9f
730 link path=usr/share/man/man9f/ddi_fm_capable.9f target=ddi_fm_init.9f
731 link path=usr/share/man/man9f/ddi_fm_dma_err_clear.9f \
732     target=ddi_fm_acc_err_clear.9f
733 link path=usr/share/man/man9f/ddi_fm_dma_err_get.9f \
734     target=ddi_fm_acc_err_get.9f
735 link path=usr/share/man/man9f/ddi_fm_fini.9f target=ddi_fm_init.9f
736 link path=usr/share/man/man9f/ddi_fm_handler_unregister.9f \
737     target=ddi_fm_handler_register.9f
738 link path=usr/share/man/man9f/ddi_get16.9f target=ddi_get8.9f
739 link path=usr/share/man/man9f/ddi_get32.9f target=ddi_get8.9f
740 link path=usr/share/man/man9f/ddi_get64.9f target=ddi_get8.9f
741 link path=usr/share/man/man9f/ddi_get_iblock_cookie.9f target=ddi_add_intr.9f
742 link path=usr/share/man/man9f/ddi_get_lbolt64.9f target=ddi_get_lbolt.9f
743 link path=usr/share/man/man9f/ddi_get_name.9f target=ddi_binding_name.9f
744 link path=usr/share/man/man9f/ddi_get_soft_iblock_cookie.9f \
745     target=ddi_add_softintr.9f
746 link path=usr/share/man/man9f/ddi_get_soft_state.9f target=ddi_soft_state.9f
747 link path=usr/share/man/man9f/ddi_getb.9f target=ddi_get8.9f
748 link path=usr/share/man/man9f/ddi_getl.9f target=ddi_get8.9f
749 link path=usr/share/man/man9f/ddi_getll.9f target=ddi_get8.9f
750 link path=usr/share/man/man9f/ddi_getlongprop.9f target=ddi_prop_op.9f
751 link path=usr/share/man/man9f/ddi_getlongprop_buf.9f target=ddi_prop_op.9f
752 link path=usr/share/man/man9f/ddi_getprop.9f target=ddi_prop_op.9f
753 link path=usr/share/man/man9f/ddi_getproplen.9f target=ddi_prop_op.9f
754 link path=usr/share/man/man9f/ddi_getw.9f target=ddi_get8.9f
755 link path=usr/share/man/man9f/ddi_intr_block_disable.9f \
756     target=ddi_intr_enable.9f
757 link path=usr/share/man/man9f/ddi_intr_block_enable.9f \
758     target=ddi_intr_enable.9f
759 link path=usr/share/man/man9f/ddi_intr_clr_mask.9f target=ddi_intr_set_mask.9f
760 link path=usr/share/man/man9f/ddi_intr_disable.9f target=ddi_intr_enable.9f
761 link path=usr/share/man/man9f/ddi_intr_free.9f target=ddi_intr_alloc.9f
762 link path=usr/share/man/man9f/ddi_intr_get_nintrs.9f \
763     target=ddi_intr_get_nintrs.9f
764 link path=usr/share/man/man9f/ddi_intr_get_softint_pri.9f \
765     target=ddi_intr_add_softint.9f
766 link path=usr/share/man/man9f/ddi_intr_remove_handler.9f \
767     target=ddi_intr_add_handler.9f
768 link path=usr/share/man/man9f/ddi_intr_remove_softint.9f \
769     target=ddi_intr_add_softint.9f
770 link path=usr/share/man/man9f/ddi_intr_set_cap.9f target=ddi_intr_get_cap.9f
771 link path=usr/share/man/man9f/ddi_intr_set_pri.9f target=ddi_intr_get_pri.9f
772 link path=usr/share/man/man9f/ddi_intr_set_softint_pri.9f \
773     target=ddi_intr_add_softint.9f
774 link path=usr/share/man/man9f/ddi_intr_trigger_softint.9f \
775     target=ddi_intr_add_softint.9f
776 link path=usr/share/man/man9f/ddi_io_get16.9f target=ddi_io_get8.9f
777 link path=usr/share/man/man9f/ddi_io_get32.9f target=ddi_io_get8.9f
778 link path=usr/share/man/man9f/ddi_io_getb.9f target=ddi_io_get8.9f
779 link path=usr/share/man/man9f/ddi_io_getl.9f target=ddi_io_get8.9f
780 link path=usr/share/man/man9f/ddi_io_getw.9f target=ddi_io_get8.9f
781 link path=usr/share/man/man9f/ddi_io_put16.9f target=ddi_io_put8.9f
782 link path=usr/share/man/man9f/ddi_io_put32.9f target=ddi_io_put8.9f
783 link path=usr/share/man/man9f/ddi_io_putb.9f target=ddi_io_put8.9f
784 link path=usr/share/man/man9f/ddi_io_putl.9f target=ddi_io_put8.9f
785 link path=usr/share/man/man9f/ddi_io_putw.9f target=ddi_io_put8.9f
786 link path=usr/share/man/man9f/ddi_io_rep_get16.9f target=ddi_io_rep_get8.9f
787 link path=usr/share/man/man9f/ddi_io_rep_get32.9f target=ddi_io_rep_get8.9f

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788 link path=usr/share/man/man9f/ddi_io_rep_getb.9f target=ddi_io_rep_get8.9f
789 link path=usr/share/man/man9f/ddi_io_rep_getl.9f target=ddi_io_rep_get8.9f
790 link path=usr/share/man/man9f/ddi_io_rep_getw.9f target=ddi_io_rep_get8.9f
791 link path=usr/share/man/man9f/ddi_io_rep_put16.9f target=ddi_io_rep_put8.9f
792 link path=usr/share/man/man9f/ddi_io_rep_put32.9f target=ddi_io_rep_put8.9f
793 link path=usr/share/man/man9f/ddi_io_rep_putb.9f target=ddi_io_rep_put8.9f
794 link path=usr/share/man/man9f/ddi_io_rep_putl.9f target=ddi_io_rep_put8.9f
795 link path=usr/share/man/man9f/ddi_io_rep_putw.9f target=ddi_io_rep_put8.9f
796 link path=usr/share/man/man9f/ddi_mem_get16.9f target=ddi_mem_get8.9f
797 link path=usr/share/man/man9f/ddi_mem_get32.9f target=ddi_mem_get8.9f
798 link path=usr/share/man/man9f/ddi_mem_get64.9f target=ddi_mem_get8.9f
799 link path=usr/share/man/man9f/ddi_mem_getb.9f target=ddi_mem_get8.9f
800 link path=usr/share/man/man9f/ddi_mem_getl.9f target=ddi_mem_get8.9f
801 link path=usr/share/man/man9f/ddi_mem_getll.9f target=ddi_mem_get8.9f
802 link path=usr/share/man/man9f/ddi_mem_getw.9f target=ddi_mem_get8.9f
803 link path=usr/share/man/man9f/ddi_mem_put16.9f target=ddi_mem_put8.9f
804 link path=usr/share/man/man9f/ddi_mem_put32.9f target=ddi_mem_put8.9f
805 link path=usr/share/man/man9f/ddi_mem_put64.9f target=ddi_mem_put8.9f
806 link path=usr/share/man/man9f/ddi_mem_putb.9f target=ddi_mem_put8.9f
807 link path=usr/share/man/man9f/ddi_mem_putl.9f target=ddi_mem_put8.9f
808 link path=usr/share/man/man9f/ddi_mem_putll.9f target=ddi_mem_put8.9f
809 link path=usr/share/man/man9f/ddi_mem_putw.9f target=ddi_mem_put8.9f
810 link path=usr/share/man/man9f/ddi_mem_rep_get16.9f target=ddi_mem_rep_get8.9f
811 link path=usr/share/man/man9f/ddi_mem_rep_get32.9f target=ddi_mem_rep_get8.9f
812 link path=usr/share/man/man9f/ddi_mem_rep_get64.9f target=ddi_mem_rep_get8.9f
813 link path=usr/share/man/man9f/ddi_mem_rep_getb.9f target=ddi_mem_rep_get8.9f
814 link path=usr/share/man/man9f/ddi_mem_rep_getl.9f target=ddi_mem_rep_get8.9f
815 link path=usr/share/man/man9f/ddi_mem_rep_getll.9f target=ddi_mem_rep_get8.9f
816 link path=usr/share/man/man9f/ddi_mem_rep_getw.9f target=ddi_mem_rep_get8.9f
817 link path=usr/share/man/man9f/ddi_mem_rep_put16.9f target=ddi_mem_rep_put8.9f
818 link path=usr/share/man/man9f/ddi_mem_rep_put32.9f target=ddi_mem_rep_put8.9f
819 link path=usr/share/man/man9f/ddi_mem_rep_put64.9f target=ddi_mem_rep_put8.9f
820 link path=usr/share/man/man9f/ddi_mem_rep_putb.9f target=ddi_mem_rep_put8.9f
821 link path=usr/share/man/man9f/ddi_mem_rep_putl.9f target=ddi_mem_rep_put8.9f
822 link path=usr/share/man/man9f/ddi_mem_rep_putll.9f target=ddi_mem_rep_put8.9f
823 link path=usr/share/man/man9f/ddi_mem_rep_putw.9f target=ddi_mem_rep_put8.9f
824 link path=usr/share/man/man9f/ddi_modclose.9f target=ddi_modopen.9f
825 link path=usr/share/man/man9f/ddi_modsym.9f target=ddi_modopen.9f
826 link path=usr/share/man/man9f/ddi_peek16.9f target=ddi_peek.9f
827 link path=usr/share/man/man9f/ddi_peek32.9f target=ddi_peek.9f
828 link path=usr/share/man/man9f/ddi_peek64.9f target=ddi_peek.9f
829 link path=usr/share/man/man9f/ddi_peek8.9f target=ddi_peek.9f
830 link path=usr/share/man/man9f/ddi.Peekc.9f target=ddi_peek.9f
831 link path=usr/share/man/man9f/ddi_peekd.9f target=ddi_peek.9f
832 link path=usr/share/man/man9f/ddi_peekl.9f target=ddi_peek.9f
833 link path=usr/share/man/man9f/ddi_peeks.9f target=ddi_peek.9f
834 link path=usr/share/man/man9f/ddi_poke16.9f target=ddi_poke.9f
835 link path=usr/share/man/man9f/ddi_poke32.9f target=ddi_poke.9f
836 link path=usr/share/man/man9f/ddi_poke64.9f target=ddi_poke.9f
837 link path=usr/share/man/man9f/ddi_poke8.9f target=ddi_poke.9f
838 link path=usr/share/man/man9f/ddi_pokec.9f target=ddi_poke.9f
839 link path=usr/share/man/man9f/ddi_poked.9f target=ddi_poke.9f
840 link path=usr/share/man/man9f/ddi_pokel.9f target=ddi_poke.9f
841 link path=usr/share/man/man9f/ddi_pokes.9f target=ddi_poke.9f
842 link path=usr/share/man/man9f/ddi_prop_free.9f target=ddi_prop_lookup.9f
843 link path=usr/share/man/man9f/ddi_prop_get_int64.9f target=ddi_prop_get_int.9f
844 link path=usr/share/man/man9f/ddi_prop_lookup_byte_array.9f \
845 target=ddi_prop_lookup.9f
846 link path=usr/share/man/man9f/ddi_prop_lookup_int64_array.9f \
847 target=ddi_prop_lookup.9f
848 link path=usr/share/man/man9f/ddi_prop_lookup_int_array.9f \
849 target=ddi_prop_lookup.9f
850 link path=usr/share/man/man9f/ddi_prop_lookup_string.9f \
851 target=ddi_prop_lookup.9f
852 link path=usr/share/man/man9f/ddi_prop_lookup_string_array.9f \
853 target=ddi_prop_lookup.9f

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854 link path=usr/share/man/man9f/ddi_prop_modify.9f target=ddi_prop_create.9f
855 link path=usr/share/man/man9f/ddi_prop_remove.9f target=ddi_prop_create.9f
856 link path=usr/share/man/man9f/ddi_prop_remove_all.9f target=ddi_prop_create.9f
857 link path=usr/share/man/man9f/ddi_prop_undefine.9f target=ddi_prop_create.9f
858 link path=usr/share/man/man9f/ddi_prop_update_byte_array.9f \
859 target=ddi_prop_update.9f
860 link path=usr/share/man/man9f/ddi_prop_update_int.9f target=ddi_prop_update.9f
861 link path=usr/share/man/man9f/ddi_prop_update_int64.9f \
862 target=ddi_prop_update.9f
863 link path=usr/share/man/man9f/ddi_prop_update_int64_array.9f \
864 target=ddi_prop_update.9f
865 link path=usr/share/man/man9f/ddi_prop_update_int_array.9f \
866 target=ddi_prop_update.9f
867 link path=usr/share/man/man9f/ddi_prop_update_string.9f \
868 target=ddi_prop_update.9f
869 link path=usr/share/man/man9f/ddi_prop_update_string_array.9f \
870 target=ddi_prop_update.9f
871 link path=usr/share/man/man9f/ddi_ptob.9f target=ddi_btob.9f
872 link path=usr/share/man/man9f/ddi_put16.9f target=ddi_put8.9f
873 link path=usr/share/man/man9f/ddi_put32.9f target=ddi_put8.9f
874 link path=usr/share/man/man9f/ddi_put64.9f target=ddi_put8.9f
875 link path=usr/share/man/man9f/ddi_putb.9f target=ddi_put8.9f
876 link path=usr/share/man/man9f/ddi_putl.9f target=ddi_put8.9f
877 link path=usr/share/man/man9f/ddi_putll.9f target=ddi_put8.9f
878 link path=usr/share/man/man9f/ddi_putw.9f target=ddi_put8.9f
879 link path=usr/share/man/man9f/ddi_remove_intr.9f target=ddi_add_intr.9f
880 link path=usr/share/man/man9f/ddi_remove_softintr.9f \
881 target=ddi_add_softintr.9f
882 link path=usr/share/man/man9f/ddi_rep_get16.9f target=ddi_rep_get8.9f
883 link path=usr/share/man/man9f/ddi_rep_get32.9f target=ddi_rep_get8.9f
884 link path=usr/share/man/man9f/ddi_rep_get64.9f target=ddi_rep_get8.9f
885 link path=usr/share/man/man9f/ddi_rep_getb.9f target=ddi_rep_get8.9f
886 link path=usr/share/man/man9f/ddi_rep_getl.9f target=ddi_rep_get8.9f
887 link path=usr/share/man/man9f/ddi_rep_getll.9f target=ddi_rep_get8.9f
888 link path=usr/share/man/man9f/ddi_rep_getw.9f target=ddi_rep_get8.9f
889 link path=usr/share/man/man9f/ddi_rep_put16.9f target=ddi_rep_put8.9f
890 link path=usr/share/man/man9f/ddi_rep_put32.9f target=ddi_rep_put8.9f
891 link path=usr/share/man/man9f/ddi_rep_put64.9f target=ddi_rep_put8.9f
892 link path=usr/share/man/man9f/ddi_rep_putb.9f target=ddi_rep_put8.9f
893 link path=usr/share/man/man9f/ddi_rep_putl.9f target=ddi_rep_put8.9f
894 link path=usr/share/man/man9f/ddi_rep_putll.9f target=ddi_rep_put8.9f
895 link path=usr/share/man/man9f/ddi_rep_putw.9f target=ddi_rep_put8.9f
896 link path=usr/share/man/man9f/ddi_segmap_setup.9f target=ddi_segmap.9f
897 link path=usr/share/man/man9f/ddi_set_driver_private.9f \
898 target=ddi_get_driver_private.9f
899 link path=usr/share/man/man9f/ddi_soft_state_fini.9f target=ddi_soft_state.9f
900 link path=usr/share/man/man9f/ddi_soft_state_free.9f target=ddi_soft_state.9f
901 link path=usr/share/man/man9f/ddi_soft_state_init.9f target=ddi_soft_state.9f
902 link path=usr/share/man/man9f/ddi_soft_state_zalloc.9f \
903 target=ddi_soft_state.9f
904 link path=usr/share/man/man9f/ddi_strdup.9f target=string.9f
905 link path=usr/share/man/man9f/ddi_strtoll.9f target=ddi strtoll.9f
906 link path=usr/share/man/man9f/ddi_taskq_create.9f target=taskq.9f
907 link path=usr/share/man/man9f/ddi_taskq_destroy.9f target=taskq.9f
908 link path=usr/share/man/man9f/ddi_taskq_dispatch.9f target=taskq.9f
909 link path=usr/share/man/man9f/ddi_taskq_resume.9f target=taskq.9f
910 link path=usr/share/man/man9f/ddi_taskq_suspend.9f target=taskq.9f
911 link path=usr/share/man/man9f/ddi_taskq_wait.9f target=taskq.9f
912 link path=usr/share/man/man9f/ddi_trigger_softintr.9f \
913 target=ddi_add_softintr.9f
914 link path=usr/share/man/man9f/ddi_umem_free.9f target=ddi_umem_alloc.9f
915 link path=usr/share/man/man9f/ddi_umem_unlock.9f target=ddi_umem_lock.9f
916 link path=usr/share/man/man9f/ddi_unmap_regs.9f target=ddi_map_regs.9f
917 link path=usr/share/man/man9f/desalloc.9f target=desalloc.9f
918 link path=usr/share/man/man9f/dev_err.9f target=cmn_err.9f
919 link path=usr/share/man/man9f/devmap_load.9f target=devmap_unload.9f

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```

920 link path=usr/share/man/man9f/devmap_umem_setup.9f \
921     target=devmap_devmem_setup.9f
922 link path=usr/share/man/man9f/dlerrorack.9f target=dbldbindack.9f
923 link path=usr/share/man/man9f/dlokack.9f target=dbldbindack.9f
924 link path=usr/share/man/man9f/dlphysaddrack.9f target=dbldbindack.9f
925 link path=usr/share/man/man9f/dluderrorind.9f target=dbldbindack.9f
926 link path=usr/share/man/man9f/firmware_close.9f target=firmload.9f
927 link path=usr/share/man/man9f/firmware_free.9f target=firmload.9f
928 link path=usr/share/man/man9f/firmware_get_size.9f target=firmload.9f
929 link path=usr/share/man/man9f/firmware_malloc.9f target=firmload.9f
930 link path=usr/share/man/man9f/firmware_open.9f target=firmload.9f
931 link path=usr/share/man/man9f/firmware_read.9f target=firmload.9f
932 link path=usr/share/man/man9f/free_pktiopb.9f target=get_pktiopb.9f
933 link path=usr/share/man/man9f/gld_int.9f target=gld.9f
934 link path=usr/share/man/man9f/gld_mac_alloc.9f target=gld.9f
935 link path=usr/share/man/man9f/gld_mac_free.9f target=gld.9f
936 link path=usr/share/man/man9f/gld_recv.9f target=gld.9f
937 link path=usr/share/man/man9f/gld_register.9f target=gld.9f
938 link path=usr/share/man/man9f/gld_sched.9f target=gld.9f
939 link path=usr/share/man/man9f/gld_unregister.9f target=gld.9f
940 link path=usr/share/man/man9f/id32_free.9f target=id32_alloc.9f
941 link path=usr/share/man/man9f/id32_lookup.9f target=id32_alloc.9f
942 link path=usr/share/man/man9f/id_alloc.9f target=id_space.9f
943 link path=usr/share/man/man9f/id_alloc_nosleep.9f target=id_space.9f
944 link path=usr/share/man/man9f/id_alloc_specific_nosleep.9f target=id_space.9f
945 link path=usr/share/man/man9f/id_allocff.9f target=id_space.9f
946 link path=usr/share/man/man9f/id_allocff_nosleep.9f target=id_space.9f
947 link path=usr/share/man/man9f/id_free.9f target=id_space.9f
948 link path=usr/share/man/man9f/id_space_create.9f target=id_space.9f
949 link path=usr/share/man/man9f/id_space_destroy.9f target=id_space.9f
950 link path=usr/share/man/man9f/id_space_extend.9f target=id_space.9f
951 link path=usr/share/man/man9f/inl.9f target=inb.9f
952 link path=usr/share/man/man9f/intro.9f target=Intro.9f
953 link path=usr/share/man/man9f/inw.9f target=inb.9f
954 link path=usr/share/man/man9f/kmem_cache_alloc.9f target=kmem_cache_create.9f
955 link path=usr/share/man/man9f/kmem_cache_destroy.9f \
956     target=kmem_cache_create.9f
957 link path=usr/share/man/man9f/kmem_cache_free.9f target=kmem_cache_create.9f
958 link path=usr/share/man/man9f/kmem_cache_set_move.9f \
959     target=kmem_cache_create.9f
960 link path=usr/share/man/man9f/kmem_free.9f target=kmem_alloc.9f
961 link path=usr/share/man/man9f/kmem_zalloc.9f target=kmem_alloc.9f
962 link path=usr/share/man/man9f/kstat_named_setstr.9f target=kstat_named_init.9f
963 link path=usr/share/man/man9f/kstat_rung_back_to_waitq.9f \
964     target=kstat_queue.9f
965 link path=usr/share/man/man9f/kstat_rung_enter.9f target=kstat_queue.9f
966 link path=usr/share/man/man9f/kstat_rung_exit.9f target=kstat_queue.9f
967 link path=usr/share/man/man9f/kstat_waitq_enter.9f target=kstat_queue.9f
968 link path=usr/share/man/man9f/kstat_waitq_exit.9f target=kstat_queue.9f
969 link path=usr/share/man/man9f/kstat_waitq_to_rung.9f target=kstat_queue.9f
970 link path=usr/share/man/man9f/ldi_awrite.9f target=ldi_aread.9f
971 link path=usr/share/man/man9f/ldi_close.9f target=ldi_open_by_dev.9f
972 link path=usr/share/man/man9f/ldi_get_devid.9f target=ldi_get_dev.9f
973 link path=usr/share/man/man9f/ldi_get_minor_name.9f target=ldi_get_dev.9f
974 link path=usr/share/man/man9f/ldi_get_otyp.9f target=ldi_get_dev.9f
975 link path=usr/share/man/man9f/ldi_getmsg.9f target=ldi_putmsg.9f
976 link path=usr/share/man/man9f/ldi_ident_from_dip.9f \
977     target=ldi_ident_from_dev.9f
978 link path=usr/share/man/man9f/ldi_ident_from_stream.9f \
979     target=ldi_ident_from_dev.9f
980 link path=usr/share/man/man9f/ldi_ident_release.9f \
981     target=ldi_ident_from_dev.9f
982 link path=usr/share/man/man9f/ldi_open_by_devid.9f target=ldi_open_by_dev.9f
983 link path=usr/share/man/man9f/ldi_open_by_name.9f target=ldi_open_by_dev.9f
984 link path=usr/share/man/man9f/ldi_prop_get_int64.9f target=ldi_prop_get_int.9f
985 link path=usr/share/man/man9f/ldi_prop_lookup_byte_array.9f \

```

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986     target=ldi_prop_lookup_int_array.9f
987 link path=usr/share/man/man9f/ldi_prop_lookup_int64_array.9f \
988     target=ldi_prop_lookup_int_array.9f
989 link path=usr/share/man/man9f/ldi_prop_lookup_string.9f \
990     target=ldi_prop_lookup_int_array.9f
991 link path=usr/share/man/man9f/ldi_prop_lookup_string_array.9f \
992     target=ldi_prop_lookup_int_array.9f
993 link path=usr/share/man/man9f/ldi_write.9f target=ldi_read.9f
994 link path=usr/share/man/man9f/list_destroy.9f target=list_create.9f
995 link path=usr/share/man/man9f/list_head.9f target=list_create.9f
996 link path=usr/share/man/man9f/list_insert_after.9f target=list_create.9f
997 link path=usr/share/man/man9f/list_insert_before.9f target=list_create.9f
998 link path=usr/share/man/man9f/list_insert_head.9f target=list_create.9f
999 link path=usr/share/man/man9f/list_insert_tail.9f target=list_create.9f
1000 link path=usr/share/man/man9f/list_is_empty.9f target=list_create.9f
1001 link path=usr/share/man/man9f/list_link_active.9f target=list_create.9f
1002 link path=usr/share/man/man9f/list_link_init.9f target=list_create.9f
1003 link path=usr/share/man/man9f/list_link_replace.9f target=list_create.9f
1004 link path=usr/share/man/man9f/list_move_tail.9f target=list_create.9f
1005 link path=usr/share/man/man9f/list_next.9f target=list_create.9f
1006 link path=usr/share/man/man9f/list_prev.9f target=list_create.9f
1007 link path=usr/share/man/man9f/list_remove.9f target=list_create.9f
1008 link path=usr/share/man/man9f/list_remove_head.9f target=list_create.9f
1009 link path=usr/share/man/man9f/list_remove_tail.9f target=list_create.9f
1010 link path=usr/share/man/man9f/list_tail.9f target=list_create.9f
1011 link path=usr/share/man/man9f/mac_fini_ops.9f target=mac_init_ops.9f
1012 link path=usr/share/man/man9f/mac_free.9f target=mac_alloc.9f
1013 link path=usr/share/man/man9f/mac_hcksum_set.9f target=mac_hcksum_get.9f
1014 link path=usr/share/man/man9f/mac_prop_info_set_default_link_flowctrl.9f \
1015     target=mac_prop_info.9f
1016 link path=usr/share/man/man9f/mac_prop_info_set_default_str.9f \
1017     target=mac_prop_info.9f
1018 link path=usr/share/man/man9f/mac_prop_info_set_default_uint32.9f \
1019     target=mac_prop_info.9f
1020 link path=usr/share/man/man9f/mac_prop_info_set_default_uint64.9f \
1021     target=mac_prop_info.9f
1022 link path=usr/share/man/man9f/mac_prop_info_set_default_uint8.9f \
1023     target=mac_prop_info.9f
1024 link path=usr/share/man/man9f/mac_prop_info_set_perm.9f \
1025     target=mac_prop_info.9f
1026 link path=usr/share/man/man9f/mac_prop_info_set_range_uint32.9f \
1027     target=mac_prop_info.9f
1028 link path=usr/share/man/man9f/mac_transceiver_info_set_present.9f \
1029     target=mac_transceiver_info.9f
1030 link path=usr/share/man/man9f/mac_transceiver_info_set_usable.9f \
1031     target=mac_transceiver_info.9f
1032 link path=usr/share/man/man9f/mac_unregister.9f target=mac_register.9f
1033 link path=usr/share/man/man9f/makecom_g0.9f target=makecom.9f
1034 link path=usr/share/man/man9f/makecom_g0_s.9f target=makecom.9f
1035 link path=usr/share/man/man9f/makecom_g1.9f target=makecom.9f
1036 link path=usr/share/man/man9f/makecom_g5.9f target=makecom.9f
1037 link path=usr/share/man/man9f/membar_consumer.9f target=membar_ops.9f
1038 link path=usr/share/man/man9f/membar_enter.9f target=membar_ops.9f
1039 link path=usr/share/man/man9f/membar_exit.9f target=membar_ops.9f
1040 link path=usr/share/man/man9f/membar_producer.9f target=membar_ops.9f
1041 link path=usr/share/man/man9f/memcmp.9f target=memchr.9f
1042 link path=usr/share/man/man9f/memcpy.9f target=memchr.9f
1043 link path=usr/share/man/man9f/memmove.9f target=memchr.9f
1044 link path=usr/share/man/man9f/memset.9f target=memchr.9f
1045 link path=usr/share/man/man9f/minphys.9f target=physio.9f
1046 link path=usr/share/man/man9f/mod_info.9f target=mod_install.9f
1047 link path=usr/share/man/man9f/mod_modname.9f target=mod_install.9f
1048 link path=usr/share/man/man9f/mod_remove.9f target=mod_install.9f
1049 link path=usr/share/man/man9f/mutex_destroy.9f target=mutex.9f
1050 link path=usr/share/man/man9f/mutex_enter.9f target=mutex.9f
1051 link path=usr/share/man/man9f/mutex_exit.9f target=mutex.9f

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1052 link path=usr/share/man/man9f/mutex_init.9f target(mutex.9f
1053 link path=usr/share/man/man9f/mutex_owned.9f target(mutex.9f
1054 link path=usr/share/man/man9f/mutex_tryenter.9f target(mutex.9f
1055 link path=usr/share/man/man9f/net_event_notify_unregister.9f \
1056     target(net_event_notify_register.9f
1057 link path=usr/share/man/man9f/net_instance_notify_unregister.9f \
1058     target(net_instance_notify_register.9f
1059 link path=usr/share/man/man9f/net_instance_protocol_unregister.9f \
1060     target(net_protocol_notify_register.9f
1061 link path=usr/share/man/man9f/numtos.9f target(stoi.9f
1062 link path=usr/share/man/man9f/nv_alloc_fini.9f target=nvlist_alloc.9f
1063 link path=usr/share/man/man9f/nv_alloc_init.9f target=nvlist_alloc.9f
1064 link path=usr/share/man/man9f/nvlist_add_boolean_array.9f \
1065     target=nvlist_add_boolean.9f
1066 link path=usr/share/man/man9f/nvlist_add_boolean_value.9f \
1067     target=nvlist_add_boolean.9f
1068 link path=usr/share/man/man9f/nvlist_add_byte.9f target=nvlist_add_boolean.9f
1069 link path=usr/share/man/man9f/nvlist_add_byte_array.9f \
1070     target=nvlist_add_boolean.9f
1071 link path=usr/share/man/man9f/nvlist_add_int16.9f target=nvlist_add_boolean.9f
1072 link path=usr/share/man/man9f/nvlist_add_int16_array.9f \
1073     target=nvlist_add_boolean.9f
1074 link path=usr/share/man/man9f/nvlist_add_int32.9f target=nvlist_add_boolean.9f
1075 link path=usr/share/man/man9f/nvlist_add_int32_array.9f \
1076     target=nvlist_add_boolean.9f
1077 link path=usr/share/man/man9f/nvlist_add_int64.9f target=nvlist_add_boolean.9f
1078 link path=usr/share/man/man9f/nvlist_add_int64_array.9f \
1079     target=nvlist_add_boolean.9f
1080 link path=usr/share/man/man9f/nvlist_add_int8.9f target=nvlist_add_boolean.9f
1081 link path=usr/share/man/man9f/nvlist_add_int8_array.9f \
1082     target=nvlist_add_boolean.9f
1083 link path=usr/share/man/man9f/nvlist_add_nvlist.9f \
1084     target=nvlist_add_boolean.9f
1085 link path=usr/share/man/man9f/nvlist_add_nvlist_array.9f \
1086     target=nvlist_add_boolean.9f
1087 link path=usr/share/man/man9f/nvlist_add_nvpair.9f \
1088     target=nvlist_add_boolean.9f
1089 link path=usr/share/man/man9f/nvlist_add_string.9f \
1090     target=nvlist_add_boolean.9f
1091 link path=usr/share/man/man9f/nvlist_add_string_array.9f \
1092     target=nvlist_add_boolean.9f
1093 link path=usr/share/man/man9f/nvlist_add_uint16.9f \
1094     target=nvlist_add_boolean.9f
1095 link path=usr/share/man/man9f/nvlist_add_uint16_array.9f \
1096     target=nvlist_add_boolean.9f
1097 link path=usr/share/man/man9f/nvlist_add_uint32.9f \
1098     target=nvlist_add_boolean.9f
1099 link path=usr/share/man/man9f/nvlist_add_uint32_array.9f \
1100     target=nvlist_add_boolean.9f
1101 link path=usr/share/man/man9f/nvlist_add_uint64.9f \
1102     target=nvlist_add_boolean.9f
1103 link path=usr/share/man/man9f/nvlist_add_uint64_array.9f \
1104     target=nvlist_add_boolean.9f
1105 link path=usr/share/man/man9f/nvlist_add_uint8.9f target=nvlist_add_boolean.9f
1106 link path=usr/share/man/man9f/nvlist_add_uint8_array.9f \
1107     target=nvlist_add_boolean.9f
1108 link path=usr/share/man/man9f/nvlist_dup.9f target=nvlist_alloc.9f
1109 link path=usr/share/man/man9f/nvlist_exists.9f target=nvlist_lookup_nvpair.9f
1110 link path=usr/share/man/man9f/nvlist_free.9f target=nvlist_alloc.9f
1111 link path=usr/share/man/man9f/nvlist_lookup_boolean_array.9f \
1112     target=nvlist_lookup_boolean.9f
1113 link path=usr/share/man/man9f/nvlist_lookup_boolean_value.9f \
1114     target=nvlist_lookup_boolean.9f
1115 link path=usr/share/man/man9f/nvlist_lookup_byte.9f \
1116     target=nvlist_lookup_boolean.9f
1117 link path=usr/share/man/man9f/nvlist_lookup_byte_array.9f \

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1118     target=nvlist_lookup_boolean.9f
1119 link path=usr/share/man/man9f/nvlist_lookup_int16.9f \
1120     target=nvlist_lookup_boolean.9f
1121 link path=usr/share/man/man9f/nvlist_lookup_int16_array.9f \
1122     target=nvlist_lookup_boolean.9f
1123 link path=usr/share/man/man9f/nvlist_lookup_int32.9f \
1124     target=nvlist_lookup_boolean.9f
1125 link path=usr/share/man/man9f/nvlist_lookup_int32_array.9f \
1126     target=nvlist_lookup_boolean.9f
1127 link path=usr/share/man/man9f/nvlist_lookup_int64.9f \
1128     target=nvlist_lookup_boolean.9f
1129 link path=usr/share/man/man9f/nvlist_lookup_int64_array.9f \
1130     target=nvlist_lookup_boolean.9f
1131 link path=usr/share/man/man9f/nvlist_lookup_int8.9f \
1132     target=nvlist_lookup_boolean.9f
1133 link path=usr/share/man/man9f/nvlist_lookup_int8_array.9f \
1134     target=nvlist_lookup_boolean.9f
1135 link path=usr/share/man/man9f/nvlist_lookup_nvlist.9f \
1136     target=nvlist_lookup_boolean.9f
1137 link path=usr/share/man/man9f/nvlist_lookup_nvlist_array.9f \
1138     target=nvlist_lookup_boolean.9f
1139 link path=usr/share/man/man9f/nvlist_lookup_pairs.9f \
1140     target=nvlist_lookup_boolean.9f
1141 link path=usr/share/man/man9f/nvlist_lookup_string.9f \
1142     target=nvlist_lookup_boolean.9f
1143 link path=usr/share/man/man9f/nvlist_lookup_string_array.9f \
1144     target=nvlist_lookup_boolean.9f
1145 link path=usr/share/man/man9f/nvlist_lookup_uint16.9f \
1146     target=nvlist_lookup_boolean.9f
1147 link path=usr/share/man/man9f/nvlist_lookup_uint16_array.9f \
1148     target=nvlist_lookup_boolean.9f
1149 link path=usr/share/man/man9f/nvlist_lookup_uint32.9f \
1150     target=nvlist_lookup_boolean.9f
1151 link path=usr/share/man/man9f/nvlist_lookup_uint32_array.9f \
1152     target=nvlist_lookup_boolean.9f
1153 link path=usr/share/man/man9f/nvlist_lookup_uint64.9f \
1154     target=nvlist_lookup_boolean.9f
1155 link path=usr/share/man/man9f/nvlist_lookup_uint64_array.9f \
1156     target=nvlist_lookup_boolean.9f
1157 link path=usr/share/man/man9f/nvlist_lookup_uint8.9f \
1158     target=nvlist_lookup_boolean.9f
1159 link path=usr/share/man/man9f/nvlist_lookup_uint8_array.9f \
1160     target=nvlist_lookup_boolean.9f
1161 link path=usr/share/man/man9f/nvlist_merge.9f target=nvlist_alloc.9f
1162 link path=usr/share/man/man9f/nvlist_pack.9f target=nvlist_alloc.9f
1163 link path=usr/share/man/man9f/nvlist_remove_all.9f target=nvlist_remove.9f
1164 link path=usr/share/man/man9f/nvlist_size.9f target=nvlist_alloc.9f
1165 link path=usr/share/man/man9f/nvlist_t.9f target=nvlist_add_boolean.9f
1166 link path=usr/share/man/man9f/nvlist_unpack.9f target=nvlist_alloc.9f
1167 link path=usr/share/man/man9f/nvlist_xalloc.9f target=nvlist_alloc.9f
1168 link path=usr/share/man/man9f/nvlist_xdуп.9f target=nvlist_alloc.9f
1169 link path=usr/share/man/man9f/nvlist_xpack.9f target=nvlist_alloc.9f
1170 link path=usr/share/man/man9f/nvlist_xunpack.9f target=nvlist_alloc.9f
1171 link path=usr/share/man/man9f/nvpair_name.9f target=nvlist_next_nvpair.9f
1172 link path=usr/share/man/man9f/nvpair_type.9f target=nvlist_next_nvpair.9f
1173 link path=usr/share/man/man9f/nvpair_value_boolean_array.9f \
1174     target=nvpair_value_byte.9f
1175 link path=usr/share/man/man9f/nvpair_value_byte_array.9f \
1176     target=nvpair_value_byte.9f
1177 link path=usr/share/man/man9f/nvpair_value_int16.9f \
1178     target=nvpair_value_byte.9f
1179 link path=usr/share/man/man9f/nvpair_value_int16_array.9f \
1180     target=nvpair_value_byte.9f
1181 link path=usr/share/man/man9f/nvpair_value_int32.9f \
1182     target=nvpair_value_byte.9f
1183 link path=usr/share/man/man9f/nvpair_value_int32_array.9f \

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1184     target=nvpair_value_byte.9f
1185     link path=usr/share/man/man9f/nvpair_value_int64.9f \
1186         target=nvpair_value_byte.9f
1187     link path=usr/share/man/man9f/nvpair_value_int64_array.9f \
1188         target=nvpair_value_byte.9f
1189     link path=usr/share/man/man9f/nvpair_value_int8.9f target=nvpair_value_byte.9f
1190     link path=usr/share/man/man9f/nvpair_value_int8_array.9f \
1191         target=nvpair_value_byte.9f
1192     link path=usr/share/man/man9f/nvpair_value_nvlist.9f \
1193         target=nvpair_value_byte.9f
1194     link path=usr/share/man/man9f/nvpair_value_nvlist_array.9f \
1195         target=nvpair_value_byte.9f
1196     link path=usr/share/man/man9f/nvpair_value_string.9f \
1197         target=nvpair_value_byte.9f
1198     link path=usr/share/man/man9f/nvpair_value_string_array.9f \
1199         target=nvpair_value_byte.9f
1200     link path=usr/share/man/man9f/nvpair_value_uint16.9f \
1201         target=nvpair_value_byte.9f
1202     link path=usr/share/man/man9f/nvpair_value_uint16_array.9f \
1203         target=nvpair_value_byte.9f
1204     link path=usr/share/man/man9f/nvpair_value_uint32.9f \
1205         target=nvpair_value_byte.9f
1206     link path=usr/share/man/man9f/nvpair_value_uint32_array.9f \
1207         target=nvpair_value_byte.9f
1208     link path=usr/share/man/man9f/nvpair_value_uint64.9f \
1209         target=nvpair_value_byte.9f
1210     link path=usr/share/man/man9f/nvpair_value_uint64_array.9f \
1211         target=nvpair_value_byte.9f
1212     link path=usr/share/man/man9f/nvpair_value_uint8.9f \
1213         target=nvpair_value_byte.9f
1214     link path=usr/share/man/man9f/nvpair_value_uint8_array.9f \
1215         target=nvpair_value_byte.9f
1216     link path=usr/share/man/man9f/otherq.9f target=OTHERQ.9f
1217     link path=usr/share/man/man9f/outl.9f target=outb.9f
1218     link path=usr/share/man/man9f/outw.9f target=outb.9f
1219     link path=usr/share/man/man9f/pci_config_get16.9f target=pci_config_get8.9f
1220     link path=usr/share/man/man9f/pci_config_get32.9f target=pci_config_get8.9f
1221     link path=usr/share/man/man9f/pci_config_get64.9f target=pci_config_get8.9f
1222     link path=usr/share/man/man9f/pci_config_getb.9f target=pci_config_get8.9f
1223     link path=usr/share/man/man9f/pci_config_getl.9f target=pci_config_get8.9f
1224     link path=usr/share/man/man9f/pci_config_getll.9f target=pci_config_get8.9f
1225     link path=usr/share/man/man9f/pci_config_getw.9f target=pci_config_get8.9f
1226     link path=usr/share/man/man9f/pci_config_put16.9f target=pci_config_get8.9f
1227     link path=usr/share/man/man9f/pci_config_put32.9f target=pci_config_get8.9f
1228     link path=usr/share/man/man9f/pci_config_put64.9f target=pci_config_get8.9f
1229     link path=usr/share/man/man9f/pci_config_put8.9f target=pci_config_get8.9f
1230     link path=usr/share/man/man9f/pci_config_putb.9f target=pci_config_get8.9f
1231     link path=usr/share/man/man9f/pci_config_putl.9f target=pci_config_get8.9f
1232     link path=usr/share/man/man9f/pci_config_putll.9f target=pci_config_get8.9f
1233     link path=usr/share/man/man9f/pci_config_putw.9f target=pci_config_get8.9f
1234     link path=usr/share/man/man9f/pci_config_teardown.9f \
1235         target=pci_config_setup.9f
1236     link path=usr/share/man/man9f/pci_ereport_post.9f target=pci_ereport_setup.9f
1237     link path=usr/share/man/man9f/pci_ereport_teardown.9f \
1238         target=pci_ereport_setup.9f
1239     link path=usr/share/man/man9f/pci_restore_config_regs.9f \
1240         target=pci_save_config_regs.9f
1241     link path=usr/share/man/man9f/pm_idle_component.9f target=pm_busy_component.9f
1242     link path=usr/share/man/man9f/pm_lower_power.9f target=pm_raise_power.9f
1243     link path=usr/share/man/man9f/priv_policy_choice.9f target=priv_policy.9f
1244     link path=usr/share/man/man9f/priv_policy_only.9f target=priv_policy.9f
1245     link path=usr/share/man/man9f/proc_ref.9f target=proc_signal.9f
1246     link path=usr/share/man/man9f/proc_unref.9f target=proc_signal.9f
1247     link path=usr/share/man/man9f/qprocsoft.9f target=qprocson.9f
1248     link path=usr/share/man/man9f/qwait_sig.9f target=qwait.9f
1249     link path=usr/share/man/man9f/rd.9f target=RD.9f

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1250     link path=usr/share/man/man9f/repinsb.9f target=inp.9f
1251     link path=usr/share/man/man9f/repinsd.9f target=inp.9f
1252     link path=usr/share/man/man9f/repinsw.9f target=inp.9f
1253     link path=usr/share/man/man9f/repoutsb.9f target=outh.9f
1254     link path=usr/share/man/man9f/repoutsd.9f target=outh.9f
1255     link path=usr/share/man/man9f/repoutsw.9f target=outh.9f
1256     link path=usr/share/man/man9f/rmallocmap_wait.9f target=rmallocmap.9f
1257     link path=usr/share/man/man9f/rmfreemap.9f target=rmallocmap.9f
1258     link path=usr/share/man/man9f/rw_destroy.9f target=rwlock.9f
1259     link path=usr/share/man/man9f/rw_downgrade.9f target=rwlock.9f
1260     link path=usr/share/man/man9f/rw_enter.9f target=rwlock.9f
1261     link path=usr/share/man/man9f/rw_exit.9f target=rwlock.9f
1262     link path=usr/share/man/man9f/rw_init.9f target=rwlock.9f
1263     link path=usr/share/man/man9f/rw_read_locked.9f target=rwlock.9f
1264     link path=usr/share/man/man9f/rw_tryenter.9f target=rwlock.9f
1265     link path=usr/share/man/man9f/rw_tryupgrade.9f target=rwlock.9f
1266     link path=usr/share/man/man9f/samestr.9f target=SAMESTR.9f
1267     link path=usr/share/man/man9f/sas_phymap_destroy.9f \
1268         target=sas_phymap_create.9f
1269     link path=usr/share/man/man9f/sas_phymap_lookup_uapriv.9f \
1270         target=sas_phymap_lookup_ua.9f
1271     link path=usr/share/man/man9f/sas_phymap_phy2ua.9f \
1272         target=sas_phymap_lookup_ua.9f
1273     link path=usr/share/man/man9f/sas_phymap_phy_add.9f \
1274         target=sas_phymap_create.9f
1275     link path=usr/share/man/man9f/sas_phymap_phys_rem.9f \
1276         target=sas_phymap_create.9f
1277     link path=usr/share/man/man9f/sas_phymap_phys_free.9f \
1278         target=sas_phymap_lookup_ua.9f
1279     link path=usr/share/man/man9f/sas_phymap_phys_next.9f \
1280         target=sas_phymap_lookup_ua.9f
1281     link path=usr/share/man/man9f/sas_phymap_ua2phys.9f \
1282         target=sas_phymap_lookup_ua.9f
1283     link path=usr/share/man/man9f/sas_phymap_ua_free.9f \
1284         target=sas_phymap_lookup_ua.9f
1285     link path=usr/share/man/man9f/sas_phymap_uahasphys.9f \
1286         target=sas_phymap_lookup_ua.9f
1287     link path=usr/share/man/man9f/scsi_device_hba_private_get.9f \
1288         target=scsi_address_device.9f
1289     link path=usr/share/man/man9f/scsi_device_hba_private_set.9f \
1290         target=scsi_address_device.9f
1291     link path=usr/share/man/man9f/scsi_device_unit_address.9f \
1292         target=scsi_address_device.9f
1293     link path=usr/share/man/man9f/scsi_dmafree.9f target=scsi_dmaget.9f
1294     link path=usr/share/man/man9f/scsi_dname.9f target=scsi_cname.9f
1295     link path=usr/share/man/man9f/scsi_free_wwnstr.9f target=scsi_wwnstr_to_wwn.9f
1296     link path=usr/share/man/man9f/scsi_hba_detach.9f \
1297         target=scsi_hba_attach_setup.9f
1298     link path=usr/share/man/man9f/scsi_hba_fini.9f target=scsi_hba_init.9f
1299     link path=usr/share/man/man9f/scsi_hba_iport_find.9f \
1300         target=scsi_hba_iport_exist.9f
1301     link path=usr/share/man/man9f/scsi_hba_iportmap_destroy.9f \
1302         target=scsi_hba_iportmap_create.9f
1303     link path=usr/share/man/man9f/scsi_hba_iportmap_iport_add.9f \
1304         target=scsi_hba_iportmap_create.9f
1305     link path=usr/share/man/man9f/scsi_hba_iportmap_iport_remove.9f \
1306         target=scsi_hba_iportmap_create.9f
1307     link path=usr/share/man/man9f/scsi_hba_pkt_free.9f \
1308         target=scsi_hba_pkt_alloc.9f
1309     link path=usr/share/man/man9f/scsi_hba_tgtmap_destroy.9f \
1310         target=scsi_hba_tgtmap_create.9f
1311     link path=usr/share/man/man9f/scsi_hba_tgtmap_set_add.9f \
1312         target=scsi_hba_tgtmap_create.9f
1313     link path=usr/share/man/man9f/scsi_hba_tgtmap_set_begin.9f \
1314         target=scsi_hba_tgtmap_create.9f
1315     link path=usr/share/man/man9f/scsi_hba_tgtmap_set_end.9f \

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1316     target=scsi_hba_tgtmap_create.9f
1317 link path=usr/share/man/man9f/scsi_hba_tgtmap_set_flush.9f \
1318     target=scsi_hba_tgtmap_create.9f
1319 link path=usr/share/man/man9f/scsi_hba_tgtmap_tgt_add.9f \
1320     target=scsi_hba_tgtmap_create.9f
1321 link path=usr/share/man/man9f/scsi_hba_tgtmap_tgt_remove.9f \
1322     target=scsi_hba_tgtmap_create.9f
1323 link path=usr/share/man/man9f/scsi_hba_tran_free.9f \
1324     target=scsi_hba_tran_alloc.9f
1325 link path=usr/share/man/man9f/scsi_ifsetcap.9f target=scsi_ifgetcap.9f
1326 link path=usr/share/man/man9f/scsi_mname.9f target=scsi_cname.9f
1327 link path=usr/share/man/man9f/scsi_pktfree.9f target=scsi_pktaalloc.9f
1328 link path=usr/share/man/man9f/scsi_resalloc.9f target=scsi_pktaalloc.9f
1329 link path=usr/share/man/man9f/scsi_resfree.9f target=scsi_pktaalloc.9f
1330 link path=usr/share/man/man9f/scsi_rname.9f target=scsi_cname.9f
1331 link path=usr/share/man/man9f/scsi_sense_asc.9f target=scsi_sense_key.9f
1332 link path=usr/share/man/man9f/scsi_sense_ascq.9f target=scsi_sense_key.9f
1333 link path=usr/share/man/man9f/scsi_sense_cmdspecific_uint64.9f \
1334     target=scsi_ext_sense_fields.9f
1335 link path=usr/share/man/man9f/scsi_sense_info_uint64.9f \
1336     target=scsi_ext_sense_fields.9f
1337 link path=usr/share/man/man9f/scsi_sname.9f target=scsi_cname.9f
1338 link path=usr/share/man/man9f/scsi_unslave.9f target=scsi_unprobe.9f
1339 link path=usr/share/man/man9f/scsi_wnn_to_wwnstr.9f \
1340     target=scsi_wnnstr_to_wwn.9f
1341 link path=usr/share/man/man9f/sema_destroy.9f target=semaphore.9f
1342 link path=usr/share/man/man9f/sema_init.9f target=semaphore.9f
1343 link path=usr/share/man/man9f/sema_p.9f target=semaphore.9f
1344 link path=usr/share/man/man9f/sema_p_sig.9f target=semaphore.9f
1345 link path=usr/share/man/man9f/sema_tryp.9f target=semaphore.9f
1346 link path=usr/share/man/man9f/sema_v.9f target=semaphore.9f
1347 link path=usr/share/man/man9f/snprintf.9f target=sprintf.9f
1348 link path=usr/share/man/man9f/strcasecmp.9f target=string.9f
1349 link path=usr/share/man/man9f/strcat.9f target=string.9f
1350 link path=usr/share/man/man9f/strchr.9f target=string.9f
1351 link path=usr/share/man/man9f/strcmp.9f target=string.9f
1352 link path=usr/share/man/man9f/strcpy.9f target=string.9f
1353 link path=usr/share/man/man9f/strdup.9f target=string.9f
1354 link path=usr/share/man/man9f/strfree.9f target=string.9f
1355 link path=usr/share/man/man9f/strlcat.9f target=string.9f
1356 link path=usr/share/man/man9f/strlcpy.9f target=string.9f
1357 link path=usr/share/man/man9f/strlen.9f target=string.9f
1358 link path=usr/share/man/man9f/strncasecmp.9f target=string.9f
1359 link path=usr/share/man/man9f/strncat.9f target=string.9f
1360 link path=usr/share/man/man9f/strncmp.9f target=string.9f
1361 link path=usr/share/man/man9f/strncpy.9f target=string.9f
1362 link path=usr/share/man/man9f/strrlen.9f target=string.9f
1363 link path=usr/share/man/man9f/strrchr.9f target=string.9f
1364 link path=usr/share/man/man9f/strspn.9f target=string.9f
1365 link path=usr/share/man/man9f/taskq_suspended.9f target=taskq.9f
1366 link path=usr/share/man/man9f/uconv_u16tou8.9f target=uconv_u16tou32.9f
1367 link path=usr/share/man/man9f/uconv_u32tou16.9f target=uconv_u16tou32.9f
1368 link path=usr/share/man/man9f/uconv_u32tou8.9f target=uconv_u16tou32.9f
1369 link path=usr/share/man/man9f/uconv_u8tou16.9f target=uconv_u16tou32.9f
1370 link path=usr/share/man/man9f/uconv_u8tou32.9f target=uconv_u16tou32.9f
1371 link path=usr/share/man/man9f/unfreezeestr.9f target=freezeestr.9f
1372 link path=usr/share/man/man9f/va_copy.9f target=va_arg.9f
1373 link path=usr/share/man/man9f/va_end.9f target=va_arg.9f
1374 link path=usr/share/man/man9f/va_start.9f target=va_arg.9f
1375 link path=usr/share/man/man9f/vcmn_err.9f target=cmn_err.9f
1376 link path=usr/share/man/man9f/vmem_destroy.9f target=vmem_create.9f
1377 link path=usr/share/man/man9f/vmem_free.9f target=vmem_alloc.9f
1378 link path=usr/share/man/man9f/vmem_size.9f target=vmem_walk.9f
1379 link path=usr/share/man/man9f/vmem_xalloc.9f target=vmem_alloc.9f
1380 link path=usr/share/man/man9f/vmem_xcreate.9f target=vmem_create.9f
1381 link path=usr/share/man/man9f/vmem_xfree.9f target=vmem_alloc.9f

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1382 link path=usr/share/man/man9f/vsnprintf.9f target=sprintf.9f
1383 link path=usr/share/man/man9f/vsprintf.9f target=sprintf.9f
1384 link path=usr/share/man/man9f/vzcmn_err.9f target=cmn_err.9f
1385 link path=usr/share/man/man9f/wr.9f target=WR.9f
1386 link path=usr/share/man/man9f/zcmn_err.9f target=cmn_err.9f

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