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new/exception_lists/packaging
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27616 Mon Mar  4 20:43:26 2013
new/exception_lists/packaging
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
*****
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28 #
29 # Exception List for validate_pkg
30 #

32 #
33 # The following entries are built in the /proto area
34 # but not included in any packages - this is intentional.
35 #
36 usr/include/auth_list.h
37 usr/include/bsm/audit_door_infc.h
38 usr/include/bsm/audit_private.h
39 usr/include/bsm/devalloc.h
40 usr/include/getxby_door.h
41 usr/include/passwdutil.h
42 usr/include/priv_utils.h
43 usr/include/rpcsvc/daemon_utils.h
44 usr/include/rpcsvc/svc_dg_priv.h
45 usr/include/security/pam_impl.h
46 usr/include/sys/clock_impl.h
47 usr/include/sys/ieeefp.h
48 usr/include/sys/winlockio.h
49 usr/include/scsi/plugins/ses/vendor/sun_impl.h
50 #
51 # Private/Internal libraries of the Cryptographic Framework.
52 #
53 lib/libkcf.so
54 lib/llib-lelfsign
55 lib/llib-lelfsign.ln
56 lib/llib-lkcf
57 lib/llib-lkcf.ln
58 usr/include/libelfsign.h
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59 usr/lib/llib-lsoftcrypto
60 usr/lib/llib-lsoftcrypto.ln
61 usr/lib/amd64/llib-lsoftcrypto.ln      i386
62 usr/lib/sparcv9/llib-lsoftcrypto.ln    sparc
64 #
65 # The following files are used by the DHCP service, the
66 # standalone's DHCP implementation, and the kernel (nfs_dlboot).
67 # They contain interfaces which are currently private.
68 #
69 usr/include/dhcp_svc_confkey.h
70 usr/include/dhcp_svc_confopt.h
71 usr/include/dhcp_svc_private.h
72 usr/include/dhcp_symbol.h
73 usr/include/sys/sunos_dhcp_class.h
74 usr/lib/libdhcpsvc.so
75 usr/lib/llib-ldhcpsvc
76 usr/lib/llib-ldhcpsvc.ln
77 #
78 # Private MAC driver header files
79 #
80 usr/include/inet/iptun.h
81 usr/include/sys/aggr_impl.h
82 usr/include/sys/aggr.h
83 usr/include/sys/dld_impl.h
84 usr/include/sys/dld_ioc.h
85 usr/include/sys/dls_impl.h
86 usr/include/sys/dls.h
87 usr/include/sys/mac_client_impl.h
88 usr/include/sys/mac_client.h
89 usr/include/sys/mac_flow_impl.h
90 usr/include/sys/mac_impl.h
91 usr/include/sys/mac_soft_ring.h
92 usr/include/sys/mac_stat.h
93 #
94 # Private GLDv3 userland libraries and headers
95 #
96 usr/include/libdladm_impl.h
97 usr/include/libdlaggr.h
98 usr/include/libdlether.h
99 usr/include/libdlflowImpl.h
100 usr/include/libdlflow.h
101 usr/include/libdliptun.h
102 usr/include/libdlmgmt.h
103 usr/include/libdlsim.h
104 usr/include/libdlstat.h
105 usr/include/libdlvnic.h
106 usr/include/libdlwlan_impl.h
107 usr/include/libdlwlan.h
108 #
109 # Virtual Network Interface Card (VNIC)
110 #
111 usr/include/sys/vnic.h
112 usr/include/sys/vnic_impl.h
113 #
114 # Private libipadm lint library and header files
115 #
116 usr/include/ipadm_ipmgmt.h
117 usr/include/ipadm_ndpd.h
118 usr/include/libipadm.h
119 lib/llib-lipadm
120 lib/llib-lipadm.ln
121 lib/libipadm.so
122 #
123 # Private libsocket header file
124 #
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125 usr/include/libsocket_priv.h
126 #
127 # IKE and IPsec support library exceptions. The IKE support
128 # library contains exclusively private interfaces, as does
129 # libipseutil. My apologies for the glut of header files here.
130 #
131 usr/include/errfp.h
132 usr/include/ikedoor.h
133 usr/include/ipsec_util.h
134 usr/lib/libike.so i386
135 usr/lib/amd64/libike.so i386
136 usr/lib/sparcv9/libike.so sparc
137 usr/lib/libipseutil.so
138 usr/lib/amd64/libipseutil.so i386
139 usr/lib/sparcv9/libipseutil.so sparc
140 usr/lib/llib-like
141 usr/lib/llib-like.ln
142 usr/lib/amd64/llib-like.ln i386
143 usr/lib/sparcv9/llib-like.ln sparc
144 usr/lib/llib-lipsecutil
145 usr/lib/llib-lipsecutil.ln
146 usr/lib/amd64/llib-lipsecutil.ln i386
147 usr/lib/sparcv9/llib-lipsecutil.ln sparc
148 #
149 usr/include/inet/ip_impl.h
150 usr/include/inet/ip_ndp.h
151 usr/include/inet/ip2mac_impl.h
152 usr/include/inet/ip2mac.h
153 usr/include/inet/rawip_impl.h
154 usr/include/inet/tcp_impl.h
155 usr/include/inet/udp_impl.h
156 usr/include/libmail.h
157 usr/include/libwam_priv.h
158 usr/include/protocols/ripngd.h
159 usr/include/s_string.h
160 usr/include/sys/loginmux_impl.h
161 usr/include/sys/vgareg.h
162 #
163 # Some IPsec headers can't be shipped lest we hit export controls...
164 #
165 usr/include/inet/ipsec_impl.h
166 usr/include/inet/ipsec_info.h
167 usr/include/inet/ipsecah.h
168 usr/include/inet/ipsecesp.h
169 usr/include/inet/keysock.h
170 usr/include/inet/sadb.h
171 usr/include/sys/shal_consts.h
172 usr/include/sys/sha2_consts.h
173 #
174 #
175 # Filtering out directories not shipped
176 #
177 usr/4lib i386
178 #
179 # These files contain definitions shared privately between the kernel
180 # and libc. There is no reason for them to be part of a package that
181 # a customer should ever see. They are installed in the proto area by
182 # the uts build because libc and other components, like truss, are
183 # dependent upon their contents and should not have their own copies.
184 #
185 usr/include/sys/libc_kernel.h
186 usr/include/sys/synch32.h
187 #
188 # These files are installed in the proto area by the build of libproc for
189 # the benefit of the builds of cmd/truss, cmd/gcore and cmd/ptools, which
190 # use libproc as their common process-control library. These are not

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191 # interfaces for customer use, so the files are excluded from packaging.
192 #
193 lib/llib-lproc
194 lib/llib-lproc.ln
195 lib/amd64/llib-lproc.ln i386
196 lib/sparcv9/llib-lproc.ln sparc
197 usr/include/libproc.h
198 #
199 # Private interfaces for libdisasm
200 #
201 usr/include/libdisasm.h
202 usr/lib/llib-ldisasm
203 usr/lib/llib-ldisasm.ln
204 usr/lib/amd64/llib-ldisasm.ln i386
205 usr/lib/sparcv9/llib-ldisasm.ln sparc
206 #
207 # Private interfaces for libraidcfg
208 #
209 usr/include/raidcfg_spi.h
210 usr/include/raidcfg.h
211 usr/lib/libraidcfg.so
212 usr/lib/amd64/libraidcfg.so i386
213 usr/lib/sparcv9/libraidcfg.so sparc
214 usr/lib/llib-lraidacfg
215 usr/lib/llib-lraidacfg.ln
216 usr/lib/amd64/llib-lraidacfg.ln i386
217 usr/lib/sparcv9/llib-lraidacfg.ln sparc
218 #
219 # This file is used for private communication between mdb, drv/kmdb, and
220 # misc/kmdb. The interfaces described herein are not intended for customer
221 # use, and are thus excluded from packaging.
222 #
223 usr/include/sys/kmdb.h
224 #
225 # These files are installed in the proto area by the build of libdhcpagent
226 # and libdhcputil for the benefit of DHCP-related networking commands such
227 # as dhcpcagent, dhcpcinfo, ifconfig, and netstat. These are not interfaces
228 # for customer use, so the files are excluded from packaging.
229 #
230 lib/libdhcpagent.so
231 lib/libdhcputil.so
232 lib/amd64/libdhcputil.so i386
233 lib/sparcv9/libdhcputil.so sparc
234 lib/llib-ldhcpagent
235 lib/llib-ldhcpagent.ln
236 lib/llib-ldhcputil
237 lib/llib-ldhcputil.ln
238 lib/amd64/llib-ldhcputil.ln i386
239 lib/sparcv9/llib-ldhcputil.ln sparc
240 usr/include/dhcp_hostconf.h
241 usr/include/dhcp_impl.h
242 usr/include/dhcp_inittab.h
243 usr/include/dhcp_stable.h
244 usr/include/dhcp_symbol_common.h
245 usr/include/dhcpcagent_ipc.h
246 usr/include/dhcpcagent_util.h
247 usr/include/dhcpcmsg.h
248 usr/lib/libdhcpagent.so
249 usr/lib/libdhcputil.so
250 usr/lib/amd64/libdhcputil.so i386
251 usr/lib/sparcv9/libdhcputil.so sparc
252 usr/lib/llib-ldhcpagent
253 usr/lib/llib-ldhcpagent.ln
254 usr/lib/llib-ldhcputil
255 usr/lib/llib-ldhcputil.ln
256 usr/lib/amd64/llib-ldhcputil.ln i386

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257 usr/lib/sparcv9/llib-ldhcputil.ln      sparc
258 #
259 # These files are installed in the proto area by the build of libinstzones
260 # and libpkg
261 #
262 usr/lib/llib-linstzones
263 usr/lib/llib-linstzones.ln
264 usr/lib/amd64/llib-linstzones.ln      i386
265 usr/lib/sparcv9/llib-linstzones.ln      sparc
266 usr/lib/llib-lpkg
267 usr/lib/llib-lpkg.ln
268 #
269 # Don't ship header files private to libipmp and in.mpathd
270 #
271 usr/include/ipmp_query_impl.h
272 #
273 # These files are installed in the proto area by the build of libinetsvc,
274 # an inetd-specific library shared by inetd, inetadm and inetconv. Only
275 # the shared object is shipped.
276 #
277 usr/include/inetsvc.h
278 usr/lib/libinetsvc.so
279 usr/lib/llib-linetsvc
280 usr/lib/llib-linetsvc.ln
281 #
282 # These files are installed in the proto area by the build of libinetutil,
283 # a general purpose library for the benefit of internet utilities. Only
284 # the shared object is shipped.
285 #
286 lib/libinetutil.so
287 lib/amd64/libinetutil.so          i386
288 lib/sparcv9/libinetutil.so        sparc
289 lib/llib-linetutil
290 lib/llib-linetutil.ln
291 lib/amd64/llib-linetutil.ln      i386
292 lib/sparcv9/llib-linetutil.ln      sparc
293 usr/include/libinetutil.h
294 usr/include/netinet/inetutil.h
295 usr/include/ofmt.h
296 usr/lib/libinetutil.so
297 usr/lib/amd64/libinetutil.so      i386
298 usr/lib/sparcv9/libinetutil.so      sparc
299 usr/llib-linetutil.ln
300 usr/lib/llib-linetutil.ln
301 usr/lib/amd64/llib-linetutil.ln      i386
302 usr/lib/sparcv9/llib-linetutil.ln      sparc
303 #
304 # Miscellaneous kernel interfaces or kernel<->user interfaces that are
305 # consolidation private and we do not want to export at this time.
306 #
307 usr/include/sys/cryptmod.h
308 usr/include/sys/dumpadm.h
309 usr/include/sys/ontrap.h
310 usr/include/sys/sysmsg_impl.h
311 usr/include/sys/vlan.h
312 #
313 # These files are installed in the proto area so lvm can use
314 # them during the build process.
315 #
316 lib/llib-lmeta
317 lib/llib-lmeta.ln
318 usr/include/sdssc.h
319 usr/lib/llib-lmeta
320 usr/lib/llib-lmeta.ln
321 #
322 # non-public pci header

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323 #
324 usr/include/sys/pci_impl.h
325 usr/include/sys/pci_tools.h
326 #
327 # Exception list for RCM project, included by librcm and rcm_daemon
328 #
329 usr/include/librcm_event.h
330 usr/include/librcm_impl.h
331 #
332 # MDB deliverables that are not yet public
333 #
334 usr/lib/mdb/proc/mdb_test.so
335 usr/lib/mdb/proc/sparcv9/mdb_test.so      sparc
336 #
337 # SNCA project exception list
338 #
339 usr/include/inet/kssl/kssl.h
340 usr/include/inet/kssl/ksslimpl.h
341 usr/include/inet/kssl/ksslproto.h
342 usr/include/inet/nca
343 #
344 # these are "removed" from the source product build because the only
345 # packages that currently deliver them are removed.
346 # they really should't be in here.
347 #
348 etc/sfw
349 #
350 # Entries for the libmech_krb5 symlink, which has been included
351 # for build purposes only, not delivered to customers.
352 #
353 usr/lib/gss/libmech_krb5.so
354 usr/lib/amd64/gss/libmech_krb5.so      i386
355 usr/lib/sparcv9/gss/libmech_krb5.so      sparc
356 usr/lib/libmech_krb5.so
357 usr/lib/amd64/libmech_krb5.so      i386
358 usr/lib/sparcv9/libmech_krb5.so      sparc
359 #
360 # Entries for headers from efcode project which user does not need to see
361 #
362 usr/platform/sun4u/include/sys/fc_plat.h
363 usr/platform/sun4u/include/sys/fcode.h
364 #
365 # Private net80211 headers
366 #
367 usr/include/sys/net80211_crypto.h
368 usr/include/sys/net80211_ht.h
369 usr/include/sys/net80211_proto.h
370 usr/include/sys/net80211.h
371 #
372 usr/include/net/wpa.h
373 #
374 # PPPoE files not delivered to customers.
375 #
376 usr/include/net/pppoe.h
377 usr/include/net/sppptun.h
378 #
379 # Simnet
380 #
381 usr/include/net/simnet.h
382 #
383 # Bridging internal data structures
384 #
385 usr/include/net/bridge_impl.h
386 #
387 # User<->kernel interface used by cfgadm/USB only
388 #

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389 usr/include/sys/usb/hubd/hubd_impl.h
390 #
391 # User<->kernel interface used by cfgadm/SATA only
392 #
393 usr/include/sys/sata/sata_cfgadm.h          i386
394 #
395 # Private ucred kernel header
396 #
397 usr/include/sys/ucred.h
398 #
399 # Private and/or platform-specific smf(5) files
400 #
401 lib/librestart.so
402 lib/llib-lrestart
403 lib/llib-lrestart.ln
404 lib/amd64/llib-lrestart.ln
405 lib/sparcv9/llib-lrestart.ln
406 usr/include/libcontract_priv.h
407 usr/include/librestart_priv.h
408 usr/include/librestart.h
409 usr/lib/librestart.so
410 usr/lib/sparcv9/librestart.so
411 lib/svc/manifest/platform/sun4u
412 lib/svc/manifest/platform/sun4v
413 var/svc/manifest/platform/sun4u
414 var/svc/manifest/platform/sun4v
415 etc/svc/profile/platform_sun4v.xml
416 etc/svc/profile/platform_SUNW,SPARC-Enterprise.xml
417 etc/svc/profile/platform_SUNW,Sun-Fire-15000.xml
418 etc/svc/profile/platform_SUNW,Sun-Fire-880.xml
419 etc/svc/profile/platform_SUNW,Sun-Fire-V890.xml
420 etc/svc/profile/platform_SUNW,Sun-Fire.xml
421 etc/svc/profile/platform_SUNW,Ultra-Enterprise-10000.xml
422 etc/svc/profile/platform_SUNW,UltraSPARC-IIe-NetraCT-40.xml
423 etc/svc/profile/platform_SUNW,UltraSPARC-IIe-NetraCT-60.xml
424 etc/svc/profile/platform_SUNW,UltraSPARC-III-Netract.xml
425 #
426 # Private libuutil files
427 #
428 lib/libuutil.so
429 lib/llib-luutil
430 lib/llib-luutil.ln
431 lib/sparcv9/llib-luutil.ln          sparc
432 usr/include/libuutil_impl.h
433 usr/lib/libuutil.so
434 usr/lib/sparcv9/libuutil.so          sparc
435 #
436 # Private Multidata file.
437 #
438 usr/include/sys/multidata_impl.h
439 #
440 # The following files are used by wanboot.
441 # They contain interfaces which are currently private.
442 #
443 usr/include/sys/wanboot_impl.h
444 usr/include/wanboot
445 usr/include/wanbootutil.h
446 #
447 # Even though all the objects built under usr/src/stand are later glommed
448 # together into a couple of second-stage boot loaders, we dump the static
449 # archives and lint libraries into $(ROOT)/stand for intermediate use
450 # (e.g., for lint, linking the second-stage boot loaders, ...). Since
451 # these are merely intermediate objects, they do not need to be packaged.
452 #
453 stand                         sparc
454 #

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455 # Private KCF header files
456 #
457 usr/include/sys/crypto/elfsign.h
458 usr/include/sys/crypto/impl.h
459 usr/include/sys/crypto/ops_impl.h
460 usr/include/sys/crypto/sched_impl.h
461 #
462 # The following files are installed in the proto area
463 # by the build of libavl (AVL Tree Interface Library).
464 # libavl contains interfaces which are all private interfaces.
465 #
466 lib/libavl.so
467 lib/amd64/libavl.so          i386
468 lib/sparcv9/libavl.so        sparc
469 lib/llib-lavl
470 lib/llib-lavl.ln
471 lib/amd64/llib-lavl.ln       i386
472 lib/sparcv9/llib-lavl.ln     sparc
473 usr/lib/libavl.so
474 usr/lib/amd64/libavl.so      i386
475 usr/lib/sparcv9/libavl.so    sparc
476 usr/lib/llib-lavl
477 usr/lib/llib-lavl.ln
478 usr/lib/amd64/llib-lavl.ln   i386
479 usr/lib/sparcv9/llib-lavl.ln sparc
480 #
481 # The following files are installed in the proto area
482 # by the build of libcmdutils (Command Utilities Library).
483 # libcmdutils contains interfaces which are all private interfaces.
484 #
485 lib/libcmdutils.so
486 lib/amd64/libcmdutils.so      i386
487 lib/sparcv9/libcmdutils.so    sparc
488 lib/llib-lcmdutils
489 lib/llib-lcmdutils.ln
490 lib/amd64/llib-lcmdutils.ln   i386
491 lib/sparcv9/llib-lcmdutils.ln sparc
492 usr/include/libcmdutils.h
493 usr/lib/libcmdutils.so
494 usr/lib/amd64/libcmdutils.so   i386
495 usr/lib/sparcv9/libcmdutils.so sparc
496 usr/lib/llib-lcmdutils
497 usr/lib/llib-lcmdutils.ln
498 usr/lib/amd64/llib-lcmdutils.ln i386
499 usr/lib/sparcv9/llib-lcmdutils.ln sparc
500 #
501 # Private interfaces in libsec
502 #
503 usr/include/aclutils.h
504 #
505 # USB skeleton driver stays in sync with the rest of USB but doesn't ship.
506 #
507 kernel/drv/usbskel          i386
508 kernel/drv/amd64/usbskel    i386
509 kernel/drv/sparcv9/usbskel  sparc
510 kernel/drv/usbskel.conf
511 #
512 # Consolidation and Sun private libdevid interfaces
513 # Public libdevid interfaces provided by devid.h
514 #
515 usr/include/sys/libdevid.h
516 #
517 # The following files are installed in the proto area by the build of
518 # libprtdiag. libprtdiag contains interfaces which are all private.
519 # Only the shared object is shipped.
520 #

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521 usr/platform/sun4u/lib/l1lib-lprtdiag          sparc
522 usr/platform/sun4u/lib/l1lib-lprtdiag.ln       sparc
523 usr/platform/sun4v/lib/l1lib-lprtdiag.ln       sparc
524 #
525 # The following files are installed in the proto area by the build of
526 # mdesc driver in sun4v. These header files are used on in the build
527 # and do not need to be shipped to customers.
528 #
529 usr/include/sys/mdesc.h                         sparc
530 usr/include/sys/mdesc_impl.h                   sparc
531 usr/platform/sun4v/include/sys/mach_descrip.h   sparc
532 #
533 # The following files are installed in the proto area by the build of
534 # libpcp. libpcp contains interfaces which are all private.
535 # Only the shared object is shipped.
536 #
537 usr/platform/sun4v/lib/l1lib-lpcp.ln           sparc
538 usr/platform/SUNW,Netra-CP3060/lib/l1lib-lpcp.ln sparc
539 usr/platform/SUNW,Netra-CP3260/lib/l1lib-lpcp.ln sparc
540 usr/platform/SUNW,Netra-T5220/lib/l1lib-lpcp.ln  sparc
541 usr/platform/SUNW,Netra-T5440/lib/l1lib-lpcp.ln  sparc
542 usr/platform/SUNW,SPARC-Enterprise-T5120/lib/l1lib-lpcp.ln sparc
543 usr/platform/SUNW,Sun-Blade-T6300/lib/l1lib-lpcp.ln sparc
544 usr/platform/SUNW,Sun-Blade-T6320/lib/l1lib-lpcp.ln sparc
545 usr/platform/SUNW,Sun-Fire-T200/lib/l1lib-lpcp.ln sparc
546 usr/platform/SUNW,T5140/lib/l1lib-lpcp.ln       sparc
547 usr/platform/SUNW,USBRDT-5240/lib/l1lib-lpcp.ln  sparc
548 #
549 # ZFS internal tools and lint libraries
550 #
551 usr/lib/l1lib-lzfs_jni
552 usr/lib/l1lib-lzfs_jni.ln
553 usr/lib/amd64/l1lib-lzfs_jni.ln      i386
554 usr/lib/sparcv9/l1lib-lzfs_jni.ln    sparc
555 usr/lib/l1lib-lzpool
556 usr/lib/l1lib-lzpool.ln      i386
557 usr/lib/amd64/l1lib-lzpool.ln      i386
558 usr/lib/sparcv9/l1lib-lzpool.ln    sparc
559 #
560 # ZFS JNI headers
561 #
562 usr/include/libzfs_jni_dataset.h
563 usr/include/libzfs_jni_disk.h
564 usr/include/libzfs_jni_diskmgt.h
565 usr/include/libzfs_jni_ipool.h
566 usr/include/libzfs_jni_main.h
567 usr/include/libzfs_jni_pool.h
568 usr/include/libzfs_jni_property.h
569 usr/include/libzfs_jni_util.h
570 #
571 # These files are installed in the proto area for Solaris scsi_vhci driver
572 # (for MPAPI support) and should not be shipped
573 #
574 usr/include/sys/scsi/adapters/mpapi_impl.h
575 usr/include/sys/scsi/adapters/mpapi_scsi_vhci.h
576 #
577 # This library is installed in the proto area by the build of libdisasm, and is
578 # only used when building the KMDB disasm module.
579 #
580 usr/lib/libstanddisasm.so
581 usr/lib/amd64/libstanddisasm.so      i386
582 usr/lib/sparcv9/libstanddisasm.so    sparc
583 #
584 # TSol: tsol doesn't ship lint source, and tsnet isn't for customers at all.
585 #
586 lib/libtsnet.so

```

new/exception_lists/packaging

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```

587 usr/lib/l1lib-ltsnet
588 usr/lib/l1lib-ltsol
589 #
590 # nss interfaces shared between libnsl and other ON libraries.
591 #
592 usr/include/nss.h
593 #
594 # AT&T AST (ksh93) files which are currently needed only to build OS/Net
595 # (msgcc&co.)
596 # libast
597 usr/lib/libast.so
598 usr/lib/amd64/libast.so          i386
599 usr/lib/sparcv9/libast.so       sparc
600 usr/lib/l1lib-last
601 usr/lib/l1lib-last.ln
602 usr/lib/amd64/l1lib-last.ln     i386
603 usr/lib/sparcv9/l1lib-last.ln  sparc
604 # libcmd
605 usr/lib/l1lib-lcmd
606 usr/lib/l1lib-lcmd.ln
607 usr/lib/amd64/l1lib-lcmd.ln     i386
608 usr/lib/sparcv9/l1lib-lcmd.ln  sparc
609 # libdl1
610 usr/lib/libdl1.so
611 usr/lib/amd64/libdl1.so         i386
612 usr/lib/sparcv9/libdl1.so      sparc
613 usr/lib/l1lib-ld1l
614 usr/lib/l1lib-ld1l.ln
615 usr/lib/amd64/l1lib-ld1l.ln     i386
616 usr/lib/sparcv9/l1lib-ld1l.ln  sparc
617 # libpp (a helper library needed by AST's msgcc)
618 usr/lib/libpp.so
619 usr/lib/l1lib-lpp
620 usr/lib/l1lib-lpp.ln
621 usr/lib/locale/C/LC_MESSAGES/libpp
622 # libshell
623 usr/lib/libshell.so
624 usr/lib/amd64/libshell.so        i386
625 usr/lib/sparcv9/libshell.so     sparc
626 usr/lib/l1lib-lshell
627 usr/lib/l1lib-lshell.ln
628 usr/lib/amd64/l1lib-lshell.ln     i386
629 usr/lib/sparcv9/l1lib-lshell.ln  sparc
630 # libsum
631 usr/lib/libsum.so
632 usr/lib/amd64/libsum.so         i386
633 usr/lib/sparcv9/libsum.so       sparc
634 usr/lib/l1lib-lsum
635 usr/lib/l1lib-lsum.ln
636 usr/lib/amd64/l1lib-lsum.ln     i386
637 usr/lib/sparcv9/l1lib-lsum.ln  sparc
638 #
639 # This file is used in ON to build DSCP clients. It is not for customers.
640 #
641 usr/include/libdscp.h           sparc
642 #
643 # These files are used by the iSCSI Target and the iSCSI Initiator
644 #
645 usr/include/sys/iscsi_protocol.h
646 usr/include/sys/iscsi_authclient.h
647 usr/include/sys/iscsi_authclientglue.h
648 #
649 # These files are used by the COMSTAR iSCSI target port provider
650 #
651 usr/include/sys/idsm
652 usr/include/sys/iscsit/chap.h

```

new/exception_lists/packaging

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```

653 usr/include/sys/iscsit/iscsi_if.h
654 usr/include/sys/iscsit/isns_protocol.h
655 usr/include/sys/iscsit/radius_packet.h
656 usr/include/sys/iscsit/radius_protocol.h
657 #
658 # libshare is private and the 64-bit sharemgr is not delivered.
659 #
660 usr/lib/libshare.so i386
661 usr/lib/amd64/libshare.so i386
662 usr/lib/sparcv9/libshare.so sparc
663 usr/lib/fs/autofs/libshare_autofs.so i386
664 usr/lib/fs/autofs/amd64/libshare_autofs.so i386
665 usr/lib/fs/autofs/sparcv9/libshare_autofs.so sparc
666 usr/lib/fs/nfs/libshare_nfs.so
667 usr/lib/fs/amd64/libshare_nfs.so i386
668 usr/lib/fs/nfs/sparcv9/libshare_nfs.so sparc
669 usr/lib/fs/smb/libshare_smb.so
670 usr/lib/fs/smb/amd64/libshare_smb.so i386
671 usr/lib/fs/smb/sparcv9/libshare_smb.so sparc
672 usr/lib/fs/smbfs/libshare_smbfs.so
673 usr/lib/fs/smbfs/amd64/libshare_smbfs.so i386
674 usr/lib/fs/smbfs/sparcv9/libshare_smbfs.so sparc
675 usr/include/libshare_impl.h
676 usr/include/scfutil.h
677 #
678 # These files are installed in the proto area by the build of libpri for
679 # the benefit of the builds of FMA libldm, Zeus, picld plugins, and/or
680 # other libpri consumers. However, the libpri interfaces are private to
681 # Sun (Consolidation Private) and not intended for customer use. So these
682 # files (the symlink and the lint library) are excluded from packaging.
683 #
684 usr/lib/libpri.so sparc
685 usr/lib/l1ib-lpri sparc
686 usr/lib/l1ib-lpri.ln sparc
687 usr/lib/sparcv9/libpri.so sparc
688 usr/lib/sparcv9/l1ib-lpri.ln sparc
689 #
690 # These files are installed in the proto area by the build of libds for
691 # the benefit of the builds of sun4v IO FMA and/or other libds
692 # consumers. However, the libds interfaces are private to Sun
693 # (Consolidation Private) and not intended for customer use. So these
694 # files (the symlink and the lint library) are excluded from packaging.
695 #
696 usr/lib/libds.so sparc
697 usr/lib/sparcv9/libds.so sparc
698 usr/lib/l1ib-lds sparc
699 usr/lib/l1ib-lds.ln sparc
700 usr/lib/sparcv9/l1ib-lds.ln sparc
701 usr/lib/libdscfg.so
702 usr/lib/l1ib-lscfg.ln
703 usr/platform/sun4v/include/sys/libds.h sparc
704 usr/platform/sun4v/include/sys/vlds.h sparc
705 #
706 # Private/Internal u8_textprep header file. Do not ship.
707 #
708 usr/include/sys/u8_textprep_data.h
709 #
710 # SQLite is private, used by SMF (svc.configd), idmapd and libsmb.
711 #
712 usr/include/sqlite
713 usr/lib/libsqLite-native.o
714 usr/lib/libsqLite.o
715 usr/lib/l1ib-lsqLite.ln
716 usr/lib/smbsrv/libsqLite.so
717 #
718 # Private/Internal kiconv header files. Do not ship.

```

new/exception_lists/packaging

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```

719 #
720 usr/include/sys/kiconv_big5_utf8.h
721 usr/include/sys/kiconv_cck_common.h
722 usr/include/sys/kiconv_cp950hkscs_utf8.h
723 usr/include/sys/kiconv_emeal.h
724 usr/include/sys/kiconv_emea2.h
725 usr/include/sys/kiconv_euckr_utf8.h
726 usr/include/sys/kiconv_euctw_utf8.h
727 usr/include/sys/kiconv_gb18030_utf8.h
728 usr/include/sys/kiconv_gb2312_utf8.h
729 usr/include/sys/kiconv_hkscs_utf8.h
730 usr/include/sys/kiconv_ja_jis_to_unicode.h
731 usr/include/sys/kiconv_ja_unicode_to_jis.h
732 usr/include/sys/kiconv_ja.h
733 usr/include/sys/kiconv_ko.h
734 usr/include/sys/kiconv_latin1.h
735 usr/include/sys/kiconv_sc.h
736 usr/include/sys/kiconv_tc.h
737 usr/include/sys/kiconv_uhc_utf8.h
738 usr/include/sys/kiconv_utf8_big5.h
739 usr/include/sys/kiconv_utf8_cp950hkscs.h
740 usr/include/sys/kiconv_utf8_euckr.h
741 usr/include/sys/kiconv_utf8_euctw.h
742 usr/include/sys/kiconv_utf8_gb18030.h
743 usr/include/sys/kiconv_utf8_gb2312.h
744 usr/include/sys/kiconv_utf8_hkscs.h
745 usr/include/sys/kiconv_utf8_uhc.h
746 #
747 # At this time, the ttydefs.cleanup file is only useful on sun4u systems
748 #
749 etc/flash/postdeployment/ttydefs.cleanup i386
750 #
751 # This header file is shared only between the power commands and
752 # ppm/srn modules # and should not be in any package
753 #
754 usr/include/sys/srn.h
755 #
756 # Private/Internal header files of smbsrv. Do not ship.
757 #
758 usr/include/smb
759 usr/include/smbsrv
760 #
761 # Private/Internal dtrace scripts of smbsrv. Do not ship.
762 #
763 usr/lib/smbsrv/dtrace
764 #
765 # Private/Internal (lint) libraries of smbsrv. Do not ship.
766 #
767 usr/lib/reparse/l1ib-lreparse_smb
768 usr/lib/reparse/l1ib-lreparse_smb.ln
769 usr/lib/smbsrv/l1ib-lmlrpc
770 usr/lib/smbsrv/l1ib-lmlrpc.ln
771 usr/lib/smbsrv/l1ib-lmlsvc
772 usr/lib/smbsrv/l1ib-lmlsvc.ln
773 usr/lib/smbsrv/l1ib-lsmb
774 usr/lib/smbsrv/l1ib-lsmb.ln
775 usr/lib/smbsrv/l1ib-lsmbns
776 usr/lib/smbsrv/l1ib-lsmbns.ln
777 #
778 #
779 # Private/Internal 64-bit libraries of smbsrv. Do not ship.
780 #
781 usr/lib/smbsrv/amd64 i386
782 usr/lib/smbsrv/sparcv9 sparc
784 usr/lib/reparse/amd64/libreparse_smb.so i386

```

new/exception_lists/packaging

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```

785 usr/lib/reparse/amd64/libreparse_smb.so.1      i386
786 usr/lib/reparse/amd64/lilib-lreparse_smb.ln     i386
787 usr/lib/reparse/sparcv9/libreparse_smb.so       sparc
788 usr/lib/reparse/sparcv9/libreparse_smb.so.1     sparc
789 usr/lib/reparse/sparcv9/lilib-lreparse_smb.ln   sparc
790 #
791 # Private dirent, extended to include flags, for use by SMB server
792 #
793 usr/include/sys/extdirent.h
794 #
795 # Private header files for vscan service
796 #
797 usr/include/libvscan.h
798 usr/include/sys/vscan.h
799 #
800 # libvscan is private
801 #
802 usr/lib/vscan/lilib-lvscan
803 usr/lib/vscan/lilib-lvscan.ln
804 #
805 # i86hvm is not a full platform. It is just a home for paravirtualized
806 # drivers. There is no usr/ component to this sub-platform, but the
807 # directory is created in the proto area to keep other tools happy.
808 #
809 usr/platform/i86hvm
810 #
811 # Private sdcard framework headers
812 #
813 usr/include/sys/sdcard
814 #
815 # libsmibfs is private
816 #
817 usr/include/netsmb
818 usr/lib/libsmibfs.so
819 usr/lib/amd64/libsmibfs.so          i386
820 usr/lib/sparcv9/libsmibfs.so       sparc
821 usr/lib/lilib-lsmibfs
822 usr/lib/lilib-lsmibfs.ln
823 usr/lib/amd64/lilib-lsmibfs.ln    i386
824 usr/lib/sparcv9/lilib-lsmibfs.ln  sparc
825 #
826 # demo & test program for smibfs (private) ACL support
827 #
828 usr/lib/fs/smibfs/chacl
829 usr/lib/fs/smibfs/lsacl
830 usr/lib/fs/smibfs/testnlp
831 #
832 # FC related files
833 kernel/kmdb/fcip
834 kernel/kmdb/amd64/fcip           i386
835 kernel/kmdb/sparcv9/fcip        sparc
836 kernel/kmdb/fcp
837 kernel/kmdb/amd64/fcp          i386
838 kernel/kmdb/sparcv9/fcp        sparc
839 kernel/kmdb/fctl
840 kernel/kmdb/amd64/fctl         i386
841 kernel/kmdb/sparcv9/fctl        sparc
842 kernel/kmdb/qlc
843 kernel/kmdb/amd64/qlc          i386
844 kernel/kmdb/sparcv9/qlc        sparc
845 lib/lilib-la5k
846 lib/lilib-la5k.ln
847 lib/sparcv9/lilib-la5k.ln
848 lib/lilib-lg_fc
849 lib/lilib-lg_fc.ln
850 lib/sparcv9/lilib-lg_fc.ln

```

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```

851 usr/include/a_state.h      sparc
852 usr/include/a5k.h          sparc
853 usr/include/exec.h         sparc
854 usr/include/g_scsi.h       sparc
855 usr/include/g_state.h     sparc
856 usr/include/gfc.h          sparc
857 usr/include/l_common.h     sparc
858 usr/include/l_error.h      sparc
859 usr/include/rom.h          sparc
860 usr/include/stgcom.h       sparc
861 usr/include/sys/fibre-channel
862 usr/lib/lilib-lHBAPI
863 usr/lib/lilib-lHBAPI.ln
864 usr/lib/amd64/lilib-lHBAPI.ln  i386
865 usr/lib/sparcv9/lilib-lHBAPI.ln sparc
866 #
867 usr/bin/dscfgcli
868 usr/bin/sd_diag
869 usr/bin/sd_stats
870 usr/include/nsctl.h
871 usr/include/sys/ncall
872 usr/include/sys/nsc_ddi.h
873 usr/include/sys/nsc_thread.h
874 usr/include/sys/nsctl
875 usr/include/sys/nskernd.h
876 usr/include/sys/unistat
877 usr/lib/libnsctl.so
878 usr/lib/librdc.so
879 usr/lib/libunistat.so
880 usr/lib/lilib-nsctl.ln
881 usr/lib/lilib-lrdc.ln
882 usr/lib/lilib-lunistat.ln
883 #
884 # These files are used by the iSCSI initiator only.
885 # No reason to ship them.
886 #
887 usr/include/sys/scsi/adapters/iscsi_door.h
888 usr/include/sys/scsi/adapters/iscsi_if.h
889 #
890 # sbd ioctl hdr
891 #
892 usr/include/sys/stmf_sbd_ioctl.h
893 #
894 # proxy port provider interface
895 #
896 usr/include/sys/pppt_ic_if.h
897 usr/include/sys/pppt_ioctl.h
898 #
899 # proxy daemon lint library
900 #
901 usr/lib/lilib-lstmfproxy
902 usr/lib/lilib-lstmfproxy.ln
903 usr/lib/amd64/lilib-lstmfproxy.ln  i386
904 usr/lib/sparcv9/lilib-lstmfproxy.ln  sparc
905 #
906 # portable object file and dictionary used by libfmd_msg test
907 #
908 usr/lib/fm/dict/TEST.dict
909 usr/lib/locale/C/LC_MESSAGES/TEST.mo
910 usr/lib/locale/C/LC_MESSAGES/TEST.po
911 #
912 # Private idmap RPC protocol
913 #
914 usr/include/rpcsvc/idmap_prot.h
915 usr/include/rpcsvc/idmap_prot.x
916 #

```

new/exception_lists/packaging

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```

917 # Private idmap directory API
918 #
919 usr/include/directory.h
920 #
921 # librstp is private for bridging
922 #
923 usr/include/stp_bpdu.h
924 usr/include/stp_in.h
925 usr/include/stp_vectors.h
926 usr/lib/librstp.so
927 usr/lib/llib-lrstp
928 usr/lib/llib-lrstp.ln
929 #
930 # Private nvfru API
931 #
932 usr/include/nvfru.h
933 #
934 # vrrp
935 #
936 usr/include/libvrrpadm.h
937 usr/lib/libvrrpadm.so
938 usr/lib/amd64/libvrrpadm.so      i386
939 usr/lib/sparcv9/libvrrpadm.so    sparc
940 usr/lib/llib-lvrrpadm
941 usr/lib/llib-lvrrpadm.ln
942 usr/lib/amd64/llib-lvrrpadm.ln   i386
943 usr/lib/sparcv9/llib-lvrrpadm.ln sparc
944 #
945 # This is only used during the -t tools build
946 #
947 opt/onbld/bin/i386/elfsign      i386
948 opt/onbld/bin/sparc/elfsign     sparc

950 #
951 # Private libdwarf
952 #
953 opt/onbld/lib/i386/libdwarf.so i386
954 opt/onbld/lib/sparc/libdwarf.so sparc

956 #
957 # Private socket filter API
958 #
959 usr/include/sys/sockfilter.h
960 #
961 # We don't actually validate license action payloads, and the license
962 # staging area is provided as a separate basedir for package
963 # publication. The net result is that everything therein should be
964 # ignored for packaging validation.
965 #
966 licenses
967 #
968 # Libbe is private
969 #
970 usr/include/libbe_priv.h
971 #
972 # ipmi is at present only useful on i386, but for historical reasons is
973 # delivered on SPARC and used by the build.
974 #
975 usr/include/sys/ipmi.h sparc

977 #
978 # libsaveargs is private
979 #
980 usr/include/saveargs.h          i386
981 usr/lib/amd64/libsaveargs.so    i386
982 usr/lib/amd64/libstandsavargs.so i386

```

new/exception_lists/packaging

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```

983 usr/lib/amd64/llib-lsaverargs.ln      i386
984 #endif /* ! codereview */

```

```
*****
1038 Mon Mar  4 20:43:27 2013
new/usr/src/cmd/mdb/intel/amd64/Makefile.kmdb
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
*****
1 #
2 # CDDL HEADER START
3 #
4 # The contents of this file are subject to the terms of the
5 # Common Development and Distribution License (the "License").
6 # You may not use this file except in compliance with the License.
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15 # If applicable, add the following below this CDDL HEADER, with the
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17 # information: Portions Copyright [yyyy] [name of copyright owner]
18 #
19 # CDDL HEADER END
20 #
21 #
22 # Copyright 2007 Sun Microsystems, Inc. All rights reserved.
23 # Use is subject to license terms.
24 #

26 KMDBML += \
27     kaif_invoke.s \
28     kmdb_start.s

30 KMDBSRCS += \
31     kmdb_makecontext.c \
32     mdb_amd64util.c \
32     mdb_amd64util.c \
33     saveargs.c

35 %.o: $(SRC)/common/saveargs/%.c
36     $(COMPILE.c) $<
37     $(CTFconvert_O)

39 %.ln: $(SRC)/common/saveargs/%.c
40     $(LINT.c) -c $<

34 SACPPFLAGS = -D__$(MACH64) -U__$(MACH)
43 CPPFLAGS += -I$(SRC)/common/saveargs
```

```
new/usr/src/cmd/mdb/intel/amd64/kmdb/Makefile
```

```
*****
```

```
2459 Mon Mar 4 20:43:28 2013
```

```
new/usr/src/cmd/mdb/intel/amd64/kmdb/Makefile
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
*****
```

```
1 #
2 # CDDL HEADER START
3 #
4 # The contents of this file are subject to the terms of the
5 # Common Development and Distribution License (the "License").
6 # You may not use this file except in compliance with the License.
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8 # You can obtain a copy of the license at usr/src/OPENSOLARIS.LICENSE
9 # or http://www.opensolaris.org/os/licensing.
10 # See the License for the specific language governing permissions
11 # and limitations under the License.
12 #
13 # When distributing Covered Code, include this CDDL HEADER in each
14 # file and include the License file at usr/src/OPENSOLARIS.LICENSE.
15 # If applicable, add the following below this CDDL HEADER, with the
16 # fields enclosed by brackets "[]" replaced with your own identifying
17 # information: Portions Copyright [yyyy] [name of copyright owner]
18 #
19 # CDDL HEADER END
20 #
21 #
22 # Copyright 2009 Sun Microsystems, Inc. All rights reserved.
23 # Use is subject to license terms.
24 #

26 #
27 # Build and link kmdb
28 #
29 all: $(PROG) kmdb_modlinktest.o

31 %.o: ../../kmdb/%.c
32     $(COMPILE.c) $<
33     $(CTFCONVERT_O)

35 %.o: ../../mdb/%.c
36     $(COMPILE.c) $<
37     $(CTFCONVERT_O)

39 %.o: $(SRC)/common/dis/i386/%.c
40     $(COMPILE.c) $<
41     $(CTFCONVERT_O)

43 %.ln: ../../kmdb/%.c
44     $(LINT.c) -c $<

46 %.ln: ../../mdb/%.c
47     $(LINT.c) -c $<

49 %.ln: $(SRC)/common/dis/i386/%.c
50     $(LINT.c) -c $<

52 ROOT_MISC_DIR      = $(ROOT)/kernel/misc
53 ROOT_MISC_DIR_64    = $(ROOT_MISC_DIR)/$(SUBDIR64)

55 ROOTMISC           = $(ROOT_MISC_DIR)/$(PROG)
56 ROOTMISC64          = $(ROOT_MISC_DIR_64)/$(PROG)

58 include ../../.../Makefile.cmd
```

```
1
```

```
new/usr/src/cmd/mdb/intel/amd64/kmdb/Makefile
```

```
59 include ../../.../Makefile.cmd.64
61 include ../../.../Makefile.amd64
62 include ../../.../Makefile.kmdb
64 STANDBUILDS += $(ROOT)/usr/lib/amd64/libstanddisasm.so
65 STANDBUILDS += $(ROOT)/usr/lib/amd64/libstandsaveargs.so
66 #endif /* ! codereview */

68 INCDIRS += $(SRC)/uts/i86pc $(SRC)/common/dis/i386
70 CPPFLAGS += -DDIS_TEXT
72 install: all $(ROOTMISC64)
74 #
75 # lint rules
76 #
78 .PARALLEL: lintkmdb lintprom lintkctl
80 lint: lintkmdb lintprom lintkctl
81     $(LINT) $(ALLLINTFLAGS) $(KMDBOJBS:.o=%.ln) $(PROMOBJS:.o=%.ln)
83 lintkmdb: $(KMDBOJBS:.o=%.ln)
84     $(LINT) $(LINTFLAGS) $(KMDBOJBS:.o=%.ln)
86 lintprom: $(PROMOBJS:.o=%.ln)
87     $(LINT) $(LINTFLAGS) $(PROMOBJS:.o=%.ln)
89 lintkctl: $(KCTLJOBS:.o=%.ln)
90     $(LINT) $(ALLLINTFLAGS) $(KCTLJOBS:.o=%.ln)
92 kmdb_context_off.h: ../../kmdb/kmdb_context_off.in
93     $(OFFSETS_CREATE) <../../kmdb/kmdb_context_off.in >$@
95 #
96 # Installation targets
97 #
99 $(ROOT_MISC_DIR) $(ROOT_MISC_DIR_64):
100     -$(INS.dir)
102 $(ROOT_MISC_DIR)/%:      % $(ROOT_MISC_DIR)
103     $(INS.file)
105 $(ROOT_MISC_DIR_64)/%:   % $(ROOT_MISC_DIR_64)
106     $(INS.file)
```

```
2
```

new/usr/src/cmd/mdb/intel/amd64/mdb/Makefile

1369 Mon Mar 4 20:43:29 2013

new/usr/src/cmd/mdb/intel/amd64/mdb/Makefile

3544 save-args matcher could be considerably more robust

3545 save-args matcher should accept saves may be out-of-order

Reviewed by: Joshua M. Clulow <josh@sysmgr.org>

Reviewed by: Robert Mustacchi <rm@joyent.com>

```
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25 SRCS = kvm_amd64dep.c \
26         kvm_isadep.c \
27         mdb_amd64util.c \
28         proc_amd64dep.c
29         proc_amd64dep.c \
30         saveargs.c
```

```
31 %.o: %.c
32     $(COMPILE.c) $<
33     $(CTFCONVERT_O)
```

```
35 %.o: ../../mdb/%.c
36     $(COMPILE.c) $<
37     $(CTFCONVERT_O)
```

```
40 %.o: $(SRC)/common/saveargs/%.c
41     $(COMPILE.c) $<
42     $(CTFCONVERT_O)
```

```
39 %.ln: %.c
40     $(LINT.c) -c $<
```

```
42 %.ln: ../../mdb/%.c
43     $(LINT.c) -c $<
```

```
50 %.ln: $(SRC)/common/saveargs/%.c
51     $(LINT.c) -c $<
```

```
45 include ../../.../Makefile.cmd
46 include ../../.../Makefile.cmd.64
47 include ../../Makefile.amd64
48 include ../../.../Makefile.mdb
```

1

new/usr/src/cmd/mdb/intel/amd64/mdb/Makefile

50 CPPFLAGS += -I../../mdb

51 LDLIBS += -lsaveargs

59 CPPFLAGS += -I\$(SRC)/common/saveargs

53 install: all \$(ISAEXEC) \$(ROOTPROG64) \$(ROOTLINK64)

2

```
*****
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26 include ../Makefile.master

28 # Note that libcurses installs commands along with its library.
29 # This is a minor bug which probably should be fixed.
30 # Note also that a few extra libraries are kept in cmd source.
31 #
32 # Certain libraries are linked with, hence depend on, other libraries.
33 #
34 # Although we have historically used .WAIT to express dependencies, it
35 # reduces the amount of parallelism and thus lengthens the time it
36 # takes to build the libraries. Thus, we now require that any new
37 # libraries explicitly call out their dependencies. Eventually, all
38 # the library dependencies will be called out explicitly. See
39 # "Library interdependencies" near the end of this file.
40 #
41 # Aside from explicit dependencies (and legacy .WAITs), all libraries
42 # are built in parallel.
43 #
44 .PARALLEL:

46 #
47 # The $(CLOSED_BUILD) additions to SUBDIRS & MSGSUBDIRS are unfortunate,
48 # but required due to the "dependencies" of using .WAIT to barrier the
49 # parallel dmake builds. once 4631488 has been fixed, they can be
50 # consolidated into one $(CLOSED_BUILD)SUBDIRS += (all closed libs) as
51 # shown in HDRSUBDIRS
52 #
53 SUBDIRS= \
54     common          .WAIT  \
55     ./cmd/sgs/libconv .WAIT \
56     ./cmd/sgs/libdl  .WAIT \
58 SUBDIRS += \
```

```
59      libc          .WAIT  \
60      ./cmd/sgs/libelf .WAIT \
61      c_synonyms   \
62      libmd        \
63      libmd5       \
64      librsm       \
65      libmp        \
66      libnsl       \
67      libsecdb     \
68      librpcsvc    \
69      libsocket    \
70      libscctp     \
71      libsip       \
72      libcommputil \
73      libresolv    \
74      libresolv2   \
75      libw         \
76      libintl      \
77      ./cmd/sgs/librtld_db \
78      libaio       \
79      libast       \
80      libdll       \
81      libcmd       \
82      libshell     \
83      libsum       \
84      libert      \
85      libadm       \
86      libctf       \
87      libdtrace    \
88      libdtrace_jni \
89      libcurses   \
90      libtermcap   \
91      libgen       \
92      libgss       \
93      libpam       \
94      libuuid      \
95      libthread    \
96      libpthread   \
97      libslp        \
98      libbsdmalloc \
99      libdoor      \
100     libdevinfo   \
101     libldadm    \
102     libdlpi      \
103     libeti       \
104     libcrypt     \
105     libdns_sd    \
106     libefi       \
107     libfstyp    \
108     libwanboot  \
109     libwanbootutil \
110     libcryptoutil \
111     libinetutil \
112     libipadm    \
113     libipmp     \
114     libiscsit   \
115     libkmf      \
116     libkstat    \
117     libkvm      \
118     liblml      \
119     libmalloc   \
120     libmapmalloc \
121     libmtmalloc \
122     libnls      \
123     libnwam     \
124     libsbmbios  \
```

```

125     libtecla \
126     libumem \
127     libvpair .WAIT \
128     libexacct \
129     libssasl \
130     libldap5 \
131     libldap .WAIT \
132     libbsm \
133     libsys \
134     libsyssevent \
135     libnisdb \
136     libpool \
137     libpp \
138     libproc \
139     libproject \
140     libsendfile \
141     nameaddr \
142     ncad_addr \
143     hbaapi \
144     smba \
145     sun_fc \
146     sun_sas \
147     gss_mechs/mech_krb5 .WAIT \
148     libkrb5 .WAIT \
149     krb5 .WAIT \
150     lib smbfs \
151     libfcoe \
152     libsrpt \
153     libstmf \
154     libstmfproxy \
155     libnsctl \
156     libunistat \
157     libdscfg \
158     librdc \
159     libinstzones \
160     libpkg

162 SUBDIRS += \
163     passwdutil \
164     pam_modules \
165     crypt_modules \
166     libadt_jni \
167     abi \
168     auditd_plugins \
169     libvolmgmt \
170     libdevice \
171     libdevid \
172     libdhcpsvc \
173     libc_db \
174     libndmp \
175     libsec \
176     libtnfprobe \
177     libtnf \
178     libtnfctl \
179     libdhcpagent \
180     libdhcpdu \
181     libdhcputil \
182     libxnet \
183     libipsecutil \
184 $(CLOSED_BUILD)SUBDIRS += \
185     $(CLOSED)/lib/libike
186 SUBDIRS += \
187     nsswitch \
188     print \
189     libuutil \
190     libscf \

```

```

191     libinetsvc \
192     librestart \
193     libshed \
194     libelfsign \
195     pkcs11 .WAIT \
196     libpctx .WAIT \
197     libpcp \
198     watchmalloc \
199     extendedFILE \
200     madv \
201     mpss \
202     libdisasm \
203     libwrap \
204     libxcurses \
205     libxcurses2 \
206     libbrand .WAIT \
207     libzonecfg \
208     libzoneinfo \
209     libzonestat \
210     libtsnet \
211     libtsol \
212     gss_mechs/mech_spnego \
213     gss_mechs/mech_dummy \
214     gss_mechs/mech_dh \
215     rpcsec_gss \
216     libraiddcfg .WAIT \
217     librcn .WAIT \
218     libcfgadm .WAIT \
219     libpicl .WAIT \
220     libpicltree .WAIT \
221     raidcfg_plugins \
222     cfgadm_plugins \
223     libmail \
224     lvm \
225     libsmedia \
226     libipp \
227     libdiskmgt \
228     liblgrp \
229     libfsmgmt \
230     fm \
231     libavl \
232     libcmdutils \
233     libcontract \
234     ./cmd/sendmail/libmilter \
235     sasl_plugins \
236     udapl \
237     libzpool \
238     libzfs_core \
239     libzfs \
240     libbe \
241     pylibbe \
242     libzfs_jni \
243     pyzfs \
244     pysolaris \
245     libmapid \
246     brand \
247     policykit \
248     hal \
249     libshare \
250     libsqlite \
251     libidmap \
252     libadutil \
253     libipmi \
254     libexacct/demo \
255     libvrrpadm \
256     libvscan \

```

```

257     libgrubmgmt      \
258     smbdrv           \
259     libilb            \
260     scsi              \
261     libima            \
262     libsun_ima        \
263     mpapi             \
264     librstp           \
265     libreparse         \
266     libhotplug         \
267     libfruutils       .WAIT  \
268     libfru             \
269     $( $(MACH)_SUBDIRS)

271 i386_SUBDIRS= \
272     libntfs           \
273     libparted          \
274     libfdisk           \
275     libsaveargs         \
276     libfdisk

277 sparc_SUBDIRS=.WAIT \
278     efcode            \
279     libds              \
280     libdscp             \
281     libprtdiag        .WAIT  \
282     libprtdiag_psr      \
283     libpri             \
284     librsc              \
285     storage             \
286     libpcp              \
287     libtsalarm          \
288     libv12n

290 FM_sparc_DEPLIBS= libpri

292 fm: \
293     libexacct          \
294     libipmi             \
295     libzfs              \
296     scsi                \
297     $(FM_$(MACH)_DEPLIBS)

299 #
300 # Create a special version of $(SUBDIRS) with no .WAIT's, for use with the
301 # clean and clobber targets (for more information, see those targets, below).
302 #
303 NOWAIT_SUBDIRS= $(SUBDIRS:.WAIT=)

305 DCSUBDIRS = \
306     lvm

308 MSGSUBDIRS= \
309     abi               \
310     auditd_plugins   \
311     brand             \
312     cfgadm_plugins    \
313     gss_mechs/mech_dh \
314     gss_mechs/mech_krb5 \
315     krb5              \
316     libast             \
317     libbsm             \
318     libc               \
319     libcfgadm          \
320     libcmd              \
321     libcontract         \

```

```

322     libcurses          \
323     libdhcpsvc         \
324     libdhcputil        \
325     libipsecutil       \
326     libdiskmgt         \
327     libdladm           \
328     libdll              \
329     libgrubmgmt        \
330     libgss              \
331     libidmap            \
332     libipmp             \
333     libilb              \
334     libinetutil         \
335     libinstzones        \
336     libipadm            \
337     libns1              \
338     libnwam             \
339     libpam              \
340     libpicl             \
341     libpool             \
342     libpkg              \
343     libpp               \
344     libscf              \
345     libsasl             \
346     libldap5            \
347     libsecdb            \
348     libshare            \
349     libshell            \
350     libslapd            \
351     libslp               \
352     libsmbf5            \
353     libsmmedia          \
354     libsun               \
355     libtsol              \
356     libutil             \
357     libvrrpadm          \
358     libvscan             \
359     libwanboot          \
360     libwanbootutil       \
361     libzfs              \
362     libzonecfg          \
363     lvm                 \
364     madv                \
365     mpss                \
366     pam_modules          \
367     pyzfs              \
368     pysolaris           \
369     rpcsec_gss           \
370     libreparse           \
371     MSGSUBDIRS += \
372     $( $(MACH)_MSGSUBDIRS)

374 sparc_MSGSUBDIRS= \
375     libprtdiag          \
376     libprtdiag_psr        \
378 i386_MSGSUBDIRS= libfdisk

380 HDRSUBDIRS= \
381     auditd_plugins      \
382     libast              \
383     libbrand            \
384     libbsm              \
385     libc                \
386     libcmd              \
387     libcmdutils          \

```

```

388 libcommputil    \
389 libcontract     \
390 libcpc          \
391 libctf          \
392 libcurses        \
393 libtermcap       \
394 libcryptoutil   \
395 libdevice        \
396 libdevid         \
397 libdevinfo       \
398 libdiskmgt      \
399 libldadm         \
400 libldll          \
401 libldlp          \
402 libdhcpagent    \
403 libdhcpsvc      \
404 libdhcputil     \
405 libdisasm        \
406 libdns_sd         \
407 libdscfg         \
408 libdtrace        \
409 libdtrace_jni    \
410 libelfsign       \
411 libeti           \
412 libfru           \
413 libfstyp         \
414 libgen           \
415 libipadm         \
416 libipsecutil    \
417 libinetsvc       \
418 libinetutil     \
419 libinstzones    \
420 libipmi          \
421 libipmp          \
422 libipp           \
423 libiscsit        \
424 libkstat         \
425 libkvm           \
426 libmail          \
427 libmd             \
428 libmtmalloc      \
429 libndmp          \
430 libnvpair        \
431 libnsctl         \
432 libns1            \
433 libnwam          \
434 libpam           \
435 libpctx          \
436 libpicl          \
437 libpiclmtree     \
438 libpool          \
439 libpp             \
440 libproc          \
441 libraidcfg      \
442 librcm           \
443 librfdc          \
444 libscf           \
445 libsip           \
446 libsbios          \
447 librestart        \
448 librpccsvc       \
449 librsm            \
450 librstp           \
451 libssasl          \
452 libsec            \
453 libshell          \

```

```

454 libslp           \
455 libsmmedia       \
456 libsocket         \
457 libsqlite         \
458 libfcoe          \
459 libsrpt          \
460 libstmf           \
461 libstmfproxy     \
462 libsum           \
463 libsysevent      \
464 libtecla          \
465 libtnf            \
466 libtnfctl        \
467 libtnfprobe      \
468 libtsnet          \
469 libtsol           \
470 libvrrpadm       \
471 libvolmgt         \
472 libumem          \
473 libunistat       \
474 libutil           \
475 libwanboot        \
476 libwanbootutil   \
477 libwrap           \
478 libxcurses2       \
479 libzfs           \
480 libzfs_core       \
481 libzfs_jni        \
482 libzoneinfo       \
483 libzonestat      \
484 hal               \
485 policykit         \
486 lvm               \
487 pkcs11            \
488 passwdutil        \
489 ./cmd/sendmail/libmilter \
490 fm                \
491 udapl             \
492 libmapid          \
493 libkrb5           \
494 lib smbefs         \
495 libshare          \
496 libidmap          \
497 libvscan          \
498 libgrubmgmt      \
499 smbsrv           \
500 libilb            \
501 scsi              \
502 hbaapi           \
503 smhba             \
504 libima            \
505 libsun_ima        \
506 mpapi             \
507 libreparse        \
508 $( $(MACH)_HDRSUBDIRS ) \
510 $(CLOSED_BUILD)HDRSUBDIRS += \
511 $(CLOSED)/lib/libike \
513 i386_HDRSUBDIRS= \
514 libparted          \
515 libfdisk           \
516 libsaveargs        \
514 libfdisk          \
518 sparc_HDRSUBDIRS= \

```

```

519     libds      \
520     libdscp   \
521     libpri    \
522     libv12n   \
523     storage

525 all :=           TARGET= all
526 check :=         TARGET= check
527 clean :=         TARGET= clean
528 clobber :=       TARGET= clobber
529 install :=        TARGET= install
530 install_h :=      TARGET= install_h
531 lint :=          TARGET= lint
532 _dc :=           TARGET= _dc
533 _msg :=          TARGET= _msg

535 .KEEP_STATE:

537 #
538 # For the all and install targets, we clearly must respect library
539 # dependencies so that the libraries link correctly. However, for
540 # the remaining targets (check, clean, clobber, install_h, lint, _dc
541 # and _msg), libraries do not have any dependencies on one another
542 # and thus respecting dependencies just slows down the build.
543 # As such, for these rules, we use pattern replacement to explicitly
544 # avoid triggering the dependency information. Note that for clean,
545 # clobber and lint, we must use ${NOWAIT_SUBDIRS} rather than
546 # ${SUBDIRS}, to prevent '.WAIT' from expanding to '.WAIT-nodepend'.
547 #

549 all:             ${SUBDIRS}
551 install:         ${SUBDIRS} .WAIT install_extra

553 # extra libraries kept in other source areas
554 install_extra:
555     @cd ../cmd/sgs; pwd; $(MAKE) install_lib
556     @pwd

558 clean clobber lint: ${NOWAIT_SUBDIRS:%=%-nodepend}

560 install_h check: ${HDRSUBDIRS:%=%-nodepend}

562 _msg:            ${MSGSUBDIRS:%=%-nodepend} .WAIT _dc

564 _dc:             ${DCSUBDIRS:%=%-nodepend}

566 #
567 # Library interdependencies are called out explicitly here
568 #
569 auditd_plugins: libbsm libns1 libsecdb
570 gss_mechs/mech_krb5: libgss libns1 libsocket libresolv pkcs11
571 libadt_jni:      libbsm
572 libast:          libsocket
573 libadutil:       libldap5 libresolv libsocket libns1
574 nsswitch:        libadutil libidmap
575 libbe:           libzfs
576 libbsm:          libtsol
577 libcmd:          libsum libast libsocket libns1
578 libcmduils:      libavl
579 libcontract:     libnvpair
580 libdevid:        libdevinfo
581 libdevinfo:       libnvpair libsec
582 libdhcpgagent:   libsocket libdhcputil libuuuid libdlpi libcontract
583 libdhcpsvc:      libinetutil
584 libdhcputil:     libns1 libgen libinetutil libdlpi

```

```

585 libdladm:         libdevinfo libinetutil libsocket libscf librcm libnvpair \
586 libexacct:        libexacct libns1 libkstat libcurses
587 libdll:           libast
588 libdlpi:          libinetutil libdladm
589 libds:            libsysevent
590 libdscfg:         libnsctl libunistat libsocket libns1
591 libdtrace:         libproc libgen libctf
592 libdtrace_jni:    libutil libdtrace
593 libefi:           libuuid
594 libfstyp:         libnvpair
595 libelfsign:       libcryptoutil libkmf
596 libidmap:         libadutils libldap5 libavl libsdap libuutil
597 libipadm:         libns1 libinetutil libsocket libdlpi libnvpair libdhcpgagent \
598 libldadm:          libsecdb
599 libiscsit:        libc libnvpair libstmf libuuuid libns1
600 libkmf:           libcryptoutil pkcs11
601 libns1:           libmd5
602 libapid:          libresolv
603 librdc:           libsocket libns1 libnsctl libunistat libdscfg
604 libuid:           libdlpi
605 ${CLOSED_BUILD}libike: libipsecutil libxnet libcryptoutil
606 libinetutil:      libsocket
607 libipsecutil:     libtecla libsocket
608 libinstzones:    libzonecfg libcontract
609 libpkg:           libwanboot libscf libadm
610 libnwam:          libscf
611 libsecdb:         libns1
612 libsasl:          libgss libsocket pkcs11 libmd
613 sasl_plugins:    pkcs11 libgss libsocket libsasl
614 libstcp:          libsocket
615 libshell:         libast libcmd libdl1 libsocket libsecdb
616 libsp:            libmd5
617 libsmfps:         libcmduils libsocket libns1 libkrb5
618 libsocket:        libns1
619 libstmpx:         libstmf libsocket libns1 libpthread
620 libsum:           libast
621 libsysevent:      libsecdb
622 libldap5:         libsasl libsocket libns1 libmd
623 libldap:          libldap5 libtsol libns1 libc libscf libresolv
624 libpool:          libnvpair libexacct
625 libpp:            libast
626 libzonecfg:       libc libsocket libuuuid libnvpair libsysevent libsec \
627 libbrand libpool libscf
628 libproc:          ..../cmd/sgs/librtld_db ..../cmd/sgs/libelf libctf libsaveargs
629 libprojct:        ..../cmd/sgs/librtld_db ..../cmd/sgs/libelf libctf
630 libtermcap:       libcurses
631 libtnt:           libns1 libtsol libsecdb
632 libwrap:          libns1 libsocket
633 libwanboot:       libnvpair libresolv libns1 libsocket libdevinfo libinetutil \
634 libdhcputil:      libns1
635 libwanbootutil:   libns1
636 pam_modules:     libproject passwdutil smbsrv
637 libscf:           libuutil libmd libgen libsmbios libns1
638 libinetsvc:      libscf
639 librestart:       libuutil libscf
640 libsaveargs:      libdisasm
641 #endif /* ! codereview */
642 ..../cmd/sgs/libdl: ..../cmd/sgs/libconv
643 ..../cmd/sgs/libelf: ..../cmd/sgs/libconv
644 pkcs11:           libcryptoutil
645 print:            libldap5
646 udapl/udapl_tavor: udapl/libdat
647 libzfs:            libdevid libgen libnvpair libuutil \
648 libadm libavl libefi libidmap libmd libzfs_core
649 libzfs_core:      libnvpair

```

```
650 libzfs_jni: libdiskmgt libnvpair libzfs
651 libzpool: libavl libumem libnvpair libcmdutils
652 libsec: libavl libidmap
653 brand: libc libsocket
654 libshare: libscf libzfs libuuid libfsmgt libsecdb libumem libsmvfs
655 libexecacct/demo: libexecacct libproject libsocket libnsl
656 libtsalarm: libpcp
657 smbsrv: libsocket libnsl libmd libxnet libpthread libert \
658 libshare libidmap pkcs11 libsqlite libcryptoutil \
659 libreparse libcmdutils
660 libv12n: libds libuid
661 libvrrpadm: libsocket libladm libscf
662 libvscan: libscf
663 libfru: libfruutils
664 scsi: libnvpair libfru
665 mpapi: libpthread libdevinfo libsysevent libnvpair
666 sun_fc: libdevinfo libsysevent libnvpair
667 libsun_ima: libdevinfo libsysevent libnsl
668 sun_sas: libdevinfo libsysevent libnvpair libkstat libdevid
669 libgrubmgt: libdevinfo libzfs libfstyp
670 pylibbe: libbe libzfs
671 pyzfs: libnvpair libzfs
672 pysolaris: libsec libidmap
673 libreparse: libnvpair
674 libhotplug: libnvpair
675 cfgadm_plugins: libhotplug
676 libilb: libsocket
677 $(INTEL_BUILD)libdiskmgt:libfdisk

679 #
680 # The reason this rule checks for the existence of the
681 # Makefile is that some of the directories do not exist
682 # in certain situations (e.g., exportable source builds,
683 # OpenSolaris).
684 #
685 $(SUBDIRS): FRC
686     @if [ -f $@/Makefile ]; then \
687         cd $@; pwd; $(MAKE) $(TARGET); \
688     else \
689         true; \
690     fi

692 $(SUBDIRS:%%=-nodepend):
693     @if [ -f ${@:%-nodepend=%}/Makefile ]; then \
694         cd ${@:%-nodepend=%}; pwd; $(MAKE) $(TARGET); \
695     else \
696         true; \
697     fi

699 FRC:
```

```
new/usr/src/lib/libdisasm/common/libdisasm.h
```

```
*****
```

```
2389 Mon Mar 4 20:43:29 2013
```

```
new/usr/src/lib/libdisasm/common/libdisasm.h
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
```

```
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
```

```
Reviewed by: Robert Mustacchi <rm@joyent.com>
```

```
*****
```

```
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```

```
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25 */
```

```
27 #ifndef _LIBDISASM_H
28 #define _LIBDISASM_H
```

```
30 #pragma ident "%Z%%M% %I%      %E% SMI"
```

```
30 #include <sys/types.h>
```

```
32 #ifdef __cplusplus
33 extern "C" {
34 #endif
```

```
36 typedef struct dis_handle dis_handle_t;
```

```
38 #define DIS_DEFAULT          0x0
```

```
40 /* SPARC disassembler flags */
41 #define DIS_SPARC_V8          0x01
42 #define DIS_SPARC_V9          0x02
43 #define DIS_SPARC_V9_SGI      0x04
44 #define DIS_SPARC_V9_OPL      0x08
```

```
46 /* x86 disassembler flags (mutually exclusive) */
47 #define DIS_X86_SIZE16         0x08
48 #define DIS_X86_SIZE32         0x10
49 #define DIS_X86_SIZE64         0x20
```

```
51 /* generic disassembler flags */
52 #define DIS_OCTAL              0x40
53 #define DIS_NOIMMSYM           0x80
```

```
55 typedef int (*dis_lookup_f)(void *, uint64_t, char *, size_t, uint64_t *,
56     size_t *);
```

```
1
```

```
new/usr/src/lib/libdisasm/common/libdisasm.h
```

```
57 typedef int (*dis_read_f)(void *, uint64_t, void *, size_t);
59 extern dis_handle_t *dis_handle_create(int, void *, dis_lookup_f, dis_read_f);
60 extern void dis_handle_destroy(dis_handle_t *);
62 extern int dis_disassemble(dis_handle_t *, uint64_t, char *, size_t);
63 extern uint64_t dis_previnstr(dis_handle_t *, uint64_t, int n);
64 extern void dis_set_data(dis_handle_t *, void *);
65 extern void dis_flags_set(dis_handle_t *, int f);
66 extern void dis_flags_clear(dis_handle_t *, int f);
67 extern int dis_max_instlen(dis_handle_t *);
68 extern int dis_instlen(dis_handle_t *, uint64_t);
69 #endif /* ! codereview */

71 /* libdisasm errors */
72 #define E_DIS_NOMEM           1      /* Out of memory */
73 #define E_DIS_INVALFLAG        2      /* Invalid flag for this architecture */

75 extern int dis_errno(void);
76 extern const char *dis_strerror(int);

78 #ifdef __cplusplus
79 }
80 #endif

82 #endif /* _LIBDISASM_H */
```

```
2
```

```
*****
1507 Mon Mar  4 20:43:30 2013
new/usr/src/lib/libdisasm/common/mapfile-vers
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
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23 #

25 #
26 # MAPFILE HEADER START
27 #
28 # WARNING: STOP NOW. DO NOT MODIFY THIS FILE.
29 # Object versioning must comply with the rules detailed in
30 #
31 #     usr/src/lib/README.mapfiles
32 #
33 # You should not be making modifications here until you've read the most current
34 # copy of that file. If you need help, contact a gatekeeper for guidance.
35 #
36 # MAPFILE HEADER END
37 #

39 $mapfile_version 2

41 SYMBOL_VERSION SUNWprivate_1.1 {
42     global:
43         dis_disassemble;
44         dis_errno;
45         dis_handle_create;
46         dis_handle_destroy;
47         dis_instrlen;
48 #endif /* ! codereview */
49         dis_max_instrlen;
50         dis_previnstr;
51         dis_set_data;
52         dis_flags_set;
53         dis_flags_clear;
54         dis_strerror;
55     local:
56         *;
57 },
```

```
new/usr/src/lib/libdisasm/i386/dis_i386.c
```

```
1
```

```
*****
```

```
5644 Mon Mar 4 20:43:30 2013
```

```
new/usr/src/lib/libdisasm/i386/dis_i386.c
```

```
3544 save-args matcher could be considerably more robust
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```
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
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25 */
```

```
27 #pragma ident "%Z%%M% %I%      %E% SMI"
```

```
27 #include <libdisasm.h>  
28 #include <stdlib.h>  
29 #include <stdio.h>
```

```
31 #include "dis_tables.h"  
32 #include "libdisasm_impl.h"
```

```
34 struct dis_handle {  
35     void          *dh_data;  
36     int           dh_flags;  
37     dis_lookup_f  dh_lookup;  
38     dis_read_f   dh_read;  
39     int           dh_mode;  
40     dis86_t       dh_dis;  
41     uint64_t      dh_addr;  
42     uint64_t      dh_end;  
43 };
```

```
unchanged_portion_omitted
```

```
247 int  
248 dis_instrlen(dis_handle_t *dhp, uint64_t pc)  
249 {  
250     if (dis_disassemble(dhp, pc, NULL, 0) != 0)  
251         return (-1);  
253     return (dhp->dh_addr - pc);  
254 }  
255 #endif /* ! codereview */
```

```
*****
8415 Mon Mar  4 20:43:30 2013
new/usr/src/lib/libdisasm/sparc/dis_sparc.c
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
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25 /*
26 */
27 /*
28 * Copyright 2007 Jason King. All rights reserved.
29 * Use is subject to license terms.
30 */
31
32 #pragma ident "%Z%%M% %I%      %E% SMI"
33
34 * The sparc disassembler is mostly straightforward, each instruction is
35 * represented by an inst_t structure. The inst_t definitions are organized
36 * into tables. The tables are correspond to the opcode maps documented in the
37 * various sparc architecture manuals. Each table defines the bit range of the
38 * instruction whose value act as an index into the array of instructions. A
39 * table can also refer to another table if needed. Each table also contains
40 * a function pointer of type format_fcn that knows how to output the
41 * instructions in the table, as well as handle any synthetic instructions
42 *
43 * Unfortunately, the changes from sparcv8 -> sparcv9 not only include new
44 * instructions, they sometimes renamed or just reused the same instruction to
45 * do different operations (i.e. the sparcv8 coprocessor instructions). To
46 * accommodate this, each table can define an overlay table. The overlay table
47 * is a list of (table index, architecture, new instruction definition) values.
48 *
49 * Traversal starts with the first table,
50 * get index value from the instruction
51 * if an relevant overlay entry exists for this index,
52 *     grab the overlay definition
53 * else
54 *     grab the definition from the array (corresponding to the index value)
55 *
```

```
56 * If the entry is an instruction,
57 *     call print function of instruction.
58 * If the entry is a pointer to another table
59 *     traverse the table
60 * If not valid,
61 *     return an error
62 *
63 *
64 * To keep dis happy, for sparc, instead of actually returning an error, if
65 * the instruction cannot be disassembled, we instead merely place the value
66 * of the instruction into the output buffer.
67 *
68 * Adding new instructions:
69 *
70 * With the above information, it hopefully makes it clear how to add support
71 * for decoding new instructions. Presumably, with new instructions will come
72 * a new disassembly mode (I.e. DIS_SPARC_V8, DIS_SPARC_V9, etc.).
73 *
74 * If the disassembled format does not correspond to one of the existing
75 * formats, a new formatter will have to be written. The 'flags' value of
76 * inst_t is intended to instruct the corresponding formatter about how to
77 * output the instruction.
78 *
79 * If the corresponding entry in the correct table is currently unoccupied,
80 * simply replace the INVALID entry with the correct definition. The INST and
81 * TABLE macros are suggested to be used for this. If there is already an
82 * instruction defined, then the entry must be placed in an overlay table. If
83 * no overlay table exists for the instruction table, one will need to be
84 * created.
85 */
86 #include <libdisasm.h>
87 #include <stdlib.h>
88 #include <stdio.h>
89 #include <sys/types.h>
90 #include <sys/bytorder.h>
91 #include <string.h>
92
93 #include "libdisasm_impl.h"
94 #include "dis_sparc.h"
95
96 static const inst_t *dis_get_overlay(dis_handle_t *, const table_t *,
97                                     uint32_t);
98 static uint32_t dis_get_bits(uint32_t, int, int);
99
100 #if !defined(DIS_STANDALONE)
101 static void do_binary(uint32_t);
102 #endif /* DIS_STANDALONE */
103
104 dis_handle_t *
105 dis_handle_create(int flags, void *data, dis_lookup_f lookup_func,
106                    dis_read_f read_func)
107 {
108
109 #if !defined(DIS_STANDALONE)
110     char *opt = NULL;
111     char *opt2, *save, *end;
112 #endif
113     dis_handle_t *dhp;
114
115     if ((flags & (DIS_SPARC_V8|DIS_SPARC_V9|DIS_SPARC_V9_SGI)) == 0) {
116         (void) dis_seterrno(E_DIS_INVALFLAG);
117         return (NULL);
118     }
119
120     if ((dhp = dis_zalloc(sizeof (struct dis_handle))) == NULL) {
```

new/usr/src/lib/libdisasm/sparc/dis_sparc.c

```
122     (void) dis_seterrno(E_DIS_NOMEM);
123     return (NULL);
124 }
125
126 dhp->dh_lookup = lookup_func;
127 dhp->dh_read = read_func;
128 dhp->dh_flags = flags;
129 dhp->dh_data = data;
130 dhp->dh_debug = DIS_DEBUG_COMPAT;
131
132 #if !defined(DIS_STANDALONE)
133     opt = getenv("_LIBDISASM_DEBUG");
134     if (opt == NULL)
135         return (dhp);
136
137     opt2 = strdup(opt);
138     if (opt2 == NULL) {
139         dis_handle_destroy(dhp);
140         (void) dis_seterrno(E_DIS_NOMEM);
141         return (NULL);
142     }
143     save = opt2;
144
145     while (opt2 != NULL) {
146         end = strchr(opt2, ',');
147
148         if (end != 0)
149             *end++ = '\0';
150
151         if (strcasecmp("synth-all", opt2) == 0)
152             dhp->dh_debug |= DIS_DEBUG_SYN_ALL;
153
154         if (strcasecmp("compat", opt2) == 0)
155             dhp->dh_debug |= DIS_DEBUG_COMPAT;
156
157         if (strcasecmp("synth-none", opt2) == 0)
158             dhp->dh_debug &= ~(DIS_DEBUG_SYN_ALL|DIS_DEBUG_COMPAT);
159
160         if (strcasecmp("binary", opt2) == 0)
161             dhp->dh_debug |= DIS_DEBUG_PRTBIN;
162
163         if (strcasecmp("format", opt2) == 0)
164             dhp->dh_debug |= DIS_DEBUG_PRTFMT;
165
166         if (strcasecmp("all", opt2) == 0)
167             dhp->dh_debug = DIS_DEBUG_ALL;
168
169         if (strcasecmp("none", opt2) == 0)
170             dhp->dh_debug = DIS_DEBUG_NONE;
171
172         opt2 = end;
173     }
174     free(save);
175 #endif /* DIS_STANDALONE */
176     return (dhp);
177 }
178 }  
_____unchanged_portion_omitted_____  
229 /* ARGSUSED */
230 int
231 dis_instrlen(dis_handle_t *dhp, uint64_t pc)
232 {
233     return (4);
234 }
```

3

```
new/usr/src/lib/libdisasm/sparc/dis_sparc.c
235 #endif /* ! codereview */
236
237 int
238 dis_disassemble(dis_handle_t *dhp, uint64_t addr, char *buf, size_t buflen)
239 {
240     const table_t *tp = &initial_table;
241     const inst_t *inp = NULL;
242
243     uint32_t instr;
244     uint32_t idx = 0;
245
246     if (dhp->dh_read(dhp->dh_data, addr, &instr, sizeof (instr)) !=
247         sizeof (instr))
248         return (-1);
249
250     dhp->dh_buf = buf;
251     dhp->dh buflen = buflen;
252     dhp->dh_addr = addr;
253
254     buf[0] = '\0';
255
256     /* this allows sparc code to be tested on x86 */
257     instr = BE_32(instr);
258
259 #if !defined(DIS_STANDALONE)
260     if ((dhp->dh_debug & DIS_DEBUG_PRTBIN) != 0)
261         do_binary(instr);
262 #endif /* DIS_STANDALONE */
263
264     /* CONSTCOND */
265     while (1) {
266         idx = dis_get_bits(instr, tp->tbl_field, tp->tbl_len);
267         inp = &tp->tbl_inp[idx];
268
269         inp = dis_get_overlay(dhp, tp, idx);
270
271         if ((inp->in_type == INST_NONE) ||
272             ((inp->in_arch & dhp->dh_flags) == 0))
273             goto error;
274
275         if (inp->in_type == INST_TBL) {
276             tp = inp->in_data.in_tbl;
277             continue;
278         }
279
280         break;
281     }
282
283     if (tp->tbl_fmt(dhp, instr, inp, idx) == 0)
284         return (0);
285
286 error:
287     (void) sprintf(buf, buflen,
288                   ((dhp->dh_flags & DIS_OCTAL) != 0) ? "0%011lo" : "0x%08lx",
289                   instr);
290
291     return (0);
292 }
293
294 static uint32_t
295 dis_get_bits(uint32_t instr, int offset, int length)
296 {
297     uint32_t mask, val;
298     int i;
299
300     for (i = 0, mask = 0; i < length; ++i)
```

4

```
302         mask |= (1UL << i);
304     mask = mask << (offset - length + 1);
306     val = instr & mask;
308     val = val >> (offset - length + 1);
310     return (val);
311 }

313 static const inst_t *
314 dis_get_overlay(dis_handle_t *dhp, const table_t *tp, uint32_t idx)
315 {
316     const inst_t *ip = &tp->tbl_inp[idx];
317     int i;

319     if (tp->tbl_ovp == NULL)
320         return (ip);

322     for (i = 0; tp->tbl_ovp[i].ov_idx != -1; ++i) {
323         if (tp->tbl_ovp[i].ov_idx != idx)
324             continue;

326         if ((tp->tbl_ovp[i].ov_inst.in_arch & dhp->dh_flags) == 0)
327             continue;

329         ip = &tp->tbl_ovp[i].ov_inst;
330         break;
331     }
333     return (ip);
334 }

336 #if !defined(DIS_STANDALONE)
337 static void
338 do_binary(uint32_t instr)
339 {
340     (void) fprintf(stderr, "DISASM: ");
341     prt_binary(instr, 32);
342     (void) fprintf(stderr, "\n");
343 }
344#endif /* DIS_STANDALONE */
```

new/usr/src/lib/libproc/Makefile.com

```
*****
2818 Mon Mar  4 20:43:31 2013
new/usr/src/lib/libproc/Makefile.com
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
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22 # Copyright (c) 1997, 2010, Oracle and/or its affiliates. All rights reserved.
23 # Copyright 2012 DEY Storage Systems, Inc. All rights reserved.
24 #
25 LIBRARY = libproc.a
26 VERS = .1
27
28 CMNOBJJS =
29     \
30     P32ton.o          \
31     Pcontrol.o        \
32     Pcore.o           \
33     Pexecename.o      \
34     Pfinfo.o          \
35     Pgcore.o          \
36     Pidle.o           \
37     Pisprodir.o       \
38     Plwpregs.o        \
39     Pservice.o         \
40     Psymtab.o          \
41     Psymtab_machelf32.o \
42     $(CMNOBJJS64)      \
43     Pscantext.o        \
44     Pstack.o           \
45     Psyscall.o          \
46     Putil.o            \
47     Pzone.o            \
48     pr_door.o          \
49     pr_exit.o           \
50     pr_fcntl.o          \
51     pr_getitimer.o      \
52     pr_getrctl.o        \
53     pr_getrlimit.o      \
54     pr_getsockname.o    \
55     pr_ioctl.o          \
56     pr_lseek.o           \
57     pr_memcntl.o        \
58     pr_meminfo.o         \

```

1

new/usr/src/lib/libproc/Makefile.com

```
59     pr_mmap.o          \
60     pr_open.o           \
61     pr_pbind.o          \
62     pr_rename.o          \
63     pr_sigaction.o       \
64     pr_stat.o           \
65     pr_statvfs.o         \
66     pr_tasksys.o         \
67     pr_waitid.o          \
68     proc_get_info.o       \
69     proc_names.o          \
70     proc_arg.o           \
71     proc_set.o           \
72     proc_stdio.o          \
73
74 ISAOBJS = \
75     Pisadep.o
76
77 amd64_SAVEOBJS = \
78     saveargs.o
79
80 amd64_CPPFLAGS = -I$(SRC)/common/saveargs
81
82 SAVEOBJS = $($MACH64)_SAVEOBJS
83
84 OBJECTS = $(CMNOBJJS) $(ISAOBJS) $(SAVEOBJS)
85
86 # include library definitions
87 include ../../Makefile.lib
88 include ../../Makefile.rootfs
89
90 SRCS = $(CMNOBJJS:%.o=../common/%.c) $(ISAOBJS:%.o=%c)
91
92 LIBS = $(DYNLIB) $(LINTLIB)
93 LDLIBS += -lrtl_db -lelf -lctf -lc
94 CPPFLAGS += $($MACH64)_CPPFLAGS
95
96 SRCDIR = ./common
97 $(LINTLIB) := SRCS = $(SRCDIR)/$(LINTSRC)
98
99 CFLAGS += $(CCVERBOSE)
100 CPPFLAGS += -I$(SRCDIR)
101
102 CERRWARN += -gcc=-Wno-uninitialized
103 CERRWARN += -gcc=-Wno-parentheses
104 CERRWARN += -gcc=-Wno-type-limits
105 CERRWARN += -gcc=-Wno-unused-label
106
107 # All interfaces are interposable, therefore don't allow direct binding to
108 # libproc. Disable libproc from directly binding to itself, but allow libperl
109 # to directly bind to its dependencies (ie. map -Bdirect -> -zdirect). Ensure
110 # lazy loading is established (which is enabled automatically with -Bdirect).
111 BDIRECT =
112 DYNFLAGS += $(BNODIRECT) $(ZDIRECT) $(ZLAZYLOAD)
113
114 .KEEP_STATE:
115 all: $(LIBS)
116 lint: lintcheck
117
118 # include library targets
119 include ../../Makefile.targ
120
121 objs/%.o pics/%.o: %.c
122     $(COMPILE.c) -o $@ $<
```

2

```
118      $(POST_PROCESS_O)  
120  objs/%.o pics/%.o: $(SRC)/common/saveargs/%.c  
121      $(COMPILE.c) -o $@ $<  
122      $(POST_PROCESS_O)
```

```
new/usr/src/lib/libproc/amd64/Makefile
```

```
1
```

```
*****
```

```
1141 Mon Mar 4 20:43:31 2013
```

```
new/usr/src/lib/libproc/amd64/Makefile
```

```
3544 save-args matcher could be considerably more robust
```

```
3545 save-args matcher should accept saves may be out-of-order
```

```
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
```

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Reviewed by: Robert Mustacchi <rm@joyent.com>
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```
*****
```

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24 #
25 # ident "%Z%%M% %I%      %E% SMI"
26 #

26 # This is a 64-bit build, and as such needs 64-bit ELF support
27 CMNOBJS64 =      Psymtab_machelf64.o

29 include ../Makefile.com
30 include ../../Makefile.lib.64

32 CPPFLAGS += -D_SYSCALL32
33 LDLIBS += -lsaveargs
34 #endif /* ! codereview */

36 install: all $(ROOTLIBS64) $(ROOTLINKS64)
```

new/usr/src/lib/libsaveargs/Makefile

```
*****  
1618 Mon Mar  4 20:43:31 2013  
new/usr/src/lib/libsaveargs/Makefile  
3544 save-args matcher could be considerably more robust  
3545 save-args matcher should accept saves may be out-of-order  
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>  
Reviewed by: Robert Mustacchi <rm@joyent.com>  
*****
```

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24 #  
25 #  
27 include ../Makefile.lib  
29 $(BUILD64)SUBDIRS += $(MACH64)  
31 all := TARGET= all  
32 clean := TARGET= clean  
33 clobber := TARGET= clobber  
34 delete := TARGET= delete  
35 install := TARGET= install  
36 lint := TARGET= lint  
37 _msg := TARGET= _msg  
38 package := TARGET= package  
40 LIBRARY= libsaveargs.a  
42 # definitions for install_h target  
43 HDRS= saveargs.h  
44 ROOTHDRDIR= $(ROOT)/usr/include  
45 ROOTHDRS= $(HDRS:=%$(ROOTHDRDIR)/%)  
46 CHECKHDRS= $(HDRS:=%h=common/%.check)  
48 $(ROOTHDRS) := FILEMODE= 644  
50 # install rule for install_h target  
51 $(ROOTHDRDIR)/%: common/%  
52   $(INS.file)  
54 .KEEP_STATE:  
56 all clean clobber delete install lint package: $(SUBDIRS)  
58 install_h: $(ROOTHDRS)
```

1

new/usr/src/lib/libsaveargs/Makefile

```
60 check: $(CHECKHDRS)  
62 $(SUBDIRS): FRC  
63   @cd $@; pwd; $(MAKE) $(TARGET)  
65 FRC:  
66 #endif /* ! codereview */
```

2

new/usr/src/lib/libsaveargs/Makefile.com

```
*****
3063 Mon Mar  4 20:43:32 2013
new/usr/src/lib/libsaveargs/Makefile.com
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
*****
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26 #
27 # The build process for libsaveargs is slightly different from that used by other
28 # libraries, because libsaveargs must be built in two flavors - as a standalone
29 # for use by kmdb and as a normal library. We use $(CURTYPE) to indicate the
30 # current flavor being built.
31 #

33 LIBRARY=      libsaveargs.a
34 STANDLIBRARY= libstandsavargs.so
35 VERS=         .1

37 # By default, we build the shared library. Construction of the standalone
38 # is specifically requested by architecture-specific Makefiles.
39 TYPES=        library
40 CURTYPE=      library

42 COMDIR=       $(SRC)/lib/libsaveargs/common

44 OBJECTS_common_amd64 = saveargs.o
45 SRCS_common_amd64   = $(OBJECTS_common_amd64:%.o=../amd64/%.c)

47 OBJECTS= $(OBJECTS_common_$(MACH)) $(OBJECTS_common_$(MACH64)) $(OBJECTS_common_
49 include $(SRC)/lib/Makefile.lib

51 SRCS=  $(SRCS_common_$(MACH)) $(SRCS_common_$(MACH64)) $(SRC_common_common)

53 #
54 # Used to verify that the standalone doesn't have any unexpected external
55 # dependencies.
56 #
57 LINKTEST_OBJ = objs/linktest_stand.o
```

1

new/usr/src/lib/libsaveargs/Makefile.com

```
59 CLOBBERFILES_standalone = $(LINKTEST_OBJ)
60 CLOBBERFILES += $(CLOBBERFILES_$(CURTYPE))

62 LIBS_standalone = $(STANDLIBRARY)
63 LIBS_library = $(DYNLIB) $(LINTLIB)
64 LIBS = $(LIBS_$(CURTYPE))

66 MAPFILES =      $(COMDIR)/mapfile-vers

68 LDLIBS +=      -lc -ldisasm

70 LDFLAGS_standalone = $(ZNOVERSION) $(BREDUCE) -dy -r
71 LDFLAGS = $(LDFLAGS_$(CURTYPE))

73 ASFLAGS_standalone = -DDIS_STANDALONE
74 ASFLAGS_library =
75 ASFLAGS += -P $(ASFLAGS_$(CURTYPE)) -D_ASM

77 $(LINTLIB) := SRCS = $(COMDIR)/$(LINTSRC)

79 # We want the thread-specific errno in the library, but we don't want it in
80 # the standalone. $(DTS_ERRNO) is designed to add -D_TS_ERRNO to $(CPPFLAGS),
81 # in order to enable this feature. Conveniently, -D_REENTRANT does the same
82 # thing. As such, we null out $(DTS_ERRNO) to ensure that the standalone
83 # doesn't get it.
84 DTS_ERRNO=

86 CPPFLAGS_standalone = -DDIS_STANDALONE
87 CPPFLAGS_library = -D_REENTRANT
88 CPPFLAGS +=      -I$(COMDIR) $(CPPFLAGS_$(CURTYPE))

90 CFLAGS_standalone = $(STAND_FLAGS_32)
91 CFLAGS_common =
92 CFLAGS += $(CFLAGS_$(CURTYPE)) $(CFLAGS_common)

94 CFLAGS64_standalone = $(STAND_FLAGS_64)
95 CFLAGS64 += $(CCVERBOSE) $(CFLAGS64_$(CURTYPE)) $(CFLAGS64_common)

97 DYNFLAGS +=      $(ZINTERPOSE)

99 .KEEP_STATE:
100 #endif /* ! codereview */
```

2

```
new/usr/src/lib/libsaveargs/Makefile.targ
```

```
*****
2209 Mon Mar  4 20:43:32 2013
new/usr/src/lib/libsaveargs/Makefile.targ
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
*****
```

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26 #
27 # We build each flavor in a separate make invocation to improve clarity(!) in
28 # Makefile.com. The subordinate makes have $(CURTYPE) set to indicate the
29 # flavor they're supposed to build. This causes the correct set of source
30 # files and compiler and linker flags to be selected.
31 #

33 install: $(TYPES:%=install.%)

35 all: $(TYPES:%=all.%)

37 $(TYPES:%=all.%):
38     @CURTYPE=$(@:all.%=%) $(MAKE) $@.targ

40 $(TYPES:%=install.%):
41     @CURTYPE=$(@:install.%=%) $(MAKE) $@.targ

43 install.library.targ: all.library $(INSTALL_DEPS_library)
44 install.standalone.targ: all.standalone $(INSTALL_DEPS_standalone)

46 all.library.targ: $(LIBS)
47 all.standalone.targ: $(STANDLIBRARY)

49 lint: $(TYPES:%=lint.%)

51 $(TYPES:%=lint.%):
52     @CURTYPE=$(@:lint.%=%) $(MAKE) lintcheck

54 $(STANDLIBRARY): $(OBJS) $(LINKTEST_OBJ)
55     $(LD) $(BREDUCE) $(ZDEFS) $(LDFLAGS) -o $@.linktest $(OBJS) $(LINKTEST_O
56     rm $@.linktest
57     $(LD) $(LDFLAGS) -o $@ $(OBJS)
```

```
1
```

```
new/usr/src/lib/libsaveargs/Makefile.targ
```

```
59 clobber: $(TYPES:%=clobber.%)

61 $(TYPES:%=clobber.%):
62     @CURTYPE=$(@:clobber.%=%) $(MAKE) clobber.targ

64 clobber.targ: clean
65     -$(RM) $(CLOBBERTARGFILES)

67 # include library targets
68 include $(SRC)/lib/Makefile.targ

70 $(PICS): pics
71 $(OBJS): objs

73 objs/%.o pics/%.o: $(COMDIR)/%.c
74     $(COMPILE.c) -o $@ $<
75     $(POST_PROCESS_O)

77 # install rule for lint library target
78 $(ROOTLINTDIR)/%: $(COMDIR)/%
79     $(INS.file)

81 #endif /* ! codereview */
```

```
2
```

```
*****
```

```
1114 Mon Mar 4 20:43:33 2013
```

```
new/usr/src/lib/libsaveargs/amd64/Makefile
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
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26 include ../Makefile.com
27 include ../../Makefile.lib.64

29 TYPES=library standalone

31 INSTALL_DEPS_library = $(ROOTLINKS64) $(ROOTLINT64) $(ROOTLIBS64)
32 INSTALL_DEPS_standalone = $(ROOTLIBS64)

34 include ../Makefile.targ
35 #endif /* ! codereview */
```

new/usr/src/lib/libsaveargs/amd64/saveargs.c

8803 Mon Mar 4 20:43:33 2013

new/usr/src/lib/libsaveargs/amd64/saveargs.c
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>

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24 */

25 /*
26 * The Sun Studio and GCC (patched for opensolaris/illumos) compilers
27 * implement a argument saving scheme on amd64 via the -Wu,save-args or
28 * options. When the option is specified, INTEGER type function arguments
29 * passed via registers will be saved on the stack immediately after %rbp, and
30 * will not be modified through out the life of the routine.
31 *
32 *
33 *
34 *      +-----+
35 *      %rbp --> | %rbp |
36 *                  +-----+
37 *                  -0x8(%rbp) | %rdi |
38 *                  +-----+
39 *                  -0x10(%rbp) | %rsi |
40 *                  +-----+
41 *                  -0x18(%rbp) | %rdx |
42 *                  +-----+
43 *                  -0x20(%rbp) | %rcx |
44 *                  +-----+
45 *                  -0x28(%rbp) | %r8 |
46 *                  +-----+
47 *                  -0x30(%rbp) | %r9 |
48 *                  +-----+
49 *
50 *
51 * For example, for the following function,
52 *
53 * void
54 * foo(int a1, int a2, int a3, int a4, int a5, int a6, int a7)
55 * {
56 * ...
57 * }
```

1

new/usr/src/lib/libsaveargs/amd64/saveargs.c

* Disassembled code will look something like the following:

```
60 *
61 *      pushq    %rbp
62 *      movq    %rsp, %rbp
63 *      subq    $imm8, %rsp
64 *      movq    %rdi, -0x8(%rbp)
65 *      movq    %rsi, -0x10(%rbp)
66 *      movq    %rdx, -0x18(%rbp)
67 *      movq    %rcx, -0x20(%rbp)
68 *      movq    %r8, -0x28(%rbp)
69 *      movq    %r9, -0x30(%rbp)
70 *      ...
71 *      or
72 *      pushq    %rbp
73 *      movq    %rsp, %rbp
74 *      subq    $imm8, %rsp
75 *      movq    %r9, -0x30(%rbp)
76 *      movq    %r8, -0x28(%rbp)
77 *      movq    %rcx, -0x20(%rbp)
78 *      movq    %rdx, -0x18(%rbp)
79 *      movq    %rsi, -0x10(%rbp)
80 *      movq    %rdi, -0x8(%rbp)
81 *      ...
82 *      or
83 *      pushq    %rbp
84 *      movq    %rsp, %rbp
85 *      pushq    %rdi
86 *      pushq    %rsi
87 *      pushq    %rdx
88 *      pushq    %rcx
89 *      pushq    %r8
90 *      pushq    %r9
91 *
92 *      ***: The space being reserved is in addition to what the current
93 *      function prolog already reserves.
94 *
95 * We loop through the first SAVEARGS_INSN_SEQ_LEN bytes of the function
96 * looking for each argument saving instruction we would expect to see.
97 * looking for each argument saving instruction we would expect to see. We
98 * loop byte-by-byte, rather than doing anything smart about insn lengths,
99 * only deviating from this when we know we have our insn, and can skip the
100 * rest of it.
101 *
102 * If there are odd number of arguments to a function, additional space is
103 * reserved on the stack to maintain 16-byte alignment. For example,
104 */
105
106 #include <sys/sysmacros.h>
107 #include <sys/types.h>
108 #include <libdisasm.h>
109 #include <string.h>
110
111 #endif /* ! codereview */
112 #include <saveargs.h>
113
114 /*
115 * Size of the instruction sequence arrays. It should correspond to
116 * the maximum number of arguments passed via registers.
117 */
118 #define INSTR_ARRAY_SIZE       6
119
120 #define INSTR1(ins, off) (ins[(off)])
```

2

```

121 #define INSTR2(ins, off) (ins[(off)] + (ins[(off) + 1] << 8))
122 #define INSTR3(ins, off) \
123     (ins[(off)] + (ins[(off) + 1] << 8) + (ins[(off + 2)] << 16))
124 #define INSTR4(ins, off) \
125     (ins[(off)] + (ins[(off) + 1] << 8) + (ins[(off + 2)] << 16) + \
126     (ins[(off) + 3] << 24))
127 /*
128  * Sun Studio 10 patch implementation saves %rdi first;
129  * GCC 3.4.3 Sun branch implementation saves them in reverse order.
130 */
131
132 static const uint32_t save_instr[INSTR_ARRAY_SIZE] = {
133     0xf87d8948, /* movq %rdi, -0x8(%rbp) */
134     0xf0758948, /* movq %rsi, -0x10(%rbp) */
135     0xe8558948, /* movq %rdx, -0x18(%rbp) */
136     0xe04d8948, /* movq %rcx, -0x20(%rbp) */
137     0xd845894c, /* movq %r8, -0x28(%rbp) */
138     0xd04d894c, /* movq %r9, -0x30(%rbp) */
139 };
140
141 static const uint16_t save_instr_push[] = {
142     0x57, /* pushq %rdi */
143     0x56, /* pushq %rsi */
144     0x52, /* pushq %rdx */
145     0x51, /* pushq %rcx */
146     0x5041, /* pushq %r8 */
147     0x5141 /* pushq %r9 */
148 };
149 /*
150  * If the return type of a function is a structure greater than 16 bytes in
151  * size, %rdi will contain the address to which it should be stored, and
152  * arguments will begin at %rsi. Studio will push all of the normal argument
153  * registers anyway, GCC will start pushing at %rsi, so we need a separate
154  * pattern.
155 */
156 static const uint32_t save_instr_sri[INSTR_ARRAY_SIZE-1] = {
157     0xf8758948, /* movq %rsi,-0x8(%rbp) */
158     0xf0558948, /* movq %rdx,-0x10(%rbp) */
159     0xe84d8948, /* movq %rcx,-0x18(%rbp) */
160     0xe045894c, /* movq %r8,-0x20(%rbp) */
161     0xd84d894c, /* movq %r9,-0x28(%rbp) */
162 };
163
164 static const uint8_t save_fp_pushes[] = {
165     0x55, /* pushq %rbp */
166     0xcc, /* int $0x3 */
167 };
168
169 #define NUM_FP_PUSHES (sizeof(save_fp_pushes) / sizeof(save_fp_pushes[0]))
170
171 static const uint32_t save_fp_movs[] = {
172     0x00e58948, /* movq %rsp,%rbp, encoding 1 */
173     0x00ec8b48, /* movq %rsp,%rbp, encoding 2 */
174 };
175 #define NUM_FP_MOVS (sizeof(save_fp_movs) / sizeof(save_fp_movs[0]))
176
177 typedef struct {
178     uint8_t *data;
179     size_t size;
180 } text_t;
181
182 static int
183 do_read(void *data, uint64_t addr, void *buf, size_t len)
184 {
185     text_t *t = data;

```

```

187     if (addr >= t->size)
188         return (-1);
189
190     len = MIN(len, t->size - addr);
191
192     (void) memcpy(buf, (char *)t->data + addr, len);
193
194     return (len);
195 }
196
197 /* ARGSUSED */
198 int
199 do_lookup(void *data, uint64_t addr, char *buf, size_t buflen, uint64_t *start,
200           size_t *symlen)
201 {
202     /* We don't actually need lookup info */
203     return (-1);
204 }
205
206 #endif /* ! codereview */
207 static int
208 instr_size(dis_handle_t *dhp, uint8_t *ins, unsigned int i, size_t size)
209 {
210     text_t t;
211
212     t.data = ins;
213     t.size = size;
214
215     dis_set_data(dhp, &t);
216     return (dis_instrlen(dhp, i));
217 }
218
219 static boolean_t
220 has_saved_fp(dis_handle_t *dhp, uint8_t *ins, int size)
221 {
222     int i, j;
223     uint32_t n;
224     boolean_t found_push = B_FALSE;
225     int sz = 0;
226
227     for (i = 0; i < size; i += sz) {
228         if ((sz = instr_size(dhp, ins, i, size)) < 1)
229             return (B_FALSE);
230
231         if (found_push == B_FALSE) {
232             if (sz != 1)
233                 continue;
234
235             int found_push = 0;
236
237             for (i = 0; i < size; i++) {
238                 if (found_push == 0) {
239                     n = INSTR1(ins, i);
240                     for (j = 0; j <= NUM_FP_PUSHES; j++) {
241                         if (save_fp_pushes[j] == n) {
242                             found_push = B_TRUE;
243                             found_push = 1;
244                             break;
245                         }
246                     }
247                 } else {
248                     if (sz != 3)
249                         continue;
250
251                     n = INSTR3(ins, i);
252                     for (j = 0; j <= NUM_FP_MOVS; j++) {
253                         if (save_fp_movs[j] == n) {
254                             found_push = B_TRUE;
255                             break;
256                         }
257                     }
258                 }
259             }
260         }
261     }
262 }

```

```

248                     return (B_TRUE);
249             }
250         }
251     }
252     return (B_FALSE);
253 }
254
255 int
256 saveargs_has_args(uint8_t *ins, size_t size, uint_t argc, int start_index)
257 {
258     int i, j;
259     uint32_t n;
260     uint8_t found = 0;
261     size_t sz = 0;
262     dis_handle_t *dhp = NULL;
263     int ret = SAVEARGS_NO_ARGS;
264 #endif /* ! codereview */
265
266     argc = MIN((start_index + argc), INSTR_ARRAY_SIZE);
267
268     if ((dhp = dis_handle_create(DIS_X86_SIZE64, NULL, do_lookup,
269         do_read)) == NULL)
270         return (SAVEARGS_NO_ARGS);
271
272     if (!has_saved_fp(dhp, ins, size)) {
273         dis_handle_destroy(dhp);
274         if (!has_saved_fp(ins, size))
275             return (SAVEARGS_NO_ARGS);
276 #endif /* ! codereview */
277
278     /*
279      * For each possible style of argument saving, walk the insn stream as
280      * we've been given it, and set bit N in 'found' if we find the
281      * instruction saving the Nth argument.
282      * Compare against Sun Studio implementation
283      */
284     for (i = 4, j = 0; i <= size - 4; i++) {
285         n = INSTR4(ins, i);
286
287         if (n == save_instr[j]) {
288             i += 3;
289             if (++j >= argc)
290                 return (start_index ? SAVEARGS_STRUCT_ARGS :
291                         SAVEARGS_TRAD_ARGS);
292         }
293
294     /*
295      * Compare against regular implementation
296      * Compare against GCC implementation
297      */
298     found = 0;
299     for (i = 0; i < size; i += sz) {
300         sz = instr_size(dhp, ins, i, size);
301
302         if (sz < 1)
303             break;
304         else if (sz != 4)
305             continue;
306
307         for (i = 4, j = argc - 1; i <= size - 4; i++) {
308             n = INSTR4(ins, i);
309
310             if (n == save_instr[j]) {
311                 i += 3;
312                 if (++j >= argc)
313                     return (start_index ? SAVEARGS_STRUCT_ARGS :
314                             SAVEARGS_TRAD_ARGS);
315             }
316         }
317     }
318
319     if (found == 0)
320         return (SAVEARGS_NO_ARGS);
321
322     /*
323      * Compare against GCC push-based implementation
324      */
325     for (i = 0; i < size; i += sz) {
326         if ((sz = instr_size(dhp, ins, i, size)) < 1)
327             break;
328
329         for (j = start_index; j < argc; j++) {
330             if (sz == 2) /* Two byte */
331                 n = INSTR2(ins, i);
332             else if (sz == 1)
333                 n = INSTR1(ins, i);
334             else
335                 continue;
336
337         if (n == save_instr_push[j])
338             found |= (1 << (j - start_index));
339
340         if (found ==
341             ((1 << (argc - start_index)) - 1)) {
342             ret = SAVEARGS_TRAD_ARGS;
343             goto done;
344         }
345
346     /*
347      * Look for a GCC-style returned structure.
348      */
349     found = 0;
350     /* Look for a GCC-style returned structure */
351     if (start_index != 0) {
352         for (i = 0; i < size; i += sz) {
353             sz = instr_size(dhp, ins, i, size);
354
355             if (sz < 1)
356                 break;
357
358             for (j = argc - 1; j >= 0; j--) {
359                 n = INSTR4(ins, i);
360
361                 if (n == save_instr[j]) {
362                     i += 3;
363                     if (++j >= argc)
364                         return (start_index ? SAVEARGS_STRUCT_ARGS :
365                                 SAVEARGS_TRAD_ARGS);
366                 }
367             }
368         }
369     }
370
371     if (found == 0)
372         return (SAVEARGS_NO_ARGS);
373
374     /*
375      * Look for a GCC-style returned structure.
376      */
377     found = 0;
378     /* Look for a GCC-style returned structure */
379     if (start_index != 0) {
380         for (i = 0; i < size; i += sz) {
381             sz = instr_size(dhp, ins, i, size);
382
383             if (sz < 1)
384                 break;
385
386             for (j = argc - 1; j >= 0; j--) {
387                 n = INSTR4(ins, i);
388
389                 if (n == save_instr[j]) {
390                     i += 3;
391                     if (++j >= argc)
392                         return (start_index ? SAVEARGS_STRUCT_ARGS :
393                                 SAVEARGS_TRAD_ARGS);
394                 }
395             }
396         }
397     }
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399     if (found == 0)
400         return (SAVEARGS_NO_ARGS);
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402     /*
403      * Look for a GCC-style returned structure.
404      */
405     found = 0;
406     /* Look for a GCC-style returned structure */
407     if (start_index != 0) {
408         for (i = 0; i < size; i += sz) {
409             sz = instr_size(dhp, ins, i, size);
410
411             if (sz < 1)
412                 break;
413
414             for (j = argc - 1; j >= 0; j--) {
415                 n = INSTR4(ins, i);
416
417                 if (n == save_instr[j]) {
418                     i += 3;
419                     if (++j >= argc)
420                         return (start_index ? SAVEARGS_STRUCT_ARGS :
421                                 SAVEARGS_TRAD_ARGS);
422                 }
423             }
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431      * Look for a GCC-style returned structure.
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435     if (start_index != 0) {
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437             sz = instr_size(dhp, ins, i, size);
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439             if (sz < 1)
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442             for (j = argc - 1; j >= 0; j--) {
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459      * Look for a GCC-style returned structure.
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461     found = 0;
462     /* Look for a GCC-style returned structure */
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465             sz = instr_size(dhp, ins, i, size);
466
467             if (sz < 1)
468                 break;
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470             for (j = argc - 1; j >= 0; j--) {
471                 n = INSTR4(ins, i);
472
473                 if (n == save_instr[j]) {
474                     i += 3;
475                     if (++j >= argc)
476                         return (start_index ? SAVEARGS_STRUCT_ARGS :
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479             }
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489     found = 0;
490     /* Look for a GCC-style returned structure */
491     if (start_index != 0) {
492         for (i = 0; i < size; i += sz) {
493             sz = instr_size(dhp, ins, i, size);
494
495             if (sz < 1)
496                 break;
497
498             for (j = argc - 1; j >= 0; j--) {
499                 n = INSTR4(ins, i);
500
501                 if (n == save_instr[j]) {
502                     i += 3;
503                     if (++j >= argc)
504                         return (start_index ? SAVEARGS_STRUCT_ARGS :
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506                 }
507             }
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522
523             if (sz < 1)
524                 break;
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526             for (j = argc - 1; j >= 0; j--) {
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529                 if (n == save_instr[j]) {
530                     i += 3;
531                     if (++j >= argc)
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551             if (sz < 1)
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557                 if (n == save_instr[j]) {
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559                     if (++j >= argc)
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613                 if (n == save_instr[j]) {
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635             if (sz < 1)
636                 break;
637
638             for (j = argc - 1; j >= 0; j--) {
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640
641                 if (n == save_instr[j]) {
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643                     if (++j >= argc)
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662
663             if (sz < 1)
664                 break;
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666             for (j = argc - 1; j >= 0; j--) {
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669                 if (n == save_instr[j]) {
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690
691             if (sz < 1)
692                 break;
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694             for (j = argc - 1; j >= 0; j--) {
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697                 if (n == save_instr[j]) {
698                     i += 3;
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717             sz = instr_size(dhp, ins, i, size);
718
719             if (sz < 1)
720                 break;
721
722             for (j = argc - 1; j >= 0; j--) {
723                 n = INSTR4(ins, i);
724
725                 if (n == save_instr[j]) {
726                     i += 3;
727                     if (++j >= argc)
728                         return (start_index ? SAVEARGS_STRUCT_ARGS :
729                                 SAVEARGS_TRAD_ARGS);
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731             }
732         }
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736         return (SAVEARGS_NO_ARGS);
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739      * Look for a GCC-style returned structure.
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741     found = 0;
742     /* Look for a GCC-style returned structure */
743     if (start_index != 0) {
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745             sz = instr_size(dhp, ins, i, size);
746
747             if (sz < 1)
748                 break;
749
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752
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776                 break;
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797     found = 0;
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802
803             if (sz < 1)
804                 break;
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807                 n = INSTR4(ins, i);
808
809                 if (n == save_instr[j]) {
810                     i += 3;
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823      * Look for a GCC-style returned structure.
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825     found = 0;
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829             sz = instr_size(dhp, ins, i, size);
830
831             if (sz < 1)
832                 break;
833
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835                 n = INSTR4(ins, i);
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840                         return (start_index ? SAVEARGS_STRUCT_ARGS :
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851      * Look for a GCC-style returned structure.
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853     found = 0;
854     /* Look for a GCC-style returned structure */
855     if (start_index != 0) {
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858
859             if (sz < 1)
860                 break;
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862             for (j = argc - 1; j >= 0; j--) {
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865                 if (n == save_instr[j]) {
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868                         return (start_index ? SAVEARGS_STRUCT_ARGS :
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886
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888                 break;
889
890             for (j = argc - 1; j >= 0; j--) {
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894                     i += 3;
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896                         return (start_index ? SAVEARGS_STRUCT_ARGS :
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915             if (sz < 1)
916                 break;
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918             for (j = argc - 1; j >= 0; j--) {
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923                     if (++j >= argc)
924                         return (start_index ? SAVEARGS_STRUCT_ARGS :
925                                 SAVEARGS_TRAD_ARGS);
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965     found = 0;
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1030             for (j = argc - 1; j >= 0; j--) {
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1033                 if (n == save_instr[j]) {
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1058             for (j = argc - 1; j >= 0; j--) {
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1086             for (j = argc - 1; j >= 0; j--) {
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1109             sz = instr_size(dhp, ins, i, size);
1110
1111             if (sz < 1)
1112                 break;
1113
1114             for (j = argc - 1; j >= 0; j--) {
1115                 n = INSTR4(ins, i);
1116
1117                 if (n == save_instr[j]) {
1118                     i += 3;
1119                     if (++j >= argc)
1120                         return (start_index ? SAVEARGS_STRUCT_ARGS :
1121                                 SAVEARGS_TRAD_ARGS);
1122                 }
1123             }
1124         }
1125     }
1126
1127     if (found == 0)
1128         return (SAVEARGS_NO_ARGS);
1129
1130     /*
1131      * Look for a GCC-style returned structure.
1132      */
1133     found = 0;
1134     /* Look for a GCC-style returned structure */
1135     if (start_index != 0) {
1136         for (i = 0; i < size; i += sz) {
1137             sz = instr_size(dhp, ins, i, size);
1138
1139             if (sz < 1)
1140                 break;
1141
1142             for (j = argc - 1; j >= 0; j--) {
1143                 n = INSTR4(ins, i);
1144
1145                 if (n == save_instr[j]) {
1146                     i += 3;
1147                     if (++j >= argc)
1148                         return (start_index ? SAVEARGS_STRUCT_ARGS :
1149                                 SAVEARGS_TRAD_ARGS);
1150                 }
1151             }
1152         }
1153     }
1154
1155     if (found == 0)
1156         return (SAVEARGS_NO_ARGS);
1157
1158     /*
1159      * Look for a GCC-style returned structure.
1160      */
1161     found = 0;
1162     /* Look for a GCC-style returned structure */
1163     if (start_index != 0) {
1164         for (i = 0; i < size; i += sz) {
1165             sz = instr_size(dhp, ins, i, size);
1166
1167             if (sz < 1)
1168                 break;
1169
1170             for (j = argc - 1; j >= 0; j--) {
1171                 n = INSTR4(ins, i);
1172
1173                 if (n == save_instr[j]) {
1174                     i += 3;
1175                     if (++j >= argc)
1176                         return (start_index ? SAVEARGS_STRUCT_ARGS :
1177                                 SAVEARGS_TRAD_ARGS);
1178                 }
1179             }
1180         }
1181     }
1182
1183     if (found == 0)
1184         return (SAVEARGS_NO_ARGS);
1185
1186     /*
1187      * Look for a GCC-style returned structure.
1188      */
1189     found = 0;
1190     /* Look for a GCC-style returned structure */
1191     if (start_index != 0) {
1192         for (i = 0; i < size; i += sz) {
1193             sz = instr_size(dhp, ins, i, size);
1194
1195             if (sz < 1)
1196                 break;
1197
1198             for (j = argc - 1; j >= 0; j--) {
1199                 n = INSTR4(ins, i);
1200
1201                 if (n == save_instr[j]) {
1202                     i += 3;
1203                     if (++j >= argc)
1204                         return (start_index ? SAVEARGS_STRUCT_ARGS :
1205                                 SAVEARGS_TRAD_ARGS);
1206                 }
1207             }
1208         }
1209     }
1210
1211     if (found == 0)
1212         return (SAVEARGS_NO_ARGS);
1213
1214     /*
1215      * Look for a GCC-style returned structure.
1216      */
1217     found = 0;
1218     /* Look for a GCC-style returned structure */
1219     if (start_index != 0) {
1220         for (i = 0; i < size; i += sz) {
1221             sz = instr_size(dhp, ins, i, size);
1222
1223             if (sz < 1)
1224                 break;
1225
1226             for (j = argc - 1; j >= 0; j--) {
1227                 n = INSTR4(ins, i);
1228
1229                 if (n == save_instr[j]) {
1230                     i += 3;
1231                     if (++j >= argc)
1232                         return (start_index ? SAVEARGS_STRUCT_ARGS :
1233                                 SAVEARGS_TRAD_ARGS);
1234                 }
1235             }
1236         }
1237     }
1238
1239     if (found == 0)
1240         return (SAVEARGS_NO_ARGS);
1241
1242     /*
1243      * Look for a GCC-style returned structure.
1244      */
1245     found = 0;
1246     /* Look for a GCC-style returned structure */
1247     if (start_index != 0) {
1248         for (i = 0; i < size; i += sz) {
1249             sz = instr_size(dhp, ins, i, size);
1250
1251             if (sz < 1)
1252                 break;
1253
1254             for (j = argc - 1; j >= 0; j--) {
1255                 n = INSTR4(ins, i);
1256
1257                 if (n == save_instr[j]) {
1258                     i += 3;
1259                     if (++j >= argc)
1260                         return (start_index ? SAVEARGS_STRUCT_ARGS :
1261                                 SAVEARGS_TRAD_ARGS);
1262                 }
1263             }
1264         }
1265     }
1266
1267     if (found == 0)
1268         return (SAVEARGS_NO_ARGS);
1269
1270     /*
1271      * Look for a GCC-style returned structure.
1272      */
1273     found = 0;
1274     /* Look for a GCC-style returned structure */
1275     if (start_index != 0) {
1276         for (i = 0; i < size; i += sz) {
1277             sz = instr_size(dhp, ins, i, size);
1278
1279             if (sz < 1)
1280                 break;
1281
1282             for (j = argc - 1; j >= 0; j--) {
1283                 n = INSTR4(ins, i);
1284
1285                 if (n == save_instr[j]) {
1286                     i += 3;
1287                     if (++j >= argc)
1288                         return (start_index ? SAVEARGS_STRUCT_ARGS :
1289                                 SAVEARGS_TRAD_ARGS);
1290                 }
1291             }
1292         }
1293     }
1294
1295     if (found == 0)
1296         return (SAVEARGS_NO_ARGS);
1297
1298     /*
1299      * Look for a GCC-style returned structure.
1300      */
1301     found = 0;
1302     /* Look for a GCC-style returned structure */
1303     if (start_index != 0) {
1304         for (i = 0; i < size; i += sz) {
1305             sz = instr_size(dhp, ins, i, size);
1306
1307             if (sz < 1)
1308                 break;
1309
1310             for (j = argc - 1; j >= 0; j--) {
1311                 n = INSTR4(ins, i);
1312
1313                 if (n == save_instr[j]) {
1314                     i += 3;
1315                     if (++j >= argc)
1316                         return (start_index ? SAVEARGS_STRUCT_ARGS :
1317                                 SAVEARGS_TRAD_ARGS);
1318                 }
1319             }
1320         }
1321     }
1322
1323     if (found == 0)
1324         return (SAVEARGS_NO_ARGS);
1325
1326     /*
1327      * Look for a GCC-style returned structure.
1328      */
1329     found = 0;
1330     /* Look for a GCC-style returned structure */
1331     if (start_index != 0) {
1332         for (i = 0; i < size; i += sz) {
1333             sz = instr_size(dhp, ins, i, size);
1334
1335             if (sz < 1)
1336                 break;
1337
1338             for (j = argc - 1; j >= 0; j--) {
1339                 n = INSTR4(ins, i);
1340
1341                 if (n == save_instr[j]) {
1342                     i += 3;
1343                     if (++j >= argc)
1344                         return (start_index ? SAVEARGS_STRUCT_ARGS :
1345                                 SAVEARGS_TRAD_ARGS);
1346                 }
1347             }
1348         }
1349     }
1350
1351     if (found == 0)
1352         return (SAVEARGS_NO_ARGS);
1353
1354     /*
1355      * Look for a GCC-style returned structure.
1356      */
1357     found = 0;
1358     /* Look for a GCC-style returned
```

```
354         break;
355     else if (sz != 4)
356         continue;
357
358     for (i = 4, j = argc - 2; i <= size - 4; i++) {
359         n = INSTR4(ins, i);
360
361         /* argc is inclusive of start_index, allow for that */
362         for (j = 0; j < (argc - start_index); j++) {
363 #endif /* ! codereview */
364             if (n == save_instr_sr[j]) {
365                 found |= (1 << j);
366
367                 if (found ==
368                     ((1 << (argc - start_index)) - 1)) {
369                     ret = SAVEARGS_TRAD_ARGS;
370                     goto done;
371
372                 break;
373             }
374             i += 3;
375             if (--j >= (argc - 1))
376                 return (SAVEARGS_TRAD_ARGS);
377         }
378     }
379
380     dis_handle_destroy(dhp);
381     return (ret);
382 }
383
384 unchanged_portion_omitted
```

```
new/usr/src/lib/libsaveargs/common/linktest_stand.c
```

```
1
```

```
*****
590 Mon Mar 4 20:43:33 2013
new/usr/src/lib/libsaveargs/common/linktest_stand.c
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
*****
```

```
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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 */
12 /* Copyright 2013, Richard Lowe */

14 void memcpy(void) {}
15 void dis_set_data(void) {}
16 void dis_instrlen(void) {}
17 void dis_handle_create(void) {}
18 void dis_handle_destroy(void) {}
19 #endif /* ! codereview */
```

```
new/usr/src/lib/libsaveargs/common/lolib-lssaveargs
```

```
1
```

```
*****
508 Mon Mar 4 20:43:34 2013
new/usr/src/lib/libsaveargs/common/lolib-lssaveargs
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
*****
```

```
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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 */

12 /* Copyright 2013, Richard Lowe. */

14 /* LINTLIBRARY */
15 /* PROTOLIB */

17 #include <saveargs.h>
18 #endif /* ! codereview */
```

```
new/usr/src/lib/libsaveargs/common/mapfile-vers
```

```
1
```

```
*****
883 Mon Mar 4 20:43:34 2013
new/usr/src/lib/libsaveargs/common/mapfile-vers
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
*****
```

```
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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 # Copyright 2013, Richard Lowe.

14 #
15 # MAPFILE HEADER START
16 #
17 # WARNING: STOP NOW. DO NOT MODIFY THIS FILE.
18 # Object versioning must comply with the rules detailed in
19 #
20 #     usr/src/lib/README.mapfiles
21 #
22 # You should not be making modifications here until you've read the most current
23 # copy of that file. If you need help, contact a gatekeeper for guidance.
24 #
25 # MAPFILE HEADER END
26 #

28 $mapfile_version 2

30 SYMBOL_VERSION ILLUMOSprivate {
31     global:
32         saveargs_has_args;
33     local:
34         *;
35 },
36 #endif /* ! codereview */
```

```
new/usr/src/lib/libsaveargs/tests/README
```

```
1
```

```
*****
347 Mon Mar 4 20:43:34 2013
new/usr/src/lib/libsaveargs/tests/README
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
*****
```

```
1 testmatch:
```

```
3     A stub program that tests the saveargs matcher against a variety of
4     function prologues (assembled from data.s)
6 functional:
8     Actually test the full chunk of the (libproc) side of the code, running
9     pstack on the range of test apps.
```

```
11 dump:
```

```
13     Display each function in a given object we believe to have saved
14     arguments.
15 #endif /* ! codereview */
```

```
*****
```

```
764 Mon Mar 4 20:43:35 2013
```

```
new/usr/src/lib/libsaveargs/tests/dump/Makefile
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
*****
```

```
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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 #

12 #
13 # Copyright 2012, Richard Lowe.
14 #

16 include $(SRC)/Makefile.master
17 include $(SRC)/Makefile.master.64

19 .KEEP_STATE:

21 OBJECTS = dump.o
22 PROG = dump

24 CFLAGS += -m64

26 LDLIBS64 += -lctf -lelf -lsaveargs

28 C99MODE = $(C99_ENABLE)

30 $(PROG): $(OBJECTS)
31         $(LINK.c) -o $@ $(OBJECTS) $(LDLIBS64)
32 clean:
33         $(RM) $(OBJECTS) $(PROG)

35 clobber: clean

37 all: $(PROG)

39 install: all
40 #endif /* ! codereview */
```

new/usr/src/lib/libsaveargs/tests/dump/dump.c

4214 Mon Mar 4 20:43:35 2013

new/usr/src/lib/libsaveargs/tests/dump/dump.c

3544 save-args matcher could be considerably more robust

3545 save-args matcher should accept saves may be out-of-order

Reviewed by: Joshua M. Clulow <josh@sysmgr.org>

Reviewed by: Robert Mustacchi <rm@joyent.com>

```
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3  *
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10 * See the License for the specific language governing permissions
11 * and limitations under the License.
12 *
13 * When distributing Covered Code, include this CDDL HEADER in each
14 * file and include the License file at usr/src/OPENSOLARIS.LICENSE.
15 * If applicable, add the following below this CDDL HEADER, with the
16 * fields enclosed by brackets "[]" replaced with your own identifying
17 * information: Portions Copyright [yyyy] [name of copyright owner]
18 *
19 * CDDL HEADER END
20 */
21 /*
22 * Copyright (c) 2011, Joyent, Inc. All rights reserved.
23 * Copyright (c) 2011, Robert Mustacchi, Inc. All rights reserved.
24 * Copyright 2013, Richard Lowe.
25 */
26
27 #include <err.h>
28 #include <fcntl.h>
29 #include <gelf.h>
30 #include <libctf.h>
31 #include <saveargs.h>
32 #include <stdarg.h>
33 #include <stdio.h>
34 #include <stdlib.h>
35 #include <strings.h>
36 #include <unistd.h>
37
38 extern const char *__progname;
39
40 typedef struct symtab_sym {
41     GElf_Sym ss_sym;
42     char *ss_name;
43     ctf_funcinfo_t ss_finfo;
44     uint8_t *ss_data;
45     size_t ss_size;
46 } symtab_sym_t;
47
48 static void
49 walk_symtab(Elf *elf, char *fname, ctf_file_t *fp,
50             void (*callback)(ctf_file_t *, symtab_sym_t *));
51
52 {
53     Elf_Scn *stab = NULL;
54     Elf_Scn *text = NULL;
55     Elf_Data *stabdata = NULL;
56     Elf_Data *textdata = NULL;
57     GElf_Ehdr ehdr;
58     GElf_Shdr stabshdr;
```

1

new/usr/src/lib/libsaveargs/tests/dump/dump.c

```
59     GElf_Shdr textshdr;
60     int foundtext = 0, foundstab = 0;
61     symtab_sym_t ss;
62
63     if ((gelf_getehdr(elf, &ehdr)) == NULL)
64         errx(1, "could not read ELF header from %s\n",
65              fname);
66
67     while ((stab = elf_nextscn(elf, stab)) != NULL) {
68         (void) gelf_getshdr(stab, &stabshdr);
69
70         if (stabshdr.sh_type == SHT_SYMTAB) {
71             foundstab = 1;
72             break;
73         }
74     }
75
76     while ((text = elf_nextscn(elf, text)) != NULL) {
77         (void) gelf_getshdr(text, &textshdr);
78
79         if (strcmp(".text", elf_strptr(elf,
80                                         ehdr.e_shstrndx, (size_t)textshdr.sh_name)) == 0) {
81             foundtext = 1;
82             break;
83         }
84     }
85
86     if (!foundstab || !foundtext)
87         return;
88
89     stabdata = elf_getdata(stab, NULL);
90     textdata = elf_rawdata(text, NULL);
91     for (unsigned symdatex = 0;
92          symdatex < (stabshdr.sh_size / stabshdr.sh_entsize);
93          symdatex++) {
94         (void) gelf_getsym(stabdata, symdatex, &ss.ss_sym);
95
96         if ((GELF_ST_TYPE(ss.ss_sym.st_info) != STT_FUNC) ||
97             (ss.ss_sym.st_shndx == SHN_UNDEF))
98             continue;
99
100        ss.ss_name = elf_strptr(elf, stabshdr.sh_link,
101                               ss.ss_sym.st_name);
102        ss.ss_data = ((uint8_t *) (textdata->d_buf)) +
103                     (ss.ss_sym.st_value - textshdr.sh_addr);
104
105        if (ctf_func_info(fp, symdatex, &ss.ss_finfo) == CTF_ERR) {
106            fprintf(stderr, "failed to get funcinfo for: %s\n",
107                    ss.ss_name);
108            continue;
109        }
110
111        (void) callback(fp, &ss);
112    }
113 }
114
115 void
116 check_sym(ctf_file_t *ctfp, symtab_sym_t *ss)
117 {
118     int rettype = ctf_type_kind(ctfp, ss->ss_finfo.ctc_return);
119     int start_index = 0;
120
121     if (ss->ss_finfo.ctc_argc == 0) /* No arguments, no point */
122         return;
123
124     if (((rettype == CTF_K_STRUCT) || (rettype == CTF_K_UNION)) &&
```

2

```
125         ctf_type_size(ctfp, ss->ss_finfo.ctc_return) > 16)
126         start_index = 1;
128     if (saveargs_has_args(ss->ss_data, ss->ss_sym.st_size,
129         ss->ss_finfo.ctc_argc, start_index) != SAVEARGS_NO_ARGS)
130         printf("%s has %d saved args\n", ss->ss_name,
131             ss->ss_finfo.ctc_argc);
132 }
134 int
135 main(int argc, char **argv)
136 {
137     Elf           *elf;
138     ctf_file_t    *ctfp;
139     int errp, fd;
141     if (ctf_version(CTF_VERSION) == -1)
142         errx(1, "mismatched libctf versions\n");
144     if (elf_version(EV_CURRENT) == EV_NONE)
145         errx(1, "mismatched libelf versions\n");
147     if (argc != 2)
148         errx(2, "usage: %s <file>\n", __progname);
150     if ((ctfp = ctf_open(argv[1], &errp)) == NULL)
151         errx(1, "failed to ctf_open file: %s: %s\n", argv[1],
152             ctf_errmsg(errp));
154     if ((fd = open(argv[1], O_RDONLY)) == -1)
155         errx(1, "could not open %s\n", argv[1]);
157     if ((elf = elf_begin(fd, ELF_C_READ, NULL)) == NULL)
158         errx(1, "could not interpret ELF from %s\n",
159             argv[1]);
161     walk_symtab(elf, argv[1], ctfp, check_sym);
163     (void) elf_end(elf);
164     (void) close(fd);
166     return (0);
167 }
168 #endif /* ! codereview */
```

```
new/usr/src/lib/libsaveargs/tests/testmatch/Makefile
*****
767 Mon Mar 4 20:43:37 2013
new/usr/src/lib/libsaveargs/tests/testmatch/Makefile
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
*****
```

1

```
2 #endif /* ! codereview */
3 #
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11 # http://www.illumos.org/license/CDDL.
12 #

14 #
15 # Copyright 2012, Richard Lowe.
16 #

18 include $(SRC)/Makefile.master
19 include $(SRC)/Makefile.master.64

21 .KEEP_STATE:

23 OBJECTS = testmatch.o data.o
24 OBJECTS = testmatch.o saveargs.o data.o
24 PROG = testmatch

26 LDLIBS64 += -lsaveargs

4 CPPFLAGS += -I$(SRC)/common/saveargs
28 ASFLAGS += -P
29 AS_CPPFLAGS += -D_ASM

8 %.o: $(SRC)/common/saveargs/%.c
9     $(COMPILE.c) -o $@ $<

31 $(PROG): $(OBJECTS)
32     $(LINK.c) -o $@ $(OBJECTS) $(LDLIBS64)
12     $(LINK.c) -o $@ $(OBJECTS) -lc

34 clean:
35     $(RM) $(OBJECTS) $(PROG)

37 clobber: clean

39 all: $(PROG)

41 install: all
```

```
new/usr/src/lib/libsaveargs/tests/testmatch/data.s
```

```
*****  
10515 Mon Mar  4 20:43:37 2013  
new/usr/src/lib/libsaveargs/tests/testmatch/data.s  
3544 save-args matcher could be considerably more robust  
3545 save-args matcher should accept saves may be out-of-order  
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>  
Reviewed by: Robert Mustacchi <rm@joyent.com>  
*****  
unchanged_portion_omitted_
```

```
67 FUNC(gcc_mov_noorder)  
68 pushq %rbp  
69 movq %rsp, %rbp  
70 movq %rcx,-0x20(%rbp)  
71 movq %rbx,-0x28(%rbp)  
72 movq %rdi,-0x8(%rbp)  
73 movq %rdx,-0x18(%rbp)  
74 movq %rsi,-0x10(%rbp)  
75 subq $0x50,%rsp  
76 SET_SIZE(gcc_mov_noorder, gcc_mov_noorder_end)  
77  
78 #endif /* ! codereview */  
79 FUNC(gcc_mov_big_struct_ret)  
80 pushq %rbp  
81 movq %rsp,%rbp  
82 movq %rbx,-0x28(%rbp)  
83 movq %r8,-0x20(%rbp)  
84 movq %rcx,-0x18(%rbp)  
85 movq %rdx,-0x10(%rbp)  
86 movq %rsi,-0x8(%rbp)  
87 subq $0x50,%rsp  
88 SET_SIZE(gcc_mov_big_struct_ret, gcc_mov_big_struct_ret_end)  
  
90 FUNC(gcc_mov_struct_noorder)  
91 pushq %rbp  
92 movq %rsp,%rbp  
93 movq %rcx,-0x18(%rbp)  
94 movq %r8,-0x20(%rbp)  
95 movq %rsi,-0x8(%rbp)  
96 movq %rdx,-0x10(%rbp)  
97 movq %rbx,-0x28(%rbp)  
98 subq $0x50,%rsp  
99 SET_SIZE(gcc_mov_struct_noorder, gcc_mov_struct_noorder_end)  
  
101 #endif /* ! codereview */  
102 FUNC(gcc_mov_big_struct_ret_and_spill)  
103 pushq %rbp  
104 movq %rsp,%rbp  
105 movq %rbx,-0x38(%rbp)  
106 movq %r9,-0x28(%rbp)  
107 movq %r8,-0x20(%rbp)  
108 movq %rcx,-0x18(%rbp)  
109 movq %rdx,-0x10(%rbp)  
110 movq %rsi,-0x8(%rbp)  
111 subq $0x90,%rsp  
112 SET_SIZE(gcc_mov_big_struct_ret_and_spill, gcc_mov_big_struct_ret_and_spill_end)  
  
114 FUNC(gcc_mov_small_struct_ret)  
115 pushq %rbp  
116 movq %rsp,%rbp  
117 movq %rbx,-0x28(%rbp)  
118 movq %rcx,-0x20(%rbp)  
119 movq %rdx,-0x18(%rbp)  
120 movq %rsi,-0x10(%rbp)  
121 movq %rdi,-0x8(%rbp)  
122 subq $0x50,%rsp
```

```
1
```

```
new/usr/src/lib/libsaveargs/tests/testmatch/data.s  
*****  
123 SET_SIZE(gcc_mov_small_struct_ret, gcc_mov_small_struct_ret_end)  
125 FUNC(gcc_mov_small_struct_ret_and_spill)  
126 pushq %rbp  
127 movq %rsp,%rbp  
128 movq %rbx,-0x38(%rbp)  
129 movq %r9,-0x30(%rbp)  
130 movq %r8,-0x28(%rbp)  
131 movq %rcx,-0x20(%rbp)  
132 movq %rdx,-0x18(%rbp)  
133 movq %rsi,-0x10(%rbp)  
134 movq %rdi,-0x8(%rbp)  
135 subq $0x90,%rsp  
136 SET_SIZE(gcc_mov_small_struct_ret_and_spill, gcc_mov_small_struct_ret_and_spill_end)  
138 FUNC(gcc_mov_stack_spill)  
139 pushq %rbp  
140 movq %rsp,%rbp  
141 movq %rbx,-0x38(%rbp)  
142 movq %r9,-0x30(%rbp)  
143 movq %r8,-0x28(%rbp)  
144 movq %rcx,-0x20(%rbp)  
145 movq %rdx,-0x18(%rbp)  
146 movq %rsi,-0x10(%rbp)  
147 movq %rdi,-0x8(%rbp)  
148 subq $0x90,%rsp  
149 SET_SIZE(gcc_mov_stack_spill, gcc_mov_stack_spill_end)  
151 FUNC(gcc_push_align)  
152 pushq %rbp  
153 movq %rsp,%rbp  
154 pushq %rdi  
155 pushq %rsi  
156 pushq %rdx  
157 pushq %rcx  
158 pushq %r8  
159 subq $0x8,%rsp  
160 subq $0x30,%rsp  
161 SET_SIZE(gcc_push_align, gcc_push_align_end)  
163 FUNC(gcc_push_basic)  
164 pushq %rbp  
165 movq %rsp,%rbp  
166 pushq %rdi  
167 pushq %rsi  
168 pushq %rdx  
169 pushq %rcx  
170 subq $0x20,%rsp  
171 SET_SIZE(gcc_push_basic, gcc_push_basic_end)  
173 FUNC(gcc_push_noorder)  
174 pushq %rbp  
175 movq %rsp,%rbp  
176 pushq %rsi  
177 pushq %rdi  
178 pushq %rcx  
179 pushq %rdx  
180 subq $0x20,%rsp  
181 SET_SIZE(gcc_push_noorder, gcc_push_noorder_end)  
183 #endif /* ! codereview */  
184 FUNC(gcc_push_big_struct_ret)  
185 pushq %rbp  
186 movq %rsp,%rbp  
187 pushq %rsi  
188 pushq %rdx
```

```
2
```

```

189 pushq %rcx
190 pushq %r8
191 subq $0x30,%rsp
192 SET_SIZE(gcc_push_big_struct_ret, gcc_push_struct_ret_end)

194 FUNC(gcc_push_struct_noorder)
195 pushq %rbp
196 movq %rsp,%rbp
197 pushq %rdx
198 pushq %rsi
199 pushq %r8
200 pushq %rcx
201 subq $0x30,%rsp
202 SET_SIZE(gcc_push_struct_noorder, gcc_push_struct_noorder_end)
203

204 #endif /* ! codereview */
205 FUNC(gcc_push_big_struct_ret_and_spill)
206 pushq %rbp
207 movq %rsp,%rbp
208 pushq %rsi
209 pushq %rdx
210 pushq %rcx
211 pushq %r8
212 pushq %r9
213 subq $0x8,%rsp
214 subq $0x50,%rsp
215 SET_SIZE(gcc_push_big_struct_ret_and_spill, gcc_push_big_struct_ret_and_spill_end)

217 FUNC(gcc_push_small_struct_ret)
218 pushq %rbp
219 movq %rsp,%rbp
220 pushq %rdi
221 pushq %rsi
222 pushq %rdx
223 pushq %rcx
224 subq $0x20,%rsp
225 SET_SIZE(gcc_push_small_struct_ret, gcc_push_small_struct_ret_end)

227 FUNC(gcc_push_small_struct_ret_and_spill)
228 pushq %rbp
229 movq %rsp,%rbp
230 pushq %rdi
231 pushq %rsi
232 pushq %rdx
233 pushq %rcx
234 pushq %r8
235 pushq %r9
236 subq $0x50,%rsp
237 SET_SIZE(gcc_push_small_struct_ret_and_spill, gcc_push_small_struct_ret_and_spill_end)

239 FUNC(gcc_push_stack_spill)
240 pushq %rbp
241 movq %rsp,%rbp
242 pushq %rdi
243 pushq %rsi
244 pushq %rdx
245 pushq %rcx
246 pushq %r8
247 pushq %r9
248 subq $0x50,%rsp
249 SET_SIZE(gcc_push_stack_spill, gcc_push_stack_spill_end)

251 FUNC(ss_mov_align)
252 pushq %rbp
253 movq %rsp,%rbp
254 subq $0x30,%rsp

```

```

255 movq %rdi,-0x8(%rbp)
256 movq %rsi,-0x10(%rbp)
257 movq %rdx,-0x18(%rbp)
258 movq %rcx,-0x20(%rbp)
259 movq %r8,-0x28(%rbp)
260 SET_SIZE(ss_mov_align, ss_mov_align_end)

262 FUNC(ss_mov_basic)
263 pushq %rbp
264 movq %rsp,%rbp
265 subq $0x20,%rsp
266 movq %rdi,-0x8(%rbp)
267 movq %rsi,-0x10(%rbp)
268 movq %rdx,-0x18(%rbp)
269 movq %rcx,-0x20(%rbp)
270 SET_SIZE(ss_mov_basic, ss_mov_basic_end)

272 FUNC(ss_mov_big_struct_ret)
273 pushq %rbp
274 movq %rsp,%rbp
275 subq $0x30,%rsp
276 movq %rdi,-0x8(%rbp)
277 movq %rsi,-0x10(%rbp)
278 movq %rdx,-0x18(%rbp)
279 movq %rcx,-0x20(%rbp)
280 movq %r8,-0x28(%rbp)
281 SET_SIZE(ss_mov_big_struct_ret, ss_mov_big_struct_ret_end)

283 FUNC(ss_mov_big_struct_ret_and_spill)
284 pushq %rbp
285 movq %rsp,%rbp
286 subq $0x50,%rsp
287 movq %rdi,-0x8(%rbp)
288 movq %rsi,-0x10(%rbp)
289 movq %rdx,-0x18(%rbp)
290 movq %rcx,-0x20(%rbp)
291 movq %r8,-0x28(%rbp)
292 movq %r9,-0x30(%rbp)
293 SET_SIZE(ss_mov_big_struct_ret_and_spill, ss_mov_big_struct_ret_and_spill_end)

295 FUNC(ss_mov_small_struct_ret)
296 pushq %rbp
297 movq %rsp,%rbp
298 subq $0x20,%rsp
299 movq %rdi,-0x8(%rbp)
300 movq %rsi,-0x10(%rbp)
301 movq %rdx,-0x18(%rbp)
302 movq %rcx,-0x20(%rbp)
303 SET_SIZE(ss_mov_small_struct_ret, ss_mov_small_struct_ret_end)

305 FUNC(ss_mov_small_struct_ret_and_spill)
306 pushq %rbp
307 movq %rsp,%rbp
308 subq $0x50,%rsp
309 movq %rdi,-0x8(%rbp)
310 movq %rsi,-0x10(%rbp)
311 movq %rdx,-0x18(%rbp)
312 movq %rcx,-0x20(%rbp)
313 movq %r8,-0x28(%rbp)
314 movq %r9,-0x30(%rbp)
315 SET_SIZE(ss_mov_small_struct_ret_and_spill, ss_mov_small_struct_ret_and_spill_end)

317 FUNC(ss_mov_stack_spill)
318 pushq %rbp
319 movq %rsp,%rbp
320 subq $0x50,%rsp

```

```

321 movq    %rdi,-0x8(%rbp)
322 movq    %rsi,-0x10(%rbp)
323 movq    %rdx,-0x18(%rbp)
324 movq    %rcx,-0x20(%rbp)
325 movq    %r8,-0x28(%rbp)
326 movq    %r9,-0x30(%rbp)
327 SET_SIZE(ss_mov_stack_spill, ss_mov_stack_spill_end)

329 /* DTrace instrumentation */
330 FUNC(dtrace_instrumented)
331 int     $0x3
332 movq    %rsp, %rbp
333 movq    %rbx,-0x28(%rbp)
334 movq    %rcx,-0x20(%rbp)
335 movq    %rdx,-0x18(%rbp)
336 movq    %rsi,-0x10(%rbp)
337 movq    %rdi,-0x8(%rbp)
338 subq    $0x50,%rsp
339 SET_SIZE(dtrace_instrumented, dtrace_instrumented_end)

341 /*
342 * System functions with special characteristics, be they non-initial FP save,
343 * gaps between FP save and argument saving, or gaps between saved arguments.
344 */
345 FUNC(kmem_alloc)
346 leaq    -0x1(%rdi),%rax
347 pushq   %rbp
348 movq    %rax,%rdx
349 movq    %rsp,%rbp
350 subq    $0x30,%rsp
351 shrq    $0x3,%rdx
352 movq    %r12,-0x28(%rbp)
353 movq    %rbx,-0x30(%rbp)
354 cmpq    $0x1ff,%rdx
355 movq    %r13,-0x20(%rbp)
356 movq    %r14,-0x18(%rbp)
357 movq    %rsi,-0x10(%rbp)
358 movq    %rdi,-0x8(%rbp)
359 movq    %rdi,%r12
360 SET_SIZE(kmem_alloc, kmem_alloc_end)

362 FUNC(uts_kill)
363 pushq   %rbp
364 movq    %rsp,%rbp
365 subq    $0x50,%rsp
366 movq    %rbx,-0x28(%rbp)
367 leaq    -0x50(%rbp),%rbx
368 movq    %r12,-0x20(%rbp)
369 movq    %r13,-0x18(%rbp)
370 movq    %rsi,-0x10(%rbp)
371 movl    %edi,%r12d
372 movq    %rdi,-0x8(%rbp)
373 SET_SIZE(uts_kill, uts_kill_end)

375 FUNC(avl1394_ic_bitreverse)
376 movq    %rdi,%rdx
377 movq    $0x5555555555555555,%rax
378 movq    $0x3333333333333333,%rcx
379 shrq    $0x1,%rdx
380 pushq   %rbp
381 andq    %rax,%rdx
382 andq    %rdi,%rax
383 addq    %rax,%rax
384 movq    %rsp,%rbp
385 subq    $0x10,%rsp
386 orq    %rdx,%rax

```

```

387 movq    %rdi,-0x8(%rbp)
388 SET_SIZE(avl1394_ic_bitreverse, avl1394_ic_bitreverse_end)

390 /* Problematic functions which should not match */

392 FUNC(no_fp) /* No frame pointer */
393 movq    %rdi, %rsi
394 movq    %rsi, %rdi
395 movq    %rbx,-0x28(%rbp)
396 movq    %rcx,-0x20(%rbp)
397 movq    %rdx,-0x18(%rbp)
398 movq    %rsi,-0x10(%rbp)
399 movq    %rdi,-0x8(%rbp)
400 subq    $0x50,%rsp
401 SET_SIZE(no_fp, no_fp_end)

403 /* Small structure return, but with an SSE type (thus forcing it to the stack) */
404 FUNC(small_struct_ret_w_float)
405 pushq   %rbp
406 movq    %rsp,%rbp
407 movq    %rdi,-0x8(%rbp)
408 subq    $0x30,%rsp
409 SET_SIZE(small_struct_ret_w_float, small_struct_ret_w_float_end)

411 /* Big structure return, but with an SSE type */
412 FUNC(big_struct_ret_w_float)
413 pushq   %rbp
414 movq    %rsp,%rbp
415 movq    %rsi,-0x8(%rbp)
416 subq    $0x50,%rsp
417 movq    %rsi,-0x48(%rbp)
418 movq    -0x48(%rbp),%rax
419 movq    %rax,%rsi
420 movl    $0x400f60,%edi
421 movl    $0x0,%eax
422 movl    $0x1770,%edi
423 movl    $0x0,%eax
424 leave
425 ret
426 SET_SIZE(big_struct_ret_w_float, big_struct_ret_w_float_end)

428 FUNC(big_struct_arg_by_value)
429 pushq   %rbp
430 movq    %rsp,%rbp
431 movq    %rdi,-0x8(%rbp)
432 subq    $0x40,%rsp
433 SET_SIZE(big_struct_arg_by_value, big_struct_arg_by_value_end)

435 FUNC(small_struct_arg_by_value)
436 pushq   %rbp
437 movq    %rsp,%rbp
438 movq    %rdx,-0x18(%rbp)
439 movq    %rsi,-0x10(%rbp)
440 movq    %rdi,-0x8(%rbp)
441 subq    $0x50,%rsp
442 SET_SIZE(small_struct_arg_by_value, small_struct_arg_by_value_end)

444 FUNC(interleaved_argument_saves)
445 pushq   %rbp
446 movq    %rdi,%rax
447 shlq    $0x21,%rax
448 movq    %rsp,%rbp
449 shrq    $0x29,%rax
450 subq    $0x30,%rsp
451 movq    %rdi,-0x8(%rbp)
452 movq    %rbx,-0x28(%rbp)

```

```
453 movzbl %dil,%edi
454 movq %rcx,-0x20(%rbp)
455 movq %rdx,-0x18(%rbp)
456 movq %rsi,-0x10(%rbp)
457 movq 0x0(%rax,8),%rax
458 SET_SIZE(interleaved_argument_saves, interleaved_argument_saves_end)
459 #endif /* ! codereview */
```

new/usr/src/lib/libsaveargs/tests/testmatch/testmatch.c

```
*****
4860 Mon Mar  4 20:43:38 2013
new/usr/src/lib/libsaveargs/tests/testmatch/testmatch.c
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
*****
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 2012, Richard Lowe.
14 */

16 #include <stdio.h>
17 #include <sys/types.h>
18 #include <saveargs.h>

20 #define DEF_TEST(name)          \
21     extern uint8_t name[];      \
22     extern int name##_end

24 #define SIZE_OF(name) ((caddr_t)&name##_end - (caddr_t)&name)

26 #define TEST_GOOD(name, argc)    \
27     if (saveargs_has_args(name, SIZE_OF(name), argc, 0) == \
28         SAVEARGS_TRAD_ARGS)
27     if (saveargs_has_args(name, SIZE_OF(name), argc, 0) != 0) \
29         printf("Pass: %s\n", #name);
30     else
31         printf("FAIL: %s\n", #name);

33 #define TEST_GOOD_STRUCT(name, argc) \
34     if (saveargs_has_args(name, SIZE_OF(name), argc, 1) == \
35         SAVEARGS_STRUCT_ARGS)
36     printf("Pass: %s\n", #name);
37     else
38         printf("FAIL: %s\n", #name);

40 /*
41  * GCC deals with structures differently, so TRAD args is actually correct for
42  * this
43 */
44 #define TEST_GOOD_GSTRUCT(name, argc) \
45     if (saveargs_has_args(name, SIZE_OF(name), argc, 1) == \
46         SAVEARGS_TRAD_ARGS)
47     if (saveargs_has_args(name, SIZE_OF(name), argc, 1) != 0) \
48         printf("Pass: %s\n", #name);
49     else
50         printf("FAIL: %s\n", #name);

51 #define TEST_BAD(name, argc)      \
52     if (saveargs_has_args(name, SIZE_OF(name), argc, 0) == \
53         SAVEARGS_NO_ARGS)
54     if (saveargs_has_args(name, SIZE_OF(name), argc, 0) == 0) \
55         printf("Pass: %s\n", #name);
56     else
```

1

new/usr/src/lib/libsaveargs/tests/testmatch/testmatch.c

```
56             printf("FAIL: %s\n", #name);

58 #define TEST_BAD_STRUCT(name, argc) \
59     if (saveargs_has_args(name, SIZE_OF(name), argc, 1) == \
60         SAVEARGS_NO_ARGS)
61     printf("Pass: %s\n", #name);
62     else
63         printf("FAIL: %s\n", #name);

65 #define TEST_BAD_GSTRUCT(name, argc) \
66     if (saveargs_has_args(name, SIZE_OF(name), argc, 1) == \
67         SAVEARGS_NO_ARGS)
68     if (saveargs_has_args(name, SIZE_OF(name), argc, 1) == 0) \
69         printf("Pass: %s\n", #name);
70     else
71         printf("FAIL: %s\n", #name);

72 DEF_TEST(gcc_mov_align);
73 DEF_TEST(gcc_mov_basic);
74 DEF_TEST(gcc_mov_noorder);
75 DEF_TEST(gcc_mov_struct_noorder);
76 #endif /* ! codereview */
77 DEF_TEST(gcc_mov_big_struct_ret);
78 DEF_TEST(gcc_mov_big_struct_ret_and_spill);
79 DEF_TEST(gcc_mov_small_struct_ret);
80 DEF_TEST(gcc_mov_small_struct_ret_and_spill);
81 DEF_TEST(gcc_mov_stack_spill);

83 DEF_TEST(gcc_push_align);
84 DEF_TEST(gcc_push_basic);
85 DEF_TEST(gcc_push_noorder);
86 DEF_TEST(gcc_push_struct_noorder);
87 #endif /* ! codereview */
88 DEF_TEST(gcc_push_big_struct_ret);
89 DEF_TEST(gcc_push_big_struct_ret_and_spill);
90 DEF_TEST(gcc_push_small_struct_ret);
91 DEF_TEST(gcc_push_small_struct_ret_and_spill);
92 DEF_TEST(gcc_push_stack_spill);

94 DEF_TEST(ss_mov_align);
95 DEF_TEST(ss_mov_basic);
96 DEF_TEST(ss_mov_big_struct_ret);
97 DEF_TEST(ss_mov_big_struct_ret_and_spill);
98 DEF_TEST(ss_mov_small_struct_ret);
99 DEF_TEST(ss_mov_small_struct_ret_and_spill);
100 DEF_TEST(ss_mov_stack_spill);

102 DEF_TEST(dtrace_instrumented);
103 DEF_TEST(kmem_alloc);
104 DEF_TEST(uts_kill);
105 DEF_TEST(av1394_ic_bitreverse);

107 DEF_TEST(small_struct_ret_w_float);
108 DEF_TEST(big_struct_ret_w_float);

110 DEF_TEST(interleaved_argument_saves);

112 #endif /* ! codereview */
113 /*
114  * Functions which should not match
115  *
116  * no_fp           -- valid save-args sequence with no saved FP
117  * big_struct_arg_by_value -- function with big struct passed by value
118  * small_struct_arg_by_value -- function with small struct passed by value
119  */
120 DEF_TEST(no_fp);
```

2

```
121 DEF_TEST(big_struct_arg_by_value);
122 DEF_TEST(small_struct_arg_by_value);

124 int
125 main(int argc, char **argv)
126 {
127     TEST_GOOD(kmem_alloc, 2);
128     TEST_GOOD(uts_kill, 2);
129     TEST_GOOD(av1394_ic_bitreverse, 1);
130     TEST_GOOD(dtrace_instrumented, 4);
131     TEST_GOOD_GSTRUCT(big_struct_ret_w_float, 1);
132     TEST_GOOD_STRUCT(big_struct_ret_w_float, 1);
133     TEST_BAD(no_fp, 5);

134     TEST_GOOD(gcc_mov_align, 5);
135     TEST_GOOD(gcc_push_align, 5);
136     TEST_GOOD(ss_mov_align, 5);

138     TEST_GOOD(gcc_mov_basic, 4);
139     TEST_GOOD(gcc_push_basic, 4);
140     TEST_GOOD(ss_mov_basic, 4);

142     TEST_GOOD(gcc_mov_noorder, 4);
143     TEST_GOOD(gcc_push_noorder, 4);

145     TEST_GOOD_GSTRUCT(gcc_mov_big_struct_ret, 4);
146     TEST_GOOD_GSTRUCT(gcc_push_big_struct_ret, 4);
147     TEST_GOOD_STRUCT(gcc_mov_big_struct_ret, 4);
148     TEST_GOOD_STRUCT(gcc_push_big_struct_ret, 4);
149     TEST_GOOD_STRUCT(ss_mov_big_struct_ret, 4);

152     TEST_GOOD_GSTRUCT(gcc_mov_big_struct_ret_and_spill, 8);
153     TEST_GOOD_GSTRUCT(gcc_push_big_struct_ret_and_spill, 8);
154     TEST_GOOD_STRUCT(gcc_mov_big_struct_ret_and_spill, 8);
155     TEST_GOOD_STRUCT(gcc_push_big_struct_ret_and_spill, 8);
156     TEST_GOOD_STRUCT(ss_mov_big_struct_ret_and_spill, 8);

158     TEST_GOOD(gcc_mov_small_struct_ret, 4);
159     TEST_GOOD(gcc_push_small_struct_ret, 4);
160     TEST_GOOD(ss_mov_small_struct_ret, 4);

162     TEST_GOOD(gcc_mov_small_struct_ret_and_spill, 8);
163     TEST_GOOD(gcc_push_small_struct_ret_and_spill, 8);
164     TEST_GOOD(ss_mov_small_struct_ret_and_spill, 8);

166     TEST_GOOD(gcc_mov_stack_spill, 8);
167     TEST_GOOD(gcc_push_stack_spill, 8);
168     TEST_GOOD(ss_mov_stack_spill, 8);

170     TEST_BAD(big_struct_arg_by_value, 2);
171     TEST_BAD(small_struct_arg_by_value, 2);

173     TEST_GOOD(interleaved_argument_saves, 4);

175 #endif /* ! codereview */
176     return (0);
177 }
```

new/usr/src/pkg/manifests/system-library.mf

```
*****
59950 Mon Mar  4 20:43:38 2013
new/usr/src/pkg/manifests/system-library.mf
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves may be out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
Reviewed by: Robert Mustacchi <rm@joyent.com>
*****
```

```
1 #
2 # CDDL HEADER START
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6 # You may not use this file except in compliance with the License.
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10 # See the License for the specific language governing permissions
11 # and limitations under the License.
12 #
13 # When distributing Covered Code, include this CDDL HEADER in each
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15 # If applicable, add the following below this CDDL HEADER, with the
16 # fields enclosed by brackets "[]" replaced with your own identifying
17 # information: Portions Copyright [yyyy] [name of copyright owner]
18 #
19 # CDDL HEADER END
20 #

22 #
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25 # Copyright 2012 OmniTI Computer Consulting, Inc. All rights reserved.
26 #

28 <include system-library.man3.inc>
29 <include system-library.man3bsm.inc>
30 <include system-library.man3c.inc>
31 <include system-library.man3c_db.inc>
32 <include system-library.man3cfgadm.inc>
33 <include system-library.man3compututil.inc>
34 <include system-library.man3contract.inc>
35 <include system-library.man3curses.inc>
36 <include system-library.man3devid.inc>
37 <include system-library.man3devinfo.inc>
38 <include system-library.man3dlpi.inc>
39 <include system-library.man3elf.inc>
40 <include system-library.man3exacct.inc>
41 <include system-library.man3ext.inc>
42 <include system-library.man3fstyp.inc>
43 <include system-library.man3gen.inc>
44 <include system-library.man3kstat.inc>
45 <include system-library.man3 kvm.inc>
46 <include system-library.man3ldap.inc>
47 <include system-library.man3lgrp.inc>
48 <include system-library.man3lib.inc>
49 <include system-library.man3mail.inc>
50 <include system-library.man3malloc.inc>
51 <include system-library.man3mp.inc>
52 <include system-library.man3ns1.inc>
53 <include system-library.man3nvpair.inc>
54 <include system-library.man3pam.inc>
55 <include system-library.man3scf.inc>
56 <include system-library.man3sec.inc>
57 <include system-library.man3secdb.inc>
58 <include system-library.man3sip.inc>
```

1

new/usr/src/pkg/manifests/system-library.mf

```
59 <include system-library.man3socket.inc>
60 <include system-library.man3tsol.inc>
61 <include system-library.man3uuid.inc>
62 <include system-library.man3volmgmt.inc>
63 <include system-library.man3xcurses.inc>
64 <include system-library.man3xnet.inc>
65 <include system-library.man4.inc>
66 <include system-library.man5.inc>
67 <include system-library.man7p.inc>
68 set name=pkg.fmri value=PKG:/system/library@$(PKGVERS)
69 set name=pkg.description \
70     value="core shared libraries for a specific instruction-set architecture"
71 set name=pkg.summary value="Core Solaris, (Shared Libs)"
72 set name=info.classification value=org.opensolaris.category.2008:System/Core
73 set name=variant.arch value=$(ARCH)
74 $(i386_ONLY)dir path=etc group=sys
75 $(i386_ONLY)dir path=/etc/flash group=sys
76 $(i386_ONLY)dir path=/etc/flash/postcreation group=sys mode=0700
77 $(i386_ONLY)dir path=/etc/flash/precreation group=sys mode=0700
78 $(i386_ONLY)dir path=/etc/flash/preexit group=sys mode=0700
79 dir path=lib
80 dir path=lib/$(ARCH64)
81 dir path=lib/crypto
82 dir path=lib/crypto/$(ARCH64)
83 dir path=lib/mpxio
84 dir path=lib/secure
85 dir path=lib/secure/$(ARCH64)
86 dir path=usr group=sys
87 dir path=usr/bin
88 dir path=usr/ccs
89 dir path=usr/ccs/lib
90 dir path=usr/ccs/lib/$(ARCH64)
91 dir path=usr/lib
92 dir path=usr/lib/$(ARCH64)
93 dir path=usr/lib/cfgadm
94 dir path=usr/lib/cfgadm/$(ARCH64)
95 dir path=usr/lib/iconv/$(ARCH64)
96 $(i386_ONLY)dir path=usr/lib/libc
97 dir path=usr/lib/lwp
98 dir path=usr/lib/lwp/$(ARCH64)
99 dir path=usr/lib/python2.6
100 dir path=usr/lib/python2.6/vendor-packages
101 dir path=usr/lib/python2.6/vendor-packages/solaris
102 dir path=usr/lib/raidcfg
103 dir path=usr/lib/raidcfg/$(ARCH64)
104 dir path=usr/lib/scsi
105 dir path=usr/lib/scsi/$(ARCH64)
106 dir path=usr/lib/scsi/plugins
107 dir path=usr/lib/scsi/plugins/scsi
108 dir path=usr/lib/scsi/plugins/scsi/engines
109 dir path=usr/lib/scsi/plugins/scsi/engines/$(ARCH64)
110 dir path=usr/lib/scsi/plugins/ses
111 dir path=usr/lib/scsi/plugins/ses/framework
112 dir path=usr/lib/scsi/plugins/ses/framework/$(ARCH64)
113 dir path=usr/lib/scsi/plugins/ses/vendor
114 $(sparc_ONLY)dir path=usr/lib/scsi/plugins/ses/vendor/$(ARCH64)
115 dir path=usr/lib/scsi/plugins/smp
116 dir path=usr/lib/scsi/plugins/smp/engine
117 dir path=usr/lib/scsi/plugins/smp/engine/$(ARCH64)
118 dir path=usr/lib/scsi/plugins/smp/framework
119 dir path=usr/lib/scsi/plugins/smp/framework/$(ARCH64)
120 dir path=usr/lib/security
121 dir path=usr/lib/security/$(ARCH64)
122 dir path=usr/share/man
123 dir path=usr/share/man/man3
124 dir path=usr/share/man/man3bsm
```

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```

125 dir path=usr/share/man/man3c
126 dir path=usr/share/man/man3c_db
127 dir path=usr/share/man/man3cfgadm
128 dir path=usr/share/man/man3compututil
129 dir path=usr/share/man/man3contract
130 dir path=usr/share/man/man3curses
131 dir path=usr/share/man/man3devid
132 dir path=usr/share/man/man3devinfo
133 dir path=usr/share/man/man3dlpi
134 dir path=usr/share/man/man3elf
135 dir path=usr/share/man/man3exact
136 dir path=usr/share/man/man3ext
137 dir path=usr/share/man/man3fstyp
138 dir path=usr/share/man/man3gen
139 dir path=usr/share/man/man3kstat
140 dir path=usr/share/man/man3 kvm
141 dir path=usr/share/man/man3ldap
142 dir path=usr/share/man/man3lgrp
143 dir path=usr/share/man/man3lib
144 dir path=usr/share/man/man3mail
145 dir path=usr/share/man/man3malloc
146 dir path=usr/share/man/man3mp
147 dir path=usr/share/man/man3ns1
148 dir path=usr/share/man/man3nvpair
149 dir path=usr/share/man/man3pam
150 dir path=usr/share/man/man3pool
151 dir path=usr/share/man/man3scf
152 dir path=usr/share/man/man3sec
153 dir path=usr/share/man/man3secdb
154 dir path=usr/share/man/man3sip
155 dir path=usr/share/man/man3socket
156 dir path=usr/share/man/man3tsol
157 dir path=usr/share/man/man3uuid
158 dir path=usr/share/man/man3volmgmt
159 dir path=usr/share/man/man3xcurses
160 dir path=usr/share/man/man3xnet
161 dir path=usr/share/man/man5
162 dir path=usr/share/man/man7p
163 dir path=xpg4
164 dir path=xpg4/lib/$(ARCH64)
165 dir path=xpg4/lib/$(ARCH64)
166 $(i386_ONLY)file path=/etc/flash/precreation/caplib group=sys mode=0500
167 file path=lib/$(ARCH64)/c_synonyms.so.1
168 file path=lib/$(ARCH64)/ld.so.1
169 file path=lib/$(ARCH64)/libadm.so.1
170 file path=lib/$(ARCH64)/libaio.so.1
171 file path=lib/$(ARCH64)/libavl.so.1
172 file path=lib/$(ARCH64)/libbsm.so.1
173 file path=lib/$(ARCH64)/libc.so.1
174 file path=lib/$(ARCH64)/libc_db.so.1
175 file path=lib/$(ARCH64)/libcmutils.so.1
176 file path=lib/$(ARCH64)/libcontract.so.1
177 file path=lib/$(ARCH64)/libcryptoutil.so.1
178 file path=lib/$(ARCH64)/libctf.so.1
179 file path=lib/$(ARCH64)/libcurses.so.1
180 file path=lib/$(ARCH64)/libdevice.so.1
181 file path=lib/$(ARCH64)/libdevid.so.1
182 file path=lib/$(ARCH64)/libdevinfo.so.1
183 file path=lib/$(ARCH64)/libdhcputil.so.1
184 file path=lib/$(ARCH64)/libdl.so.1
185 file path=lib/$(ARCH64)/libdladm.so.1
186 file path=lib/$(ARCH64)/libdlpi.so.1
187 file path=lib/$(ARCH64)/libdoor.so.1
188 file path=lib/$(ARCH64)/libelfi.so.1
189 file path=lib/$(ARCH64)/libelf.so.1
190 $(i386_ONLY)file path=lib/$(ARCH64)/libfdisk.so.1

```

```

191 file path=lib/$(ARCH64)/libgen.so.1
192 file path=lib/$(ARCH64)/libinetutil.so.1
193 file path=lib/$(ARCH64)/libintl.so.1
194 file path=lib/$(ARCH64)/libkmf.so.1
195 file path=lib/$(ARCH64)/libkmfberder.so.1
196 file path=lib/$(ARCH64)/libkstat.so.1
197 file path=lib/$(ARCH64)/libld.so.4
198 file path=lib/$(ARCH64)/libldebug.so.4
199 file path=lib/$(ARCH64)/libmd.so.1
200 file path=lib/$(ARCH64)/libmd5.so.1
201 file path=lib/$(ARCH64)/libmp.so.2
202 file path=lib/$(ARCH64)/libns1.so.1
203 file path=lib/$(ARCH64)/libnvpair.so.1
204 file path=lib/$(ARCH64)/libpam.so.1
205 file path=lib/$(ARCH64)/libproc.so.1
206 file path=lib/$(ARCH64)/libpthread.so.1
207 file path=lib/$(ARCH64)/librcm.so.1
208 file path=lib/$(ARCH64)/libresolv.so.2
209 file path=lib/$(ARCH64)/librestart.so.1
210 file path=lib/$(ARCH64)/librpcsvc.so.1
211 file path=lib/$(ARCH64)/librt.so.1
212 file path=lib/$(ARCH64)/librtld.so.1
213 file path=lib/$(ARCH64)/librtld_db.so.1
214 file path=lib/$(ARCH64)/libscf.so.1
215 file path=lib/$(ARCH64)/libsec.so.1
216 file path=lib/$(ARCH64)/libsecdb.so.1
217 file path=lib/$(ARCH64)/libsendfile.so.1
218 file path=lib/$(ARCH64)/libsocket.so.1
219 file path=lib/$(ARCH64)/libsysevent.so.1
220 file path=lib/$(ARCH64)/libtermcap.so.1
221 file path=lib/$(ARCH64)/libthread.so.1
222 file path=lib/$(ARCH64)/libtsnet.so.1
223 file path=lib/$(ARCH64)/libtsol.so.2
224 file path=lib/$(ARCH64)/libumem.so.1
225 file path=lib/$(ARCH64)/libuuuid.so.1
226 file path=lib/$(ARCH64)/libuutil.so.1
227 file path=lib/$(ARCH64)/libw.so.1
228 file path=lib/$(ARCH64)/libxnet.so.1
229 file path=lib/$(ARCH64)/nss_compat.so.1
230 file path=lib/$(ARCH64)/nss_dns.so.1
231 file path=lib/$(ARCH64)/nss_files.so.1
232 file path=lib/$(ARCH64)/nss_nis.so.1
233 file path=lib/$(ARCH64)/nss_user.so.1
234 file path=lib/c_synonyms.so.1
235 file path=lib/crypto/$(ARCH64)/kmf_mapper_cn.so.1
236 file path=lib/crypto/$(ARCH64)/kmf_nss.so.1
237 file path=lib/crypto/$(ARCH64)/kmf_openssl.so.1
238 file path=lib/crypto/$(ARCH64)/kmf_pkcs11.so.1
239 file path=lib/crypto/kmf_mapper_cn.so.1
240 file path=lib/crypto/kmf_nss.so.1
241 file path=lib/crypto/kmf_openssl.so.1
242 file path=lib/crypto/kmf_pkcs11.so.1
243 file path=lib/ld.so.1
244 file path=lib/libadm.so.1
245 file path=lib/libaio.so.1
246 file path=lib/libavl.so.1
247 file path=lib/libbsm.so.1
248 file path=lib/libc.so.1 reboot-needed=true
249 file path=lib/libc_db.so.1
250 file path=lib/libcmutils.so.1
251 file path=lib/libcontract.so.1
252 file path=lib/libcryptoutil.so.1
253 file path=lib/libctf.so.1
254 file path=lib/libcurses.so.1
255 file path=lib/libdevice.so.1
256 file path=lib/libdevid.so.1

```

```

257 file path=lib/libdevinfo.so.1
258 file path=lib/libdhcagent.so.1
259 file path=lib/libdhcputil.so.1
260 file path=lib/libdl.so.1
261 file path=lib/libdladm.so.1
262 file path=lib/libdlpi.so.1
263 file path=lib/libdoor.so.1
264 file path=lib/libefi.so.1
265 file path=lib/libelf.so.1
266 file path=lib/libelfsign.so.1
267 $(i386_ONLY)file path=lib/libfdisk.so.1
268 file path=lib/libgen.so.1
269 file path=lib/libinetutil.so.1
270 file path=lib/libintl.so.1
271 file path=lib/libipadm.so.1
272 file path=lib/libipmp.so.1
273 file path=lib/libkfd.so.1
274 file path=lib/libkmf.so.1
275 file path=lib/libknfborder.so.1
276 file path=lib/libkstat.so.1
277 file path=lib/liblbd.so.4
278 file path=lib/liblddb.so.4
279 file path=lib/libmd.so.1
280 file path=lib/libm5.so.1
281 file path=lib/libmp.so.1
282 file path=lib/libmp.so.2
283 file path=lib/libnsl.so.1
284 file path=lib/libnvpair.so.1
285 file path=lib/libnwam.so.1
286 file path=lib/libpan.so.1
287 file path=lib/libproc.so.1
288 file path=lib/libpthread.so.1
289 file path=lib/librcm.so.1
290 file path=lib/libresolv.so.1
291 file path=lib/libresolv.so.2
292 file path=lib/librestart.so.1
293 file path=lib/librpcsvc.so.1
294 file path=lib/librt.so.1
295 file path=lib/librtld.so.1
296 file path=lib/librtld_db.so.1
297 file path=lib/libscf.so.1
298 file path=lib/libsec.so.1
299 file path=lib/libsecdb.so.1
300 file path=lib/libsendfile.so.1
301 file path=lib/libsocket.so.1
302 file path=lib/libsysevenet.so.1
303 file path=lib/libtermcap.so.1
304 file path=lib/libthread.so.1
305 file path=lib/libtunnel.so.1
306 file path=lib/libtsol.so.2
307 file path=lib/libumem.so.1
308 file path=lib/libuuid.so.1
309 file path=lib/libutil.so.1
310 file path=lib/libw.so.1
311 file path=lib/libxnet.so.1
312 file path=lib/mpxio/stmsboot_util mode=0555
313 file path=lib/nss_compat.so.1
314 file path=lib/nss_dns.so.1
315 file path=lib/nss_files.so.1
316 file path=lib/nss_nis.so.1
317 file path=lib/nss_user.so.1
318 file path=usr/lib/$(ARCH64)/0@.so.1
319 file path=usr/lib/$(ARCH64)/libadutils.so.1
320 file path=usr/lib/$(ARCH64)/libast.so.1
321 file path=usr/lib/$(ARCH64)/libbsdmalloc.so.1
322 file path=usr/lib/$(ARCH64)/libcfgadm.so.1

```

```

323 file path=usr/lib/$(ARCH64)/libcmd.so.1
324 file path=usr/lib/$(ARCH64)/libcommutil.so.1
325 file path=usr/lib/$(ARCH64)/libcrle.so.1
326 file path=usr/lib/$(ARCH64)/libcrypt.so.1
327 file path=usr/lib/$(ARCH64)/libdism.so.1
328 file path=usr/lib/$(ARCH64)/libdll.so.1
329 file path=usr/lib/$(ARCH64)/libexecacct.so.1
330 file path=usr/lib/$(ARCH64)/libform.so.1
331 file path=usr/lib/$(ARCH64)/libfstyp.so.1
332 file path=usr/lib/$(ARCH64)/libhotplug.so.1
333 file path=usr/lib/$(ARCH64)/libimap.so.1
334 file path=usr/lib/$(ARCH64)/libike.so.1
335 file path=usr/lib/$(ARCH64)/libipmi.so.1
336 file path=usr/lib/$(ARCH64)/libipp.so.1
337 file path=usr/lib/$(ARCH64)/libipsecutil.so.1
338 file path=usr/lib/$(ARCH64)/libkvml.so.1
339 file path=usr/lib/$(ARCH64)/libl.so.1
340 file path=usr/lib/$(ARCH64)/libldap.so.5
341 file path=usr/lib/$(ARCH64)/liblgrp.so.1
342 file path=usr/lib/$(ARCH64)/liblm.so.1
343 file path=usr/lib/$(ARCH64)/libmail.so.1
344 file path=usr/lib/$(ARCH64)/libmalloc.so.1
345 file path=usr/lib/$(ARCH64)/libmapmalloc.so.1
346 file path=usr/lib/$(ARCH64)/libmenu.so.1
347 file path=usr/lib/$(ARCH64)/libmtmalloc.so.1
348 file path=usr/lib/$(ARCH64)/libnls.so.1
349 file path=usr/lib/$(ARCH64)/libpanel.so.1
350 file path=usr/lib/$(ARCH64)/libpkcs11.so.1
351 file path=usr/lib/$(ARCH64)/libproject.so.1
352 file path=usr/lib/$(ARCH64)/libraidcfg.so.1
353 file path=usr/lib/$(ARCH64)/libreparse.so.1
354 $(i386_ONLY)file path=usr/lib/$(ARCH64)/libsaveargs.so.1
355 #endif /* ! codereview */
356 file path=usr/lib/$(ARCH64)/libsched.so.1
357 file path=usr/lib/$(ARCH64)/libsctp.so.1
358 file path=usr/lib/$(ARCH64)/libshell.so.1
359 file path=usr/lib/$(ARCH64)/libsip.so.1
360 file path=usr/lib/$(ARCH64)/libslapd.so.1
361 file path=usr/lib/$(ARCH64)/libsmbios.so.1
362 file path=usr/lib/$(ARCH64)/libsoftcrypto.so.1
363 file path=usr/lib/$(ARCH64)/libsum.so.1
364 $(sparc_ONLY)file path=usr/lib/$(ARCH64)/libv12n.so.1
365 file path=usr/lib/$(ARCH64)/libvolmgmt.so.1
366 file path=usr/lib/$(ARCH64)/liby.so.1
367 file path=usr/lib/$(ARCH64)/libzoneinfo.so.1
368 file path=usr/lib/$(ARCH64)/nss_ad.so.1
369 file path=usr/lib/$(ARCH64)/nss_ldap.so.1
370 file path=usr/lib/$(ARCH64)/passwdutil.so.1
371 file path=usr/lib/$(ARCH64)/straddr.so.2
372 file path=usr/lib/$(ARCH64)/watchmalloc.so.1
373 file path=usr/lib/0@.so.1
374 file path=usr/lib/cfgadm/$(ARCH64)/ib.so.1
375 file path=usr/lib/cfgadm/$(ARCH64)/pci.so.1
376 $(i386_ONLY)file path=usr/lib/cfgadm/$(ARCH64)/sata.so.1
377 file path=usr/lib/cfgadm/$(ARCH64)/scsi.so.1
378 file path=usr/lib/cfgadm/$(ARCH64)/shp.so.1
379 file path=usr/lib/cfgadm/$(ARCH64)/usb.so.1
380 file path=usr/lib/cfgadm/ib.so.1
381 file path=usr/lib/cfgadm/pci.so.1
382 $(i386_ONLY)file path=usr/lib/cfgadm/sata.so.1
383 file path=usr/lib/cfgadm/scsi.so.1
384 file path=usr/lib/cfgadm/shp.so.1
385 file path=usr/lib/cfgadm/usb.so.1
386 file path=usr/lib/extendedFILE.so.1
387 file path=usr/lib/lib.b mode=0444
388 file path=usr/lib/libadutils.so.1

```

```

389 file path=usr/lib/libast.so.1
390 file path=usr/lib/libbsdmalloc.so.1
391 $(i386_ONLY)file path=usr/lib/libc/libc_hwcap1.so.1 reboot-needed=true
392 $(i386_ONLY)file path=usr/lib/libc/libc_hwcap2.so.1 reboot-needed=true
393 $(i386_ONLY)file path=usr/lib/libc/libc_hwcap3.so.1 reboot-needed=true
394 file path=usr/lib/libcfgadm.so.1
395 file path=usr/lib/libcmd.so.1
396 file path=usr/lib/libcomputil.so.1
397 file path=usr/lib/libcrle.so.1
398 file path=usr/lib/libcrypt.so.1
399 file path=usr/lib/libdismasm.so.1
400 file path=usr/lib/libdl1.so.1
401 file path=usr/lib/libexecacct.so.1
402 file path=usr/lib/libform.so.1
403 file path=usr/lib/libfstyp.so.1
404 file path=usr/lib/libhotplug.so.1
405 file path=usr/lib/libidmap.so.1
406 file path=usr/lib/libike.so.1
407 file path=usr/lib/libinetsvc.so.1
408 file path=usr/lib/libipmi.so.1
409 file path=usr/lib/libipp.so.1
410 file path=usr/lib/libipsecutil.so.1
411 file path=usr/lib/libkvm.so.1
412 file path=usr/lib/libl.so.1
413 file path=usr/lib/libldap.so.5
414 file path=usr/lib/liblgrp.so.1
415 file path=usr/lib/liblm.so.1
416 file path=usr/lib/libmail.so.1
417 file path=usr/lib/libmalloc.so.1
418 file path=usr/lib/libmapmalloc.so.1
419 file path=usr/lib/libmenu.so.1
420 file path=usr/lib/libmtmalloc.so.1
421 file path=usr/lib/libnls.so.1
422 file path=usr/lib/libpanel.so.1
423 file path=usr/lib/libpkcs11.so.1
424 file path=usr/lib/libproject.so.1
425 file path=usr/lib/libraiddcfg.so.1
426 file path=usr/lib/libreparse.so.1
427 file path=usr/lib/libsched.so.1
428 file path=usr/lib/libscrypto.so.1
429 file path=usr/lib/libshell.so.1
430 file path=usr/lib/libsip.so.1
431 file path=usr/lib/libldap.so.1
432 file path=usr/lib/libsmbios.so.1
433 file path=usr/lib/libsoftcrypto.so.1
434 file path=usr/lib/libsum.so.1
435 file path=usr/lib/libsys.so.1
436 $(sparc_ONLY)file path=usr/lib/libv12n.so.1
437 file path=usr/lib/libvolmgt.so.1
438 file path=usr/lib/libwrap.so.1.0
439 file path=usr/lib/liby.so.1
440 file path=usr/lib/libzoneinfo.so.1
441 file path=usr/lib/nss_ad.so.1
442 file path=usr/lib/nss_ldap.so.1
443 file path=usr/lib/passwdutil.so.1
444 file path=usr/lib/python2.6/vendor-packages/solaris/_init__.py
445 file path=usr/lib/python2.6/vendor-packages/solaris/_init__.pyc
446 file path=usr/lib/python2.6/vendor-packages/solaris/misc.so
447 file path=usr/lib/raiddcfg/$(ARCH64)/mpt.so.1
448 file path=usr/lib/raiddcfg/mpt.so.1
449 file path=usr/lib/scsi/$(ARCH64)/libscsi.so.1
450 file path=usr/lib/scsi/$(ARCH64)/libses.so.1
451 file path=usr/lib/scsi/$(ARCH64)/libsmp.so.1
452 file path=usr/lib/scsi/libscsi.so.1
453 file path=usr/lib/scsi/libses.so.1
454 file path=usr/lib/scsi/libsmo.so.1

```

```

455 file path=usr/lib/scsi/plugins/scsi/engines/$(ARCH64)/uscsi.so
456 file path=usr/lib/scsi/plugins/scsi/engines/uscsi.so
457 file path=usr/lib/scsi/plugins/ses/framework/$(ARCH64)/libses.so
458 file path=usr/lib/scsi/plugins/ses/framework/$(ARCH64)/ses2.so
459 file path=usr/lib/scsi/plugins/ses/framework/libses.so
460 file path=usr/lib/scsi/plugins/ses/framework/ses2.so
461 file path=usr/lib/scsi/plugins/smp/engine/$(ARCH64)/usmp.so
462 file path=usr/lib/scsi/plugins/smp/engine/usmp.so
463 file path=usr/lib/scsi/plugins/smp/framework/$(ARCH64)/sas2.so
464 file path=usr/lib/scsi/plugins/smp/framework/sas2.so
465 file path=usr/lib/security/$(ARCH64)/crypt_bsdbf.so.1
466 file path=usr/lib/security/$(ARCH64)/crypt_bsdmd5.so.1
467 file path=usr/lib/security/$(ARCH64)/crypt_sha256.so.1
468 file path=usr/lib/security/$(ARCH64)/crypt_sha512.so.1
469 file path=usr/lib/security/$(ARCH64)/crypt_sunmd5.so.1
470 file path=usr/lib/security/$(ARCH64)/pam_allow.so.1
471 file path=usr/lib/security/$(ARCH64)/pam_authtok_check.so.1
472 file path=usr/lib/security/$(ARCH64)/pam_authtok_get.so.1
473 file path=usr/lib/security/$(ARCH64)/pam_authtok_store.so.1
474 file path=usr/lib/security/$(ARCH64)/pam_deny.so.1
475 file path=usr/lib/security/$(ARCH64)/pam_dhkeys.so.1
476 file path=usr/lib/security/$(ARCH64)/pam_dial_auth.so.1
477 file path=usr/lib/security/$(ARCH64)/pam_ldap.so.1
478 file path=usr/lib/security/$(ARCH64)/pam_list.so.1
479 file path=usr/lib/security/$(ARCH64)/pam_passwd_auth.so.1
480 file path=usr/lib/security/$(ARCH64)/pam_rhosts_auth.so.1
481 file path=usr/lib/security/$(ARCH64)/pam_roles.so.1
482 file path=usr/lib/security/$(ARCH64)/pam_sample.so.1
483 file path=usr/lib/security/$(ARCH64)/pam_tsol_account.so.1
484 file path=usr/lib/security/$(ARCH64)/pam_unix_account.so.1
485 file path=usr/lib/security/$(ARCH64)/pam_unix_auth.so.1
486 file path=usr/lib/security/$(ARCH64)/pam_unix_cred.so.1
487 file path=usr/lib/security/$(ARCH64)/pam_unix_session.so.1
488 file path=usr/lib/security/$(ARCH64)/pkcs11_kernel.so.1
489 file path=usr/lib/security/$(ARCH64)/pkcs11_softtoken.so.1
490 file path=usr/lib/security/$(ARCH64)/pkcs11_tpm.so.1
491 file path=usr/lib/security/audit_binfile.so.1
492 file path=usr/lib/security/audit_remote.so.1
493 file path=usr/lib/security/audit_syslog.so.1
494 file path=usr/lib/security/crypt_bsdbf.so.1
495 file path=usr/lib/security/crypt_bsdmd5.so.1
496 file path=usr/lib/security/crypt_sha256.so.1
497 file path=usr/lib/security/crypt_sha512.so.1
498 file path=usr/lib/security/crypt_sunmd5.so.1
499 file path=usr/lib/security/pam_allow.so.1
500 file path=usr/lib/security/pam_authtok_check.so.1
501 file path=usr/lib/security/pam_authtok_get.so.1
502 file path=usr/lib/security/pam_authtok_store.so.1
503 file path=usr/lib/security/pam_deny.so.1
504 file path=usr/lib/security/pam_dhkeys.so.1
505 file path=usr/lib/security/pam_dial_auth.so.1
506 file path=usr/lib/security/pam_ldap.so.1
507 file path=usr/lib/security/pam_list.so.1
508 file path=usr/lib/security/pam_passwd_auth.so.1
509 file path=usr/lib/security/pam_rhosts_auth.so.1
510 file path=usr/lib/security/pam_roles.so.1
511 file path=usr/lib/security/pam_sample.so.1
512 file path=usr/lib/security/pam_tsol_account.so.1
513 file path=usr/lib/security/pam_unix_account.so.1
514 file path=usr/lib/security/pam_unix_auth.so.1
515 file path=usr/lib/security/pam_unix_cred.so.1
516 file path=usr/lib/security/pam_unix_session.so.1
517 file path=usr/lib/security/pkcs11_kernel.so.1
518 file path=usr/lib/security/pkcs11_softtoken.so.1
519 file path=usr/lib/security/pkcs11_tpm.so.1
520 file path=usr/lib/straddr.so.2

```

```

521 file path=usr/lib/watchmalloc.so.1
522 # XXX: Obsoleted by open i18n?
523 file path=usr/xpg4/lib/$(ARCH64)/libcurses.so.1
524 file path=usr/xpg4/lib/$(ARCH64)/libcurses.so.2
525 file path=usr/xpg4/lib/libcurses.so.1
526 file path=usr/xpg4/lib/libcurses.so.2
527 legacy pkg=SUNWcs1 \
528     desc="core shared libraries for a specific instruction-set architecture" \
529     name="Core Solaris, (Shared Libs)"
530 legacy pkg=SUNWcs1r \
531     desc="core software for a specific instruction-set architecture" \
532     name="Core Solaris Libraries (Root)"
533 license cr_Sun license=cr_Sun
534 license lic_CDDL license=lic_CDDL
535 license lic_OSL license=lic_OSL
536 license lic_OSL_preamble license=lic_OSL_preamble
537 # libwrap is part of tcp wrappers along with tcpd
538 license usr/src/cmd/tcpd/THIRDPARTYLICENSE \
539     license=usr/src/cmd/tcpd/THIRDPARTYLICENSE
540 license usr/src/common/crypto/THIRDPARTYLICENSE.cryptogams \
541     license=usr/src/common/crypto/THIRDPARTYLICENSE.cryptogams
542 license usr/src/common/crypto/aes/amd64/THIRDPARTYLICENSE.gladman \
543     license=usr/src/common/crypto/aes/amd64/THIRDPARTYLICENSE.gladman
544 license usr/src/common/crypto/aes/amd64/THIRDPARTYLICENSE.openssl \
545     license=usr/src/common/crypto/aes/amd64/THIRDPARTYLICENSE.openssl
546 license usr/src/common/crypto/ecc/THIRDPARTYLICENSE \
547     license=usr/src/common/crypto/ecc/THIRDPARTYLICENSE
548 license usr/src/common/crypto/md5/amd64/THIRDPARTYLICENSE \
549     license=usr/src/common/crypto/md5/amd64/THIRDPARTYLICENSE
550 license usr/src/common/mpi/THIRDPARTYLICENSE \
551     license=usr/src/common/mpi/THIRDPARTYLICENSE
552 license usr/src/lib/libbast/THIRDPARTYLICENSE \
553     license=usr/src/lib/libbast/THIRDPARTYLICENSE
554 license usr/src/lib/libbsdmalloc/THIRDPARTYLICENSE \
555     license=usr/src/lib/libbsdmalloc/THIRDPARTYLICENSE
556 license usr/src/lib/libc/THIRDPARTYLICENSE \
557     license=usr/src/lib/libc/THIRDPARTYLICENSE
558 license usr/src/lib/libcmd/THIRDPARTYLICENSE \
559     license=usr/src/lib/libcmd/THIRDPARTYLICENSE
560 license usr/src/lib/libbd11/THIRDPARTYLICENSE \
561     license=usr/src/lib/libbd11/THIRDPARTYLICENSE
562 license usr/src/lib/libinetutil/common/THIRDPARTYLICENSE \
563     license=usr/src/lib/libinetutil/common/THIRDPARTYLICENSE
564 license usr/src/lib/libkmf/THIRDPARTYLICENSE \
565     license=usr/src/lib/libkmf/THIRDPARTYLICENSE
566 license usr/src/lib/libldap5/THIRDPARTYLICENSE \
567     license=usr/src/lib/libldap5/THIRDPARTYLICENSE
568 license usr/src/lib/libmp/common/THIRDPARTYLICENSE \
569     license=usr/src/lib/libmp/common/THIRDPARTYLICENSE
570 license usr/src/lib/libresolv/THIRDPARTYLICENSE \
571     license=usr/src/lib/libresolv/THIRDPARTYLICENSE
572 license usr/src/lib/libresolv2/THIRDPARTYLICENSE \
573     license=usr/src/lib/libresolv2/THIRDPARTYLICENSE
574 license usr/src/lib/libshell/THIRDPARTYLICENSE \
575     license=usr/src/lib/libshell1/THIRDPARTYLICENSE
576 license usr/src/lib/libsum/THIRDPARTYLICENSE \
577     license=usr/src/lib/libsum/THIRDPARTYLICENSE
578 license usr/src/lib/pam_modules/authtok_check/THIRDPARTYLICENSE \
579     license=usr/src/lib/pam_modules/authtok_check/THIRDPARTYLICENSE
580 license usr/src/lib/passwdutil/THIRDPARTYLICENSE \
581     license=usr/src/lib/passwdutil/THIRDPARTYLICENSE
582 license usr/src/lib/pkcs11/pkcs11_tpm/THIRDPARTYLICENSE \
583     license=usr/src/lib/pkcs11/pkcs11_tpm/THIRDPARTYLICENSE
584 license usr/src/uts/common/sys/THIRDPARTYLICENSE.unicode \
585     license=usr/src/uts/common/sys/THIRDPARTYLICENSE.unicode
586 link path=lib/$(ARCH64)/libadm.so target=libadm.so.1

```

```

587 link path=lib/$(ARCH64)/libaio.so target=libaio.so.1
588 link path=lib/$(ARCH64)/libbsm.so target=libbsm.so.1
589 link path=lib/$(ARCH64)/libc.so reboot-needed=true target=libc.so.1
590 link path=lib/$(ARCH64)/libc_db.so target=libc_db.so.1
591 link path=lib/$(ARCH64)/libcontract.so target=libcontract.so.1
592 link path=lib/$(ARCH64)/libcryptoutil.so target=libcryptoutil.so.1
593 link path=lib/$(ARCH64)/libctf.so target=libctf.so.1
594 link path=lib/$(ARCH64)/libcurses.so target=libcurses.so.1
595 link path=lib/$(ARCH64)/libdevice.so target=libdevice.so.1
596 link path=lib/$(ARCH64)/libdevid.so target=libdevid.so.1
597 link path=lib/$(ARCH64)/libdevinfo.so target=libdevinfo.so.1
598 link path=lib/$(ARCH64)/libdl.so target=libdl.so.1
599 link path=lib/$(ARCH64)/libdladm.so target=libdladm.so.1
600 link path=lib/$(ARCH64)/libdlpi.so target=libdlpi.so.1
601 link path=lib/$(ARCH64)/libdoor.so target=libdoor.so.1
602 link path=lib/$(ARCH64)/libefi.so target=libefi.so.1
603 link path=lib/$(ARCH64)/libelf.so target=libelf.so.1
604 $(i386_ONLY)link path=lib/$(ARCH64)/libfdisk.so target=libfdisk.so.1
605 link path=lib/$(ARCH64)/libgen.so target=libgen.so.1
606 link path=lib/$(ARCH64)/libintl.so target=libintl.so.1
607 link path=lib/$(ARCH64)/libkmf.so target=libkmf.so.1
608 link path=lib/$(ARCH64)/libkmfberder.so target=libkmfberder.so.1
609 link path=lib/$(ARCH64)/libkstat.so target=libkstat.so.1
610 link path=lib/$(ARCH64)/libmd.so target=libmd.so.1
611 link path=lib/$(ARCH64)/libmd5.so target=libmd5.so.1
612 link path=lib/$(ARCH64)/libmp.so target=libmp.so.2
613 link path=lib/$(ARCH64)/libnsl.so target=libnsl.so.1
614 link path=lib/$(ARCH64)/libnvpair.so target=libnvpair.so.1
615 link path=lib/$(ARCH64)/libpam.so target=libpam.so.1
616 link path=lib/$(ARCH64)/libposix4.so target=libposix4.so.1
617 link path=lib/$(ARCH64)/libposix4.so.1 target=librt.so.1
618 link path=lib/$(ARCH64)/libproc.so target=libproc.so.1
619 link path=lib/$(ARCH64)/libpthread.so target=libpthread.so.1
620 link path=lib/$(ARCH64)/librcm.so target=librcm.so.1
621 link path=lib/$(ARCH64)/libresolv.so target=libresolv.so.2
622 link path=lib/$(ARCH64)/librestart.so target=librestart.so.1
623 link path=lib/$(ARCH64)/librpcsvc.so target=librpcsvc.so.1
624 link path=lib/$(ARCH64)/librt.so target=librt.so.1
625 link path=lib/$(ARCH64)/librtld_db.so target=librtld_db.so.1
626 link path=lib/$(ARCH64)/libscf.so target=libscf.so.1
627 link path=lib/$(ARCH64)/libsec.so target=libsec.so.1
628 link path=lib/$(ARCH64)/libsecdb.so target=libsecdb.so.1
629 link path=lib/$(ARCH64)/libsendfile.so target=libsendfile.so.1
630 link path=lib/$(ARCH64)/libsocket.so target=libsocket.so.1
631 link path=lib/$(ARCH64)/libsysevent.so target=libsysevent.so.1
632 link path=lib/$(ARCH64)/libtermcap.so target=libtermcap.so.1
633 link path=lib/$(ARCH64)/libtermllib.so target=libtermllib.so.1
634 link path=lib/$(ARCH64)/libtermllib.so.1 target=libcurses.so.1
635 link path=lib/$(ARCH64)/libthread.so target=libthread.so.1
636 link path=lib/$(ARCH64)/libthread_db.so target=libc_db.so.1
637 link path=lib/$(ARCH64)/libthread_db.so.1 target=libc_db.so.1
638 link path=lib/$(ARCH64)/libtsnet.so target=libtsnet.so.1
639 link path=lib/$(ARCH64)/libtsol.so target=libtsol.so.2
640 link path=lib/$(ARCH64)/libumem.so target=libumem.so.1
641 link path=lib/$(ARCH64)/libuuid.so target=libuuid.so.1
642 link path=lib/$(ARCH64)/libutil.so target=libutil.so.1
643 link path=lib/$(ARCH64)/libw.so target=libw.so.1
644 link path=lib/$(ARCH64)/libxnet.so target=libxnet.so.1
645 link path=lib/32 target=.
646 link path=lib/64 target=$(ARCH64)
647 link path=lib/crypto/32 target=.
648 link path=lib/crypto/64 target=$(ARCH64)
649 link path=lib/libadm.so target=libadm.so.1
650 link path=lib/libaio.so target=libaio.so.1
651 link path=lib/libbsm.so target=libbsm.so.1
652 link path=lib/libc.so target=libc.so.1

```

```

653 link path=lib/libc_db.so target=libc_db.so.1
654 link path=lib/libcontract.so target=libcontract.so.1
655 link path=lib/libcryptoutil.so target=./libcryptoutil.so.1
656 link path=lib/libctf.so target=libctf.so.1
657 link path=lib/libcurses.so target=libcurses.so.1
658 link path=lib/libdevice.so target=libdevice.so.1
659 link path=lib/libdevinfo.so target=libdevinfo.so.1
660 link path=lib/libdevinfo.so target=libdevinfo.so.1
661 link path=lib/libdl.so target=libdl.so.1
662 link path=lib/libdladm.so target=libdladm.so.1
663 link path=lib/libdlpi.so target=libdlpi.so.1
664 link path=lib/libdoor.so target=libdoor.so.1
665 link path=lib/libefi.so target=libefi.so.1
666 link path=lib/libelf.so target=libelf.so.1
667 link path=lib/libelfsign.so target=libelfsign.so.1
668 $(i386_ONLY)link path=lib/libfdisk.so target=libfdisk.so.1
669 link path=lib/libgen.so target=libgen.so.1
670 link path=lib/libintl.so target=libintl.so.1
671 link path=lib/libjmp.so target=./libjmp.so.1
672 link path=lib/libkmf.so target=libkmf.so.1
673 link path=lib/libkmfberder.so target=libkmfberder.so.1
674 link path=lib/libkstat.so target=libkstat.so.1
675 link path=lib/libmd.so target=libmd.so.1
676 link path=lib/libmd5.so target=libmd5.so.1
677 link path=lib/libmp.so target=libmp.so.2
678 link path=lib/libnsl.so target=libnsl.so.1
679 link path=lib/libnvpair.so target=libnvpair.so.1
680 link path=lib/libnwam.so target=libnwam.so.1
681 link path=lib/libpam.so target=libpam.so.1
682 link path=lib/libposix4.so target=libposix4.so.1
683 link path=lib/libposix4.so.1 target=librt.so.1
684 link path=lib/libproc.so target=libproc.so.1
685 link path=lib/libpthread.so target=libpthread.so.1
686 link path=lib/librcm.so target=./librcm.so.1
687 link path=lib/libresolv.so target=libresolv.so.2
688 link path=lib/librpccsvc.so target=librpccsvc.so.1
689 link path=lib/librt.so target=librt.so.1
690 link path=lib/librtld_db.so target=librtld_db.so.1
691 link path=lib/libscf.so target=libscf.so.1
692 link path=lib/libsec.so target=libsec.so.1
693 link path=lib/libsecdb.so target=libsecdb.so.1
694 link path=lib/libsendfile.so target=libsendfile.so.1
695 link path=lib/libsocket.so target=libsocket.so.1
696 link path=lib/libsysevent.so target=./libsysevent.so.1
697 link path=lib/libtermcap.so target=libtermcap.so.1
698 link path=lib/libtermlib.so target=libtermlib.so.1
699 link path=lib/libtermlib.so.1 target=libcurses.so.1
700 link path=lib/libthread.so target=libthread.so.1
701 link path=lib/libthread_db.so target=libc_db.so.1
702 link path=lib/libthread_db.so.1 target=libc_db.so.1
703 link path=lib/libtsol.so target=libtsol.so.2
704 link path=lib/libumem.so target=libumem.so.1
705 link path=lib/libuuuid.so target=libuuuid.so.1
706 link path=lib/libw.so target=libw.so.1
707 link path=lib/libxnet.so target=libxnet.so.1
708 link path=lib/secure/32 target=.
709 link path=lib/secure/64 target=$(ARCH64)
710 link path=usr/ccs/lib/$(ARCH64)/libcurses.so \
711   target=../../../../lib/$(ARCH64)/libcurses.so.1
712 link path=usr/ccs/lib/$(ARCH64)/libform.so \
713   target=../../../../lib/$(ARCH64)/libform.so.1
714 link path=usr/ccs/lib/$(ARCH64)/libgen.so \
715   target=../../../../lib/$(ARCH64)/libgen.so.1
716 link path=usr/ccs/lib/$(ARCH64)/libl.so \
717   target=../../../../lib/$(ARCH64)/libl.so.1
718 link path=usr/ccs/lib/$(ARCH64)/libmalloc.so \

```

```

719   target=../../../../lib/$(ARCH64)/libmalloc.so.1
720 link path=usr/ccs/lib/$(ARCH64)/libmenu.so \
721   target=../../../../lib/$(ARCH64)/libmenu.so.1
722 link path=usr/ccs/lib/$(ARCH64)/libpanel.so \
723   target=../../../../lib/$(ARCH64)/libpanel.so.1
724 link path=usr/ccs/lib/$(ARCH64)/libtermcap.so \
725   target=../../../../lib/$(ARCH64)/libtermcap.so.1
726 link path=usr/ccs/lib/$(ARCH64)/libtermlib.so \
727   target=../../../../lib/$(ARCH64)/libcurses.so.1
728 link path=usr/ccs/lib/$(ARCH64)/liby.so \
729   target=../../../../lib/$(ARCH64)/liby.so.1
730 link path=usr/ccs/lib/libcurses.so target=../../../../lib/libcurses.so.1
731 link path=usr/ccs/lib/libform.so target=../../../../lib/libform.so.1
732 link path=usr/ccs/lib/libgen.so target=../../../../lib/libgen.so.1
733 link path=usr/ccs/lib/libl.so target=../../../../lib/libl.so.1
734 link path=usr/ccs/lib/libmalloc.so target=../../../../lib/libmalloc.so.1
735 link path=usr/ccs/lib/libmenu.so target=../../../../lib/libmenu.so.1
736 link path=usr/ccs/lib/libpanel.so target=../../../../lib/libpanel.so.1
737 link path=usr/ccs/lib/libtermcap.so target=../../../../lib/libtermcap.so.1
738 link path=usr/ccs/lib/libtermlib.so target=../../../../lib/libcurses.so.1
739 link path=usr/ccs/lib/liby.so target=../../../../lib/liby.so.1
740 link path=usr/lib/$(ARCH64)/libadm.so \
741   target=../../../../lib/$(ARCH64)/libadm.so.1
742 link path=usr/lib/$(ARCH64)/libadm.so.1 \
743   target=../../../../lib/$(ARCH64)/libadm.so.1
744 link path=usr/lib/$(ARCH64)/libadutils.so target=./libadutils.so.1
745 link path=usr/lib/$(ARCH64)/libao.so \
746   target=../../../../lib/$(ARCH64)/libao.so.1
747 link path=usr/lib/$(ARCH64)/libao.so.1 \
748   target=../../../../lib/$(ARCH64)/libao.so.1
749 link path=usr/lib/$(ARCH64)/libavl.so.1 \
750   target=../../../../lib/$(ARCH64)/libavl.so.1
751 link path=usr/lib/$(ARCH64)/libbsdmalloc.so target=libbsdmalloc.so.1
752 link path=usr/lib/$(ARCH64)/libbsm.so \
753   target=../../../../lib/$(ARCH64)/libbsm.so.1
754 link path=usr/lib/$(ARCH64)/libbsm.so.1 \
755   target=../../../../lib/$(ARCH64)/libbsm.so.1
756 link path=usr/lib/$(ARCH64)/libc.so target=../../../../lib/$(ARCH64)/libc.so.1
757 link path=usr/lib/$(ARCH64)/libc.so.1 target=../../../../lib/$(ARCH64)/libc.so.1
758 link path=usr/lib/$(ARCH64)/libc_db.so \
759   target=../../../../lib/$(ARCH64)/libc_db.so.1
760 link path=usr/lib/$(ARCH64)/libc_db.so.1 \
761   target=../../../../lib/$(ARCH64)/libc_db.so.1
762 link path=usr/lib/$(ARCH64)/libcfgadm.so target=libcfgadm.so.1
763 link path=usr/lib/$(ARCH64)/libcmd.so target=libcmd.so.1
764 link path=usr/lib/$(ARCH64)/libcmutils.so.1 \
765   target=../../../../lib/$(ARCH64)/libcmutils.so.1
766 link path=usr/lib/$(ARCH64)/libcomutil.so target=libcomutil.so.1
767 link path=usr/lib/$(ARCH64)/libcontract.so \
768   target=../../../../lib/$(ARCH64)/libcontract.so.1
769 link path=usr/lib/$(ARCH64)/libcontract.so.1 \
770   target=../../../../lib/$(ARCH64)/libcontract.so.1
771 link path=usr/lib/$(ARCH64)/libcrypt.so target=./libcrypt.so.1
772 link path=usr/lib/$(ARCH64)/libcrypt_d.so target=./libcrypt.so.1
773 link path=usr/lib/$(ARCH64)/libcrypt_i.so target=./libcrypt.so.1
774 link path=usr/lib/$(ARCH64)/libcrypt_i.so target=./libcrypt.so.1
775 link path=usr/lib/$(ARCH64)/libctf.so \
776   target=../../../../lib/$(ARCH64)/libctf.so.1
777 link path=usr/lib/$(ARCH64)/libctf.so.1 \
778 link path=usr/lib/$(ARCH64)/libctf.so.1 \
779   target=../../../../lib/$(ARCH64)/libctf.so.1
780 link path=usr/lib/$(ARCH64)/libcurses.so \
781   target=../../../../lib/$(ARCH64)/libcurses.so.1
782 link path=usr/lib/$(ARCH64)/libcurses.so.1 \
783   target=../../../../lib/$(ARCH64)/libcurses.so.1
784 link path=usr/lib/$(ARCH64)/libdevice.so \

```

```

785 target=../../../../lib/$(ARCH64)/libdevice.so.1
786 link path=usr/lib/$(ARCH64)/libdevice.so.1 \
787 target=../../../../lib/$(ARCH64)/libdevice.so.1
788 link path=usr/lib/$(ARCH64)/libdevid.so \
789 target=../../../../lib/$(ARCH64)/libdevid.so.1
790 link path=usr/lib/$(ARCH64)/libdevid.so.1 \
791 target=../../../../lib/$(ARCH64)/libdevid.so.1
792 link path=usr/lib/$(ARCH64)/libdevinfo.so \
793 target=../../../../lib/$(ARCH64)/libdevinfo.so.1
794 link path=usr/lib/$(ARCH64)/libdevinfo.so.1 \
795 target=../../../../lib/$(ARCH64)/libdevinfo.so.1
796 link path=usr/lib/$(ARCH64)/libdhcutil.so.1 \
797 target=../../../../lib/$(ARCH64)/libdhcutil.so.1
798 link path=usr/lib/$(ARCH64)/libdisasm.so target=libdisasm.so.1
799 link path=usr/lib/$(ARCH64)/libdl.so target=../../../../lib/$(ARCH64)/libdl.so.1
800 link path=usr/lib/$(ARCH64)/libdl.so.1 \
801 target=../../../../lib/$(ARCH64)/libdl.so.1
802 link path=usr/lib/$(ARCH64)/libdipi.so \
803 target=../../../../lib/$(ARCH64)/libdipi.so.1
804 link path=usr/lib/$(ARCH64)/libdipi.so.1 \
805 target=../../../../lib/$(ARCH64)/libdipi.so.1
806 link path=usr/lib/$(ARCH64)/libdoor.so \
807 target=../../../../lib/$(ARCH64)/libdoor.so.1
808 link path=usr/lib/$(ARCH64)/libdoor.so.1 \
809 target=../../../../lib/$(ARCH64)/libdoor.so.1
810 link path=usr/lib/$(ARCH64)/libefi.so \
811 target=../../../../lib/$(ARCH64)/libefi.so.1
812 link path=usr/lib/$(ARCH64)/libefi.so.1 \
813 target=../../../../lib/$(ARCH64)/libefi.so.1
814 link path=usr/lib/$(ARCH64)/libelf.so \
815 target=../../../../lib/$(ARCH64)/libelf.so.1
816 link path=usr/lib/$(ARCH64)/libelf.so.1 \
817 target=../../../../lib/$(ARCH64)/libelf.so.1
818 link path=usr/lib/$(ARCH64)/libexacct.so target=libexacct.so.1
819 $(i386_ONLY)link path=usr/lib/$(ARCH64)/libfdisk.so \
820 target=../../../../lib/$(ARCH64)/libfdisk.so.1
821 $(i386_ONLY)link path=usr/lib/$(ARCH64)/libfdisk.so.1 \
822 target=../../../../lib/$(ARCH64)/libfdisk.so.1
823 link path=usr/lib/$(ARCH64)/libform.so target=libform.so.1
824 link path=usr/lib/$(ARCH64)/libfstyp.so target=../libfstyp.so.1
825 link path=usr/lib/$(ARCH64)/libgen.so \
826 target=../../../../lib/$(ARCH64)/libgen.so.1
827 link path=usr/lib/$(ARCH64)/libgen.so.1 \
828 target=../../../../lib/$(ARCH64)/libgen.so.1
829 link path=usr/lib/$(ARCH64)/libhotplug.so target=libhotplug.so.1
830 link path=usr/lib/$(ARCH64)/libidmap.so target=../libidmap.so.1
831 link path=usr/lib/$(ARCH64)/libinetutil.so.1 \
832 target=../../../../lib/$(ARCH64)/libinetutil.so.1
833 link path=usr/lib/$(ARCH64)/libintl.so \
834 target=../../../../lib/$(ARCH64)/libintl.so.1
835 link path=usr/lib/$(ARCH64)/libintl.so.1 \
836 target=../../../../lib/$(ARCH64)/libintl.so.1
837 link path=usr/lib/$(ARCH64)/libipmi.so target=../libipmi.so.1
838 link path=usr/lib/$(ARCH64)/libipp.so target=libipp.so.1
839 link path=usr/lib/$(ARCH64)/libkstat.so \
840 target=../../../../lib/$(ARCH64)/libkstat.so.1
841 link path=usr/lib/$(ARCH64)/libkstat.so.1 \
842 target=../../../../lib/$(ARCH64)/libkstat.so.1
843 link path=usr/lib/$(ARCH64)/libkvm.so target=libkvm.so.1
844 link path=usr/lib/$(ARCH64)/libl.so target=libl.so.1
845 link path=usr/lib/$(ARCH64)/libldap.so target=libldap.so.5
846 link path=usr/lib/$(ARCH64)/liblldbg.so.4 \
847 target=../../../../lib/$(ARCH64)/liblldbg.so.4
848 link path=usr/lib/$(ARCH64)/liblgrp.so target=liblgrp.so.1
849 link path=usr/lib/$(ARCH64)/liblm.so target=liblm.so.1
850 link path=usr/lib/$(ARCH64)/libmail.so target=libmail.so.1

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851 link path=usr/lib/$(ARCH64)/libmalloc.so target=libmalloc.so.1
852 link path=usr/lib/$(ARCH64)/libmapmalloc.so target=libmapmalloc.so.1
853 link path=usr/lib/$(ARCH64)/libmd.so target=../../../../lib/$(ARCH64)/libmd.so.1
854 link path=usr/lib/$(ARCH64)/libmd.so.1 \
855 target=../../../../lib/$(ARCH64)/libmd.so.1
856 link path=usr/lib/$(ARCH64)/libmd5.so \
857 target=../../../../lib/$(ARCH64)/libmd5.so.1
858 link path=usr/lib/$(ARCH64)/libmd5.so.1 \
859 target=../../../../lib/$(ARCH64)/libmd5.so.1
860 link path=usr/lib/$(ARCH64)/libmenu.so target=libmenu.so.1
861 link path=usr/lib/$(ARCH64)/libmp.so target=../../../../lib/$(ARCH64)/libmp.so.2
862 link path=usr/lib/$(ARCH64)/libmp.so.2 \
863 target=../../../../lib/$(ARCH64)/libmp.so.2
864 link path=usr/lib/$(ARCH64)/libmtmalloc.so target=libmtmalloc.so.1
865 link path=usr/lib/$(ARCH64)/libnls.so target=libnls.so.1
866 link path=usr/lib/$(ARCH64)/libnls.so.1 \
867 target=../../../../lib/$(ARCH64)/libnls1.so.1
868 link path=usr/lib/$(ARCH64)/libnls1.so.1 \
869 target=../../../../lib/$(ARCH64)/libnls1.so.1
870 link path=usr/lib/$(ARCH64)/libnvpair.so \
871 target=../../../../lib/$(ARCH64)/libnvpair.so.1
872 link path=usr/lib/$(ARCH64)/libnvpair.so.1 \
873 target=../../../../lib/$(ARCH64)/libnvpair.so.1
874 link path=usr/lib/$(ARCH64)/libpam.so \
875 target=../../../../lib/$(ARCH64)/libpam.so.1
876 link path=usr/lib/$(ARCH64)/libpam.so.1 \
877 target=../../../../lib/$(ARCH64)/libpam.so.1
878 link path=usr/lib/$(ARCH64)/libpanel.so target=libpanel.so.1
879 link path=usr/lib/$(ARCH64)/libpkcs11.so target=libpkcs11.so.1
880 link path=usr/lib/$(ARCH64)/libposix4.so \
881 target=../../../../lib/$(ARCH64)/libprt.so.1
882 link path=usr/lib/$(ARCH64)/libposix4.so.1 \
883 target=../../../../lib/$(ARCH64)/libprt.so.1
884 link path=usr/lib/$(ARCH64)/libproc.so \
885 target=../../../../lib/$(ARCH64)/libproc.so.1
886 link path=usr/lib/$(ARCH64)/libproc.so.1 \
887 target=../../../../lib/$(ARCH64)/libproc.so.1
888 link path=usr/lib/$(ARCH64)/libproject.so target=libproject.so.1
889 link path=usr/lib/$(ARCH64)/libpthread.so \
890 target=../../../../lib/$(ARCH64)/libpthread.so.1
891 link path=usr/lib/$(ARCH64)/libpthread.so.1 \
892 target=../../../../lib/$(ARCH64)/libpthread.so.1
893 link path=usr/lib/$(ARCH64)/librcm.so \
894 target=../../../../lib/$(ARCH64)/librcm.so.1
895 link path=usr/lib/$(ARCH64)/librcm.so.1 \
896 target=../../../../lib/$(ARCH64)/librcm.so.1
897 link path=usr/lib/$(ARCH64)/libreparse.so target=libreparse.so.1
898 link path=usr/lib/$(ARCH64)/libresolv.so \
899 target=../../../../lib/$(ARCH64)/libresolv.so.2
900 link path=usr/lib/$(ARCH64)/libresolv.so.2 \
901 target=../../../../lib/$(ARCH64)/libresolv.so.2
902 $(i386_ONLY)link path=usr/lib/$(ARCH64)/librestart.so \
903 target=../../../../lib/$(ARCH64)/librestart.so.1
904 link path=usr/lib/$(ARCH64)/librestart.so.1 \
905 target=../../../../lib/$(ARCH64)/librestart.so.1
906 link path=usr/lib/$(ARCH64)/librpcsvc.so \
907 target=../../../../lib/$(ARCH64)/librpcsvc.so.1
908 link path=usr/lib/$(ARCH64)/librpcsvc.so.1 \
909 target=../../../../lib/$(ARCH64)/librpcsvc.so.1
910 link path=usr/lib/$(ARCH64)/librt.so target=../../../../lib/$(ARCH64)/librt.so.1
911 link path=usr/lib/$(ARCH64)/librt.so.1 \
912 target=../../../../lib/$(ARCH64)/librt.so.1
913 link path=usr/lib/$(ARCH64)/librtld.so.1 \
914 target=../../../../lib/$(ARCH64)/librtld.so.1
915 link path=usr/lib/$(ARCH64)/librtld_db.so \
916 target=../../../../lib/$(ARCH64)/librtld_db.so.1

```

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917 link path=usr/lib/${ARCH64}/librtld_db.so.1 \
918     target=../../../../lib/${ARCH64}/librtld_db.so.1
919 link path=usr/lib/${ARCH64}/libscf.so \
920     target=../../../../lib/${ARCH64}/libscf.so.1
921 link path=usr/lib/${ARCH64}/libscf.so.1 \
922     target=../../../../lib/${ARCH64}/libscf.so.1
923 link path=usr/lib/${ARCH64}/libsched.so target=libsched.so.1
924 link path=usr/lib/${ARCH64}/libsctp.so target=./libsctp.so.1
925 link path=usr/lib/${ARCH64}/libsec.so \
926     target=../../../../lib/${ARCH64}/libsec.so.1
927 link path=usr/lib/${ARCH64}/libsec.so.1 \
928     target=../../../../lib/${ARCH64}/libsec.so.1
929 link path=usr/lib/${ARCH64}/libsecdb.so \
930     target=../../../../lib/${ARCH64}/libsecdb.so.1
931 link path=usr/lib/${ARCH64}/libsecdb.so.1 \
932     target=../../../../lib/${ARCH64}/libsecdb.so.1
933 link path=usr/lib/${ARCH64}/libsendfile.so \
934     target=../../../../lib/${ARCH64}/libsendfile.so.1
935 link path=usr/lib/${ARCH64}/libsendfile.so.1 \
936     target=../../../../lib/${ARCH64}/libsendfile.so.1
937 link path=usr/lib/${ARCH64}/libsip.so target=../libsip.so.1
938 link path=usr/lib/${ARCH64}/libsldap.so target=libsldap.so.1
939 link path=usr/lib/${ARCH64}/libsmbios.so target=libsmbios.so.1
940 link path=usr/lib/${ARCH64}/libsocket.so \
941     target=../../../../lib/${ARCH64}/libsocket.so.1
942 link path=usr/lib/${ARCH64}/libsocket.so.1 \
943     target=../../../../lib/${ARCH64}/libsocket.so.1
944 link path=usr/lib/${ARCH64}/libsoftcrypto.so target=../libsoftcrypto.so.1
945 link path=usr/lib/${ARCH64}/libsysevent.so \
946     target=../../../../lib/${ARCH64}/libsysevent.so.1
947 link path=usr/lib/${ARCH64}/libsysevent.so.1 \
948     target=../../../../lib/${ARCH64}/libsysevent.so.1
949 link path=usr/lib/${ARCH64}/libtermcap.so \
950     target=../../../../lib/${ARCH64}/libtermcap.so.1
951 link path=usr/lib/${ARCH64}/libtermcap.so.1 \
952     target=../../../../lib/${ARCH64}/libtermcap.so.1
953 link path=usr/lib/${ARCH64}/libtermlib.so \
954     target=../../../../lib/${ARCH64}/libcurses.so.1
955 link path=usr/lib/${ARCH64}/libtermlib.so.1 \
956     target=../../../../lib/${ARCH64}/libcurses.so.1
957 link path=usr/lib/${ARCH64}/libthread.so \
958     target=../../../../lib/${ARCH64}/libthread.so.1
959 link path=usr/lib/${ARCH64}/libthread.so.1 \
960     target=../../../../lib/${ARCH64}/libthread.so.1
961 link path=usr/lib/${ARCH64}/libthread_db.so \
962     target=../../../../lib/${ARCH64}/libc_db.so.1
963 link path=usr/lib/${ARCH64}/libthread_db.so.1 \
964     target=../../../../lib/${ARCH64}/libc_db.so.1
965 link path=usr/lib/${ARCH64}/libtsnet.so \
966     target=../../../../lib/${ARCH64}/libtsnet.so.1
967 link path=usr/lib/${ARCH64}/libtsnet.so.1 \
968     target=../../../../lib/${ARCH64}/libtsnet.so.1
969 link path=usr/lib/${ARCH64}/libtsol.so \
970     target=../../../../lib/${ARCH64}/libtsol.so.2
971 link path=usr/lib/${ARCH64}/libtsol.so.2 \
972     target=../../../../lib/${ARCH64}/libtsol.so.2
973 link path=usr/lib/${ARCH64}/libumem.so \
974     target=../../../../lib/${ARCH64}/libumem.so.1
975 link path=usr/lib/${ARCH64}/libumem.so.1 \
976     target=../../../../lib/${ARCH64}/libumem.so.1
977 link path=usr/lib/${ARCH64}/libuuid.so \
978     target=../../../../lib/${ARCH64}/libuuid.so.1
979 link path=usr/lib/${ARCH64}/libuuid.so.1 \
980     target=../../../../lib/${ARCH64}/libuuid.so.1
981 $(i386_ONLY)link path=usr/lib/${ARCH64}/libutil.so \
982     target=../../../../lib/${ARCH64}/libutil.so.1

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983 link path=usr/lib/${ARCH64}/libutil.so.1 \
984     target=../../../../lib/${ARCH64}/libutil.so.1
985 $(sparc_ONLY)link path=usr/lib/${ARCH64}/libv12n.so target=../libv12n.so.1
986 link path=usr/lib/${ARCH64}/libvolmgmt.so target=libvolmgmt.so.1
987 link path=usr/lib/${ARCH64}/libw.so target=../../../../lib/${ARCH64}/libw.so.1
988 link path=usr/lib/${ARCH64}/libw.so.1 target=../../../../lib/${ARCH64}/libw.so.1
989 link path=usr/lib/${ARCH64}/libxnet.so \
990     target=../../../../lib/${ARCH64}/libxnet.so.1
991 link path=usr/lib/${ARCH64}/libxnet.so.1 \
992     target=../../../../lib/${ARCH64}/libxnet.so.1
993 link path=usr/lib/${ARCH64}/liby.so target=liby.so.1
994 link path=usr/lib/${ARCH64}/libzoneinfo.so target=../libzoneinfo.so.1
995 link path=usr/lib/${ARCH64}/nss_compat.so.1 \
996     target=../../../../lib/${ARCH64}/nss_compat.so.1
997 link path=usr/lib/${ARCH64}/nss_dns.so.1 \
998     target=../../../../lib/${ARCH64}/nss_dns.so.1
999 link path=usr/lib/${ARCH64}/nss_files.so.1 \
1000    target=../../../../lib/${ARCH64}/nss_files.so.1
1001 link path=usr/lib/${ARCH64}/nss_nis.so.1 \
1002    target=../../../../lib/${ARCH64}/nss_nis.so.1
1003 link path=usr/lib/${ARCH64}/nss_user.so.1 \
1004    target=../../../../lib/${ARCH64}/nss_user.so.1
1005 link path=usr/lib/${ARCH64}/straddr.so target=straddr.so.2
1006 link path=usr/lib/32 target=.
1007 link path=usr/lib/64 target=${ARCH64}
1008 link path=usr/lib/cfgadm/${ARCH64}/ib.so target=../ib.so.1
1009 link path=usr/lib/cfgadm/${ARCH64}/pci.so target=../pci.so.1
1010 $(i386_ONLY)link path=usr/lib/cfgadm/${ARCH64}/sata.so target=../sata.so.1
1011 link path=usr/lib/cfgadm/${ARCH64}/scsi.so target=../scsi.so.1
1012 link path=usr/lib/cfgadm/${ARCH64}/shp.so target=../shp.so.1
1013 link path=usr/lib/cfgadm/${ARCH64}/usb.so target=../usb.so.1
1014 link path=usr/lib/cfgadm/ib.so target=../ib.so.1
1015 link path=usr/lib/cfgadm/pci.so target=../pci.so.1
1016 $(i386_ONLY)link path=usr/lib/cfgadm/sata.so target=../sata.so.1
1017 link path=usr/lib/cfgadm/scsi.so target=../scsi.so.1
1018 link path=usr/lib/cfgadm/shp.so target=../shp.so.1
1019 link path=usr/lib/cfgadm/usb.so target=../usb.so.1
1020 link path=usr/lib/libadm.so target=../../../../lib/libadm.so.1
1021 link path=usr/lib/libadm.so.1 target=../../../../lib/libadm.so.1
1022 link path=usr/lib/libadutil.so target=../libadutil.so.1
1023 link path=usr/lib/libao.so target=../../../../lib/libao.so.1
1024 link path=usr/lib/libao.so.1 target=../../../../lib/libao.so.1
1025 link path=usr/lib/libavl.so.1 target=../../../../lib/libavl.so.1
1026 link path=usr/lib/libbsdmalloc.so target=../libbsdmalloc.so.1
1027 link path=usr/lib/libbsm.so target=../../../../lib/libbsm.so.1
1028 link path=usr/lib/libbsm.so.1 target=../../../../lib/libbsm.so.1
1029 link path=usr/lib/libc.so target=../../../../lib/libc.so.1
1030 link path=usr/lib/libc.so.1 target=../../../../lib/libc.so.1
1031 link path=usr/lib/libc_db.so target=../../../../lib/libc_db.so.1
1032 link path=usr/lib/libc_db.so.1 target=../../../../lib/libc_db.so.1
1033 link path=usr/lib/libcfgadm.so target=../libcfgadm.so.1
1034 link path=usr/lib/libcmd.so target=libcmd.so.1
1035 link path=usr/lib/libcmdutils.so.1 target=../../../../lib/libcmdutils.so.1
1036 link path=usr/lib/libcompututil.so target=libcompututil.so.1
1037 link path=usr/lib/libcontract.so target=../../../../lib/libcontract.so.1
1038 link path=usr/lib/libcontract.so.1 target=../../../../lib/libcontract.so.1
1039 link path=usr/lib/libcrypt.so target=libcrypt.so.1
1040 link path=usr/lib/libcrypt_d.so target=libcrypt.so.1
1041 link path=usr/lib/libcrypt_d.so.1 target=libcrypt.so.1
1042 link path=usr/lib/libcrypt_i.so target=libcrypt.so.1
1043 link path=usr/lib/libcrypt_i.so.1 target=libcrypt.so.1
1044 link path=usr/lib/libctf.so target=../lib/libctf.so.1
1045 link path=usr/lib/libctf.so.1 target=../../../../lib/libctf.so.1
1046 link path=usr/lib/libcurses.so target=../../../../lib/libcurses.so.1
1047 link path=usr/lib/libcurses.so.1 target=../../../../lib/libcurses.so.1
1048 link path=usr/lib/libdevice.so target=../../../../lib/libdevice.so.1

```

```

1049 link path=usr/lib/libdevice.so.1 target=../../lib/libdevice.so.1
1050 link path=usr/lib/libdevid.so target=../../lib/libdevid.so.1
1051 link path=usr/lib/libdevid.so.1 target=../../lib/libdevid.so.1
1052 link path=usr/lib/libdevinfo.so target=../../lib/libdevinfo.so.1
1053 link path=usr/lib/libdevinfo.so.1 target=../../lib/libdevinfo.so.1
1054 link path=usr/lib/libdhcpagent.so.1 target=../../lib/libdhcpagent.so.1
1055 link path=usr/lib/libdhcputil.so.1 target=../../lib/libdhcputil.so.1
1056 link path=usr/lib/libdisasm.so target=../../libdisasm.so.1
1057 link path=usr/lib/libdl.so target=../../lib/libdl.so.1
1058 link path=usr/lib/libdl.so.1 target=../../lib/libdl.so.1
1059 link path=usr/lib/libdlpi.so target=../../lib/libdlpi.so.1
1060 link path=usr/lib/libdlpi.so.1 target=../../lib/libdlpi.so.1
1061 link path=usr/lib/libdoor.so target=../../lib/libdoor.so.1
1062 link path=usr/lib/libdoor.so.1 target=../../lib/libdoor.so.1
1063 link path=usr/lib/libefi.so target=../../lib/libefi.so.1
1064 link path=usr/lib/libefi.so.1 target=../../lib/libefi.so.1
1065 link path=usr/lib/libelf.so target=../../lib/libelf.so.1
1066 link path=usr/lib/libelf.so.1 target=../../lib/libelf.so.1
1067 link path=usr/lib/libexact.so target=../../libexact.so.1
1068 $(i386_ONLY)link path=usr/lib/libfdisk.so target=../../lib/libfdisk.so.1
1069 $(i386_ONLY)link path=usr/lib/libfdisk.so.1 target=../../lib/libfdisk.so.1
1070 link path=usr/lib/libform.so target=../../libform.so.1
1071 link path=usr/lib/libfstyp.so target=../../libfstyp.so.1
1072 link path=usr/lib/libgen.so target=../../lib/libgen.so.1
1073 link path=usr/lib/libgen.so.1 target=../../lib/libgen.so.1
1074 link path=usr/lib/libhotplug.so target=../../libhotplug.so.1
1075 link path=usr/lib/libidmap.so target=../../libidmap.so.1
1076 link path=usr/lib/libinetutil.so.1 target=../../lib/libinetutil.so.1
1077 link path=usr/lib/libintl.so target=../../lib/libintl.so.1
1078 link path=usr/lib/libintl.so.1 target=../../lib/libintl.so.1
1079 link path=usr/lib/libipmi.so target=../../libipmi.so.1
1080 link path=usr/lib/libipp.so target=../../libipp.so.1
1081 link path=usr/lib/libkstat.so target=../../lib/libkstat.so.1
1082 link path=usr/lib/libkstat.so.1 target=../../lib/libkstat.so.1
1083 link path=usr/lib/lib kvm.so target=../../lib kvm.so.1
1084 link path=usr/lib/libl.so target=../../libl.so.1
1085 link path=usr/lib/libldap.so target=libldap.so.5
1086 link path=usr/lib/libl debug.so.4 target=../../lib/libl debug.so.4
1087 link path=usr/lib/libl grp.so target=../../libl grp.so.1
1088 link path=usr/lib/libl m.so target=../../libl m.so.1
1089 link path=usr/lib/libmail.so target=../../libmail.so.1
1090 link path=usr/lib/libmalloc.so target=../../libmalloc.so.1
1091 link path=usr/lib/libmapmalloc.so target=../../libmapmalloc.so.1
1092 link path=usr/lib/libmd.so target=../../lib/libmd.so.1
1093 link path=usr/lib/libmd.so.1 target=../../lib/libmd.so.1
1094 link path=usr/lib/libmd5.so target=../../lib/libmd5.so.1
1095 link path=usr/lib/libmd5.so.1 target=../../lib/libmd5.so.1
1096 link path=usr/lib/libmenu.so target=../../libmenu.so.1
1097 link path=usr/lib/libmp.so target=../../lib/libmp.so.2
1098 link path=usr/lib/libmp.so.1 target=../../lib/libmp.so.1
1099 link path=usr/lib/libmp.so.2 target=../../lib/libmp.so.2
1100 link path=usr/lib/libmtmalloc.so target=../../libmtmalloc.so.1
1101 link path=usr/lib/libnls.so target=../../libnls.so.1
1102 link path=usr/lib/libnsl.so target=../../lib/libnsl.so.1
1103 link path=usr/lib/libnsl.so.1 target=../../lib/libnsl.so.1
1104 link path=usr/lib/libnvpair.so target=../../lib/libnvpair.so.1
1105 link path=usr/lib/libnvpair.so.1 target=../../lib/libnvpair.so.1
1106 link path=usr/lib/libpam.so target=../../lib/libpam.so.1
1107 link path=usr/lib/libpam.so.1 target=../../lib/libpam.so.1
1108 link path=usr/lib/libpanel.so target=../../libpanel.so.1
1109 link path=usr/lib/libp kcs11.so target=../../libp kcs11.so.1
1110 link path=usr/lib/libposix4.so target=../../lib/librt.so.1
1111 link path=usr/lib/libposix4.so.1 target=../../lib/librt.so.1
1112 link path=usr/lib/libproc.so target=../../lib/libproc.so.1
1113 link path=usr/lib/libproc.so.1 target=../../lib/libproc.so.1
1114 link path=usr/lib/libproject.so target=../../libproject.so.1

```

```

1115 link path=usr/lib/libpthread.so target=../../lib/libpthread.so.1
1116 link path=usr/lib/libpthread.so.1 target=../../lib/libpthread.so.1
1117 link path=usr/lib/librcm.so target=../../lib/librcm.so.1
1118 link path=usr/lib/librcm.so.1 target=../../lib/librcm.so.1
1119 link path=usr/lib/libreparse.so target=../../lib/reparse.so.1
1120 link path=usr/lib/libresolv.so target=../../lib/libresolv.so.2
1121 link path=usr/lib/libresolv.so.1 target=../../lib/libresolv.so.1
1122 link path=usr/lib/libresolv.so.2 target=../../lib/libresolv.so.2
1123 link path=usr/lib/librestart.so.1 target=../../lib/librestart.so.1
1124 link path=usr/lib/librpcsvc.so target=../../lib/librpcsvc.so.1
1125 link path=usr/lib/librpcsvc.so.1 target=../../lib/librpcsvc.so.1
1126 link path=usr/lib/librt.so target=../../lib/librt.so.1
1127 link path=usr/lib/librt.so.1 target=../../lib/librt.so.1
1128 link path=usr/lib/librtld.so.1 target=../../lib/librtld.so.1
1129 link path=usr/lib/librtld_db.so target=../../lib/librtld_db.so.1
1130 link path=usr/lib/librtld_db.so.1 target=../../lib/librtld_db.so.1
1131 link path=usr/lib/libscf.so target=../../lib/libscf.so.1
1132 link path=usr/lib/libscf.so.1 target=../../lib/libscf.so.1
1133 link path=usr/lib/libsched.so target=../../libsched.so.1
1134 link path=usr/lib/libscpt.so target=../../libscpt.so.1
1135 link path=usr/lib/libsec.so target=../../lib/libsec.so.1
1136 link path=usr/lib/libsec.so.1 target=../../lib/libsec.so.1
1137 link path=usr/lib/libsecdbo target=../../lib/libsecdbo.1
1138 link path=usr/lib/libsecdbo.1 target=../../lib/libsecdbo.1
1139 link path=usr/lib/libsendfile.so target=../../lib/libsendfile.so.1
1140 link path=usr/lib/libsendfile.so.1 target=../../lib/libsendfile.so.1
1141 link path=usr/lib/libsip.so target=../../lib/libsip.so.1
1142 link path=usr/lib/libldap.so target=libldap.so.1
1143 link path=usr/lib/libsmbios.so target=libsmbios.so.1
1144 link path=usr/lib/libsocket.so target=../../lib/libsocket.so.1
1145 link path=usr/lib/libsocket.so.1 target=../../lib/libsocket.so.1
1146 link path=usr/lib/libsoftcrypto.so target=libsoftcrypto.so.1
1147 link path=usr/lib/libsys.so target=libsys.so.1
1148 link path=usr/lib/libsysevent.so target=libsysevent.so.1
1149 link path=usr/lib/libsysevent.so.1 target=libsysevent.so.1
1150 link path=usr/lib/libtermcap.so target=libtermcap.so.1
1151 link path=usr/lib/libtermcap.so.1 target=libtermcap.so.1
1152 link path=usr/lib/libtermlib.so target=libtermlib.so.1
1153 link path=usr/lib/libtermlib.so.1 target=libtermlib.so.1
1154 link path=usr/lib/libthread.so target=libthread.so.1
1155 link path=usr/lib/libthread.so.1 target=libthread.so.1
1156 link path=usr/lib/libthread_db.so target=libthread_db.so.1
1157 link path=usr/lib/libthread_db.so.1 target=libthread_db.so.1
1158 link path=usr/lib/libtsnet.so target=libtsnet.so.1
1159 link path=usr/lib/libtsnet.so.1 target=libtsnet.so.1
1160 link path=usr/lib/libtsol.so target=libtsol.so.2
1161 link path=usr/lib/libtsol.so.2 target=libtsol.so.2
1162 link path=usr/lib/libumem.so target=libumem.so.1
1163 link path=usr/lib/libumem.so.1 target=libumem.so.1
1164 link path=usr/lib/libuuid.so target=libuuid.so.1
1165 link path=usr/lib/libuuid.so.1 target=libuuid.so.1
1166 link path=usr/lib/libutil.so.1 target=libutil.so.1
1167 $(sparc_ONLY)link path=usr/lib/libv12n.so target=libv12n.so.1
1168 link path=usr/lib/libvolmgmt.so target=libvolmgmt.so.1
1169 link path=usr/lib/libw.so target=libw.so.1
1170 link path=usr/lib/libw.so.1 target=libw.so.1
1171 link path=usr/lib/libwrap.so target=libwrap.so.1
1172 link path=usr/lib/libwrap.so.1 target=libwrap.so.1
1173 link path=usr/lib/libxnet.so target=libxnet.so.1
1174 link path=usr/lib/libxnet.so.1 target=libxnet.so.1
1175 link path=usr/lib/liby.so target=liby.so.1
1176 link path=usr/lib/libzoneinfo.so target=libzoneinfo.so.1
1177 link path=usr/lib/lwp/$ARCH64/libthread.so.1 \
1178 target=../../$ARCH64/libthread.so.1 \
1179 link path=usr/lib/lwp/$ARCH64/libthread_db.so.1 \
1180 target=../../$ARCH64/libthread_db.so.1

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1181 link path=usr/lib/lwp/32 target=.
1182 link path=usr/lib/lwp/64 target=$(ARCH64)
1183 link path=usr/lib/lwp/libthread.so.1 target=../libthread.so.1
1184 link path=usr/lib/lwp/libthread_db.so.1 target=../libthread_db.so.1
1185 link path=usr/lib/nss_compat.so.1 target=../../lib/nss_compat.so.1
1186 link path=usr/lib/nss_dns.so.1 target=../../lib/nss_dns.so.1
1187 link path=usr/lib/nss_files.so.1 target=../../lib/nss_files.so.1
1188 link path=usr/lib/nss_nis.so.1 target=../../lib/nss_nis.so.1
1189 link path=usr/lib/nss_user.so.1 target=../../lib/nss_user.so.1
1190 link path=usr/lib/scsi/$(ARCH64)/libscsi.so target=../libscsi.so.1
1191 link path=usr/lib/scsi/$(ARCH64)/libses.so target=../libses.so.1
1192 link path=usr/lib/scsi/$(ARCH64)/libsmp.so target=../libsmp.so.1
1193 link path=usr/lib/scsi/libscsi.so target=../libscsi.so.1
1194 link path=usr/lib/scsi/libses.so target=../libses.so.1
1195 link path=usr/lib/scsi/libsmp.so target=../libsmp.so.1
1196 link path=usr/lib/security/$(ARCH64)/crypt_bsdbf.so target=../crypt_bsdbf.so.1
1197 link path=usr/lib/security/$(ARCH64)/crypt_bsdmd5.so \
1198     target=../crypt_bsdmd5.so.1
1199 link path=usr/lib/security/$(ARCH64)/crypt_sha256.so \
1200     target=../crypt_sha256.so.1
1201 link path=usr/lib/security/$(ARCH64)/crypt_sha512.so \
1202     target=../crypt_sha512.so.1
1203 link path=usr/lib/security/$(ARCH64)/crypt_sunmd5.so \
1204     target=../crypt_sunmd5.so.1
1205 link path=usr/lib/security/$(ARCH64)/pam_allow.so target=../pam_allow.so.1
1206 link path=usr/lib/security/$(ARCH64)/pam_authtok_check.so \
1207     target=../pam_authtok_check.so.1
1208 link path=usr/lib/security/$(ARCH64)/pam_authtok_get.so \
1209     target=../pam_authtok_get.so.1
1210 link path=usr/lib/security/$(ARCH64)/pam_authtok_store.so \
1211     target=../pam_authtok_store.so.1
1212 link path=usr/lib/security/$(ARCH64)/pam_deny.so target=../pam_deny.so.1
1213 link path=usr/lib/security/$(ARCH64)/pam_dhkeys.so target=../pam_dhkeys.so.1
1214 link path=usr/lib/security/$(ARCH64)/pam_dial_auth.so \
1215     target=../pam_dial_auth.so.1
1216 link path=usr/lib/security/$(ARCH64)/pam_ldap.so target=../pam_ldap.so.1
1217 link path=usr/lib/security/$(ARCH64)/pam_list.so target=../pam_list.so.1
1218 link path=usr/lib/security/$(ARCH64)/pam_passwd_auth.so \
1219     target=../pam_passwd_auth.so.1
1220 link path=usr/lib/security/$(ARCH64)/pam_rhosts_auth.so \
1221     target=../pam_rhosts_auth.so.1
1222 link path=usr/lib/security/$(ARCH64)/pam_roles.so target=../pam_roles.so.1
1223 link path=usr/lib/security/$(ARCH64)/pam_sample.so target=../pam_sample.so.1
1224 link path=usr/lib/security/$(ARCH64)/pam_tsol_account.so \
1225     target=../pam_tsol_account.so.1
1226 link path=usr/lib/security/$(ARCH64)/pam_unix_account.so \
1227     target=../pam_unix_account.so.1
1228 link path=usr/lib/security/$(ARCH64)/pam_unix_auth.so \
1229     target=../pam_unix_auth.so.1
1230 link path=usr/lib/security/$(ARCH64)/pam_unix_cred.so \
1231     target=../pam_unix_cred.so.1
1232 link path=usr/lib/security/$(ARCH64)/pam_unix_session.so \
1233     target=../pam_unix_session.so.1
1234 link path=usr/lib/security/$(ARCH64)/pkcs11_kernel.so \
1235     target=../pkcs11_kernel.so.1
1236 link path=usr/lib/security/$(ARCH64)/pkcs11_softtoken.so \
1237     target=../pkcs11_softtoken.so.1
1238 link path=usr/lib/security/$(ARCH64)/pkcs11_tpm.so target=../pkcs11_tpm.so.1
1239 link path=usr/lib/security/64 target=$(ARCH64)
1240 link path=usr/lib/security/audit_binfile.so target=../audit_binfile.so.1
1241 link path=usr/lib/security/audit_remote.so target=../audit_remote.so.1
1242 link path=usr/lib/security/audit_syslog.so target=../audit_syslog.so.1
1243 link path=usr/lib/security/crypt_bsdbf.so target=../crypt_bsdbf.so.1
1244 link path=usr/lib/security/crypt_bsdmd5.so target=../crypt_bsdmd5.so.1
1245 link path=usr/lib/security/crypt_sha256.so target=../crypt_sha256.so.1
1246 link path=usr/lib/security/crypt_sha512.so target=../crypt_sha512.so.1

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1247 link path=usr/lib/security/crypt_sunmd5.so target=../crypt_sunmd5.so.1
1248 link path=usr/lib/security/pam_allow.so target=../pam_allow.so.1
1249 link path=usr/lib/security/pam_authtok_check.so \
1250     target=../pam_authtok_check.so.1
1251 link path=usr/lib/security/pam_authtok_get.so target=../pam_authtok_get.so.1
1252 link path=usr/lib/security/pam_authtok_store.so \
1253     target=../pam_authtok_store.so.1
1254 link path=usr/lib/security/pam_deny.so target=../pam_deny.so.1
1255 link path=usr/lib/security/pam_dhkeys.so target=../pam_dhkeys.so.1
1256 link path=usr/lib/security/pam_dial_auth.so target=../pam_dial_auth.so.1
1257 link path=usr/lib/security/pam_ldap.so target=../pam_ldap.so.1
1258 link path=usr/lib/security/pam_list.so target=../pam_list.so.1
1259 link path=usr/lib/security/pam_passwd_auth.so target=../pam_passwd_auth.so.1
1260 link path=usr/lib/security/pam_rhosts_auth.so target=../pam_rhosts_auth.so.1
1261 link path=usr/lib/security/pam_roles.so target=../pam_roles.so.1
1262 link path=usr/lib/security/pam_sample.so target=../pam_sample.so.1
1263 link path=usr/lib/security/pam_tsol_account.so target=../pam_tsol_account.so.1
1264 link path=usr/lib/security/pam_unix_account.so target=../pam_unix_account.so.1
1265 link path=usr/lib/security/pam_unix_auth.so target=../pam_unix_auth.so.1
1266 link path=usr/lib/security/pam_unix_cred.so target=../pam_unix_cred.so.1
1267 link path=usr/lib/security/pam_unix_session.so target=../pam_unix_session.so.1
1268 link path=usr/lib/security/pkcs11_kernel.so target=../pkcs11_kernel.so.1
1269 link path=usr/lib/security/pkcs11_softtoken.so target=../pkcs11_softtoken.so.1
1270 link path=usr/lib/security/pkcs11_tpm.so target=../pkcs11_tpm.so.1
1271 link path=usr/lib/straddr.so target=../straddr.so.2
1272 link path=usr/xpg4/lib/$(ARCH64)/libcurses.so target=libcurses.so.2
1273 link path=usr/xpg4/lib/64 target=$(ARCH64)
1274 link path=usr/xpg4/lib/libcurses.so target=../libcurses.so.2
1275 #
1276 # libses.so needs to dlopen(3C) plugins from usr/lib/scsi/plugins/ses/vendor/,
1277 # a dependency which cannot be automatically derived
1278 #
1279 depend fmri=system/library/storage/scsi-plugins type=require

```