```
*********************************************************
    27616 Sun Feb 24 21:11:27 2013
new/exception_lists/packaging
saveargs: Implement as libsaveargs
*********************************************************
    1 #
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    3 #
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   18 #
   19 # CDDL HEADER END
   20 #

   22 #
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   26 #

   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/libkcfd.so
   54 lib/llib-lelfsign
   55 lib/llib-lelfsign.ln
   56 lib/llib-lkcfd
   57 lib/llib-lkcfd.ln
   58 usr/include/libelfsign.h
   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/libdlflow_impl.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 #
  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 # libipsecutil.  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
135 usr/lib/amd64/libike.so                  i386
136 usr/lib/sparcv9/libike.so                sparc
137 usr/lib/libipsecutil.so
138 usr/lib/amd64/libipsecutil.so            i386
139 usr/lib/sparcv9/libipsecutil.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/libnwam_priv.h
158 usr/include/protocols/ripngd.h
159 usr/include/s_string.h
160 usr/include/sys/logindmux_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/sha1_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 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
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-lraidcfg
215 usr/lib/llib-lraidcfg.ln
216 usr/lib/amd64/llib-lraidcfg.ln       i386
217 usr/lib/sparcv9/llib-lraidcfg.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 dhcpagent, dhcpinfo, 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/dhcpagent_ipc.h
246 usr/include/dhcpagent_util.h
247 usr/include/dhcpmsg.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
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/lib/llib-linetutil
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
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                        sparc
363 usr/platform/sun4u/include/sys/fcode.h                          sparc
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 #
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                                     i386
 405 lib/sparcv9/llib-lrestart.ln                                   sparc
 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                                  sparc
 411 lib/svc/manifest/platform/sun4u                                i386
 412 lib/svc/manifest/platform/sun4v                                i386
 413 var/svc/manifest/platform/sun4u                                i386
 414 var/svc/manifest/platform/sun4v                                i386
 415 etc/svc/profile/platform_sun4v.xml                             i386
 416 etc/svc/profile/platform_SUNW,SPARC-Enterprise.xml             i386
 417 etc/svc/profile/platform_SUNW,Sun-Fire-15000.xml              i386
 418 etc/svc/profile/platform_SUNW,Sun-Fire-880.xml                i386
 419 etc/svc/profile/platform_SUNW,Sun-Fire-V890.xml               i386
 420 etc/svc/profile/platform_SUNW,Sun-Fire.xml                    i386
 421 etc/svc/profile/platform_SUNW,Ultra-Enterprise-10000.xml      i386
 422 etc/svc/profile/platform_SUNW,UltraSPARC-IIe-NetraCT-40.xml   i386
 423 etc/svc/profile/platform_SUNW,UltraSPARC-IIe-NetraCT-60.xml   i386
 424 etc/svc/profile/platform_SUNW,UltraSPARC-IIi-Netract.xml      i386
 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 #
 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 #
 521 usr/platform/sun4u/lib/llib-lprtdiag                               sparc
 522 usr/platform/sun4u/lib/llib-lprtdiag.ln                            sparc
 523 usr/platform/sun4v/lib/llib-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/llib-lpcp.ln                                    sparc
538 usr/platform/SUNW,Netra-CP3060/lib/llib-lpcp.ln                        sparc
539 usr/platform/SUNW,Netra-CP3260/lib/llib-lpcp.ln                        sparc
540 usr/platform/SUNW,Netra-T5220/lib/llib-lpcp.ln                         sparc
541 usr/platform/SUNW,Netra-T5440/lib/llib-lpcp.ln                         sparc
542 usr/platform/SUNW,SPARC-Enterprise-T5120/lib/llib-lpcp.ln              sparc
543 usr/platform/SUNW,Sun-Blade-T6300/lib/llib-lpcp.ln                     sparc
544 usr/platform/SUNW,Sun-Blade-T6320/lib/llib-lpcp.ln                     sparc
545 usr/platform/SUNW,Sun-Fire-T200/lib/llib-lpcp.ln                       sparc
546 usr/platform/SUNW,T5140/lib/llib-lpcp.ln                               sparc
547 usr/platform/SUNW,USBRDT-5240/lib/llib-lpcp.ln                         sparc
548 #
549 # ZFS internal tools and lint libraries
550 #
551 usr/lib/llib-lzfs_jni
552 usr/lib/llib-lzfs_jni.ln
553 usr/lib/amd64/llib-lzfs_jni.ln              i386
554 usr/lib/sparcv9/llib-lzfs_jni.ln            sparc
555 usr/lib/llib-lzpool
556 usr/lib/llib-lzpool.ln                      i386
557 usr/lib/amd64/llib-lzpool.ln                i386
558 usr/lib/sparcv9/llib-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
587 usr/lib/llib-ltsnet
588 usr/lib/llib-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/llib-last
601 usr/lib/llib-last.ln
602 usr/lib/amd64/llib-last.ln              i386
603 usr/lib/sparcv9/llib-last.ln            sparc
604 # libcmd
605 usr/lib/llib-lcmd
606 usr/lib/llib-lcmd.ln
607 usr/lib/amd64/llib-lcmd.ln              i386
608 usr/lib/sparcv9/llib-lcmd.ln            sparc
609 # libdll
610 usr/lib/libdll.so
611 usr/lib/amd64/libdll.so                 i386
612 usr/lib/sparcv9/libdll.so               sparc
613 usr/lib/llib-ldll
614 usr/lib/llib-ldll.ln
615 usr/lib/amd64/llib-ldll.ln              i386
616 usr/lib/sparcv9/llib-ldll.ln            sparc
617 # libpp (a helper library needed by AST's msgcc)
618 usr/lib/libpp.so
619 usr/lib/llib-lpp
620 usr/lib/llib-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/llib-lshell
627 usr/lib/llib-lshell.ln
628 usr/lib/amd64/llib-lshell.ln            i386
629 usr/lib/sparcv9/llib-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/llib-lsum
635 usr/lib/llib-lsum.ln
636 usr/lib/amd64/llib-lsum.ln              i386
637 usr/lib/sparcv9/llib-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/idm
652 usr/include/sys/iscsit/chap.h
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
661 usr/lib/amd64/libshare.so                    i386
662 usr/lib/sparcv9/libshare.so                  sparc
663 usr/lib/fs/autofs/libshare_autofs.so
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/nfs/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 libldom, 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/llib-lpri                sparc
686 usr/lib/llib-lpri.ln             sparc
687 usr/lib/sparcv9/libpri.so        sparc
688 usr/lib/sparcv9/llib-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/llib-lds                         sparc
699 usr/lib/llib-lds.ln                      sparc
700 usr/lib/sparcv9/llib-lds.ln              sparc
701 usr/lib/libdscfg.so
702 usr/lib/llib-ldscfg.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/llib-lsqlite.ln
716 usr/lib/smbsrv/libsqlite.so
717 #
718 # Private/Internal kiconv header files. Do not ship.
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_emea1.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/llib-lreparse_smb
768 usr/lib/reparse/llib-lreparse_smb.ln
769 usr/lib/smbsrv/llib-lmlrpc
770 usr/lib/smbsrv/llib-lmlrpc.ln
771 usr/lib/smbsrv/llib-lmlsvc
772 usr/lib/smbsrv/llib-lmlsvc.ln
773 usr/lib/smbsrv/llib-lsmb
774 usr/lib/smbsrv/llib-lsmb.ln
775 usr/lib/smbsrv/llib-lsmbns
776 usr/lib/smbsrv/llib-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
785 usr/lib/reparse/amd64/libreparse_smb.so.1     i386
786 usr/lib/reparse/amd64/llib-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/llib-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/llib-lvscan
803 usr/lib/vscan/llib-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                                                i386
810 #
811 # Private sdcard framework headers
812 #
813 usr/include/sys/sdcard
814 #
815 # libsmbfs is private
816 #
817 usr/include/netsmb
818 usr/lib/libsmbfs.so
819 usr/lib/amd64/libsmbfs.so                    i386
820 usr/lib/sparcv9/libsmbfs.so                  sparc
821 usr/lib/llib-lsmbfs
822 usr/lib/llib-lsmbfs.ln
823 usr/lib/amd64/llib-lsmbfs.ln                 i386
824 usr/lib/sparcv9/llib-lsmbfs.ln               sparc
825 #
826 # demo & test program for smbfs (private) ACL support
827 #
828 usr/lib/fs/smbfs/chacl
829 usr/lib/fs/smbfs/lsacl
830 usr/lib/fs/smbfs/testnp
831 #
832 # FC related files
833 kernel/kmdb/fcip                    i386
834 kernel/kmdb/amd64/fcip              i386
835 kernel/kmdb/sparcv9/fcip            sparc
836 kernel/kmdb/fcp                     i386
837 kernel/kmdb/amd64/fcp               i386
838 kernel/kmdb/sparcv9/fcp             sparc
839 kernel/kmdb/fctl                    i386
840 kernel/kmdb/amd64/fctl              i386
841 kernel/kmdb/sparcv9/fctl            sparc
842 kernel/kmdb/qlc                     i386
843 kernel/kmdb/amd64/qlc               i386
844 kernel/kmdb/sparcv9/qlc             sparc
845 lib/llib-la5k                       sparc
846 lib/llib-la5k.ln                    sparc
847 lib/sparcv9/llib-la5k.ln            sparc
848 lib/llib-lg_fc                      sparc
849 lib/llib-lg_fc.ln                   sparc
850 lib/sparcv9/llib-lg_fc.ln           sparc
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/llib-lHBAAPI
863 usr/lib/llib-lHBAAPI.ln
864 usr/lib/amd64/llib-lHBAAPI.ln    i386
865 usr/lib/sparcv9/llib-lHBAAPI.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/llib-lnsctl.ln
881 usr/lib/llib-lrdc.ln
882 usr/lib/llib-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/llib-lstmfproxy
902 usr/lib/llib-lstmfproxy.ln
903 usr/lib/amd64/llib-lstmfproxy.ln         i386
904 usr/lib/sparcv9/llib-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 #
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/libstandsaveargs.so        i386
983 usr/lib/amd64/llib-lsaveargs.ln          i386
984 #endif /* ! codereview */
```

```
**********************************************************
    1038 Sun Feb 24 21:11:27 2013
new/usr/src/cmd/mdb/intel/amd64/Makefile.kmdb
saveargs: Implement as libsaveargs
**********************************************************
   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.
   7 #
   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 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
```

```
**********************************************************
    2459 Sun Feb 24 21:11:28 2013
new/usr/src/cmd/mdb/intel/amd64/kmdb/Makefile
saveargs: Implement as libsaveargs
**********************************************************
   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.
   7 #
   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
  59 include ../../../../Makefile.cmd.64

  61 include ../../Makefile.amd64
```

```
  62 include ../../../Makefile.kmdb

  64 STANDLIBS += $(ROOT)/usr/lib/amd64/libstanddisasm.so
  65 STANDLIBS += $(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) $(KMDBOBJS:%.o=%.ln) $(PROMOBJS:%.o=%.ln)

  83 lintkmdb: $(KMDBOBJS:%.o=%.ln)
  84         $(LINT) $(LINTFLAGS) $(KMDBOBJS:%.o=%.ln)

  86 lintprom: $(PROMOBJS:%.o=%.ln)
  87         $(LINT) $(LINTFLAGS) $(PROMOBJS:%.o=%.ln)

  89 lintkctl: $(KCTLOBJS:%.o=%.ln)
  90         $(LINT) $(ALLLINTFLAGS) $(KCTLOBJS:%.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)
```

```
**********************************************************
   1369 Sun Feb 24 21:11:28 2013
new/usr/src/cmd/mdb/intel/amd64/mdb/Makefile
saveargs: Implement as libsaveargs
saveargs: let disasm do the lifting
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves maybe out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
**********************************************************
   1 #
   2 # CDDL HEADER START
   3 #
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  19 # CDDL HEADER END
  20 #
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  24 #

  26 SRCS =  kvm_amd64dep.c \
  27         kvm_isadep.c \
  28         mdb_amd64util.c \
  29         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
```

```
  50 CPPFLAGS += -I../../mdb
  51 LDLIBS += -lsaveargs
  59 CPPFLAGS += -I$(SRC)/common/saveargs

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

```
*********************************************************
    13786 Sun Feb 24 21:11:28 2013
new/usr/src/lib/Makefile
saveargs: Implement as libsaveargs
*********************************************************
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   20 #

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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              \
   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                   .WAIT   \
   66         libnsl                  \
   67         libsecdb                .WAIT   \
   68         librpcsvc                       \
   69         libsocket               .WAIT   \
   70         libsctp                 \
   71         libsip                  \
   72         libcommputil            \
   73         libresolv                       \
   74         libresolv2              .WAIT   \
   75         libw                    .WAIT   \
   76         libintl                 .WAIT   \
   77         ../cmd/sgs/librtld_db   \
   78         libaio                  \
   79         libast                  \
   80         libdll                  \
   81         libcmd                  \
   82         libshell                \
   83         libsum                  \
   84         librt                   \
   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      .WAIT   \
   97         libslp          \
   98         libbsdmalloc    \
   99         libdoor         \
  100         libdevinfo      \
  101         libdladm        \
  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         liblm           \
  119         libmalloc       \
  120         libmapmalloc    \
  121         libmtmalloc     \
  122         libnls          \
  123         libnwam         \
  124         libsmbios       \
  125         libtecla        \
  126         libumem         \
  127         libnvpair       .WAIT   \
```

```
128         libexacct        \
129         libsasl          \
130         libldap5         \
131         libsldap       .WAIT   \
132         libbsm           \
133         libsys           \
134         libsysevent      \
135         libnisdb         \
136         libpool          \
137         libpp            \
138         libproc          \
139         libproject       \
140         libsendfile      \
141         nametoaddr       \
142         ncad_addr        \
143         hbaapi           \
144         smhba            \
145         sun_fc           \
146         sun_sas          \
147         gss_mechs/mech_krb5      .WAIT   \
148         libkrb5 .WAIT    \
149         krb5     .WAIT   \
150         libsmbfs         \
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         libvolmgt        \
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         libsched         \
```

```
194         libelfsign       \
195         pkcs11         .WAIT   \
196         libpctx        .WAIT   \
197         libcpc           \
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         libraidcfg     .WAIT   \
217         librcm         .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         libfsmgt         \
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         libadutils       \
253         libipmi          \
254         libexacct/demo   \
255         libvrrpadm       \
256         libvscan         \
257         libgrubmgmt      \
258         smbsrv           \
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
274          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          libnsl           \
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          libsldap         \
351          libslp           \
352          libsmbfs         \
353          libsmedia        \
354          libsum           \
355          libtsol          \
356          libuutil         \
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             libdladm        \
400             libdll          \
401             libdlpi         \
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             libnsl          \
433             libnwam         \
434             libpam          \
435             libpctx         \
436             libpicl         \
437             libpicltree     \
438             libpool         \
439             libpp           \
440             libproc         \
441             libraidcfg      \
442             librcm          \
443             librdc          \
444             libscf          \
445             libsip          \
446             libsmbios       \
447             librestart      \
448             librpcsvc       \
449             librsm          \
450             librstp         \
451             libsasl         \
452             libsec          \
453             libshell        \
454             libslp          \
455             libsmedia       \
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             libuutil        \
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             libsmbfs        \
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 libnsl libsecdb
570 gss_mechs/mech_krb5:     libgss libnsl libsocket libresolv pkcs11
571 libadt_jni:     libbsm
572 libast:         libsocket
573 libadutils:     libldap5 libresolv libsocket libnsl
574 nsswitch:       libadutils libidmap
575 libbe:          libzfs
576 libbsm:         libtsol
577 libcmd:         libsum libast libsocket libnsl
578 libcmdutils:    libavl
579 libcontract:    libnvpair
580 libdevid:       libdevinfo
581 libdevinfo:     libnvpair libsec
582 libdhcpagent:   libsocket libdhcputil libuuid libdlpi libcontract
583 libdhcpsvc:     libinetutil
584 libdhcputil:    libnsl libgen libinetutil libdlpi
585 libdladm:       libdevinfo libinetutil libsocket libscf librcm libnvpair \
586                 libexacct libnsl libkstat libcurses
587 libdll:         libast
```

```
588 libdlpi:        libinetutil libdladm
589 libds:          libsysevent
590 libdscfg:       libnsctl libunistat libsocket libnsl
591 libdtrace:      libproc libgen libctf
592 libdtrace_jni:  libuutil libdtrace
593 libefi:         libuuid
594 libfstyp:       libnvpair
595 libelfsign:     libcryptoutil libkmf
596 libidmap:       libadutils libldap5 libavl libsldap libuutil
597 libipadm:       libnsl libinetutil libsocket libdlpi libnvpair libdhcpagent \
598                 libdladm libsecdb
599 libiscsit:      libc libnvpair libstmf libuuid libnsl
600 libkmf:         libcryptoutil pkcs11
601 libnsl:         libmd5
602 libmapid:       libresolv
603 librdc:         libsocket libnsl libnsctl libunistat libdscfg
604 libuuid:        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:       libnsl
612 libsasl:        libgss libsocket pkcs11 libmd
613 sasl_plugins:   pkcs11 libgss libsocket libsasl
614 libsctp:        libsocket
615 libshell:       libast libcmd libdll libsocket libsecdb
616 libsip:         libmd5
617 libsmbfs:       libcmdutils libsocket libnsl libkrb5
618 libsocket:      libnsl
619 libstmfproxy:   libstmf libsocket libnsl libpthread
620 libsum:         libast
621 libsysevent:    libsecdb
622 libldap5:       libsasl libsocket libnsl libmd
623 libsldap:       libldap5 libtsol libnsl libc libscf libresolv
624 libpool:        libnvpair libexacct
625 libpp:          libast
626 libzonecfg:     libc libsocket libnsl libuuid libnvpair libsysevent libsec \
627                 libbrand libpool libscf
628 libproc:        ../cmd/sgs/librtld_db ../cmd/sgs/libelf libctf libsaveargs
626 libproc:        ../cmd/sgs/librtld_db ../cmd/sgs/libelf libctf
629 libproject:     libpool libproc libsecdb
630 libtermcap:     libcurses
631 libtsnet:       libnsl libtsol libsecdb
632 libwrap:        libnsl libsocket
633 libwanboot:     libnvpair libresolv libnsl libsocket libdevinfo libinetutil \
634                 libdhcputil
635 libwanbootutil: libnsl
636 pam_modules:    libproject passwdutil smbsrv
637 libscf:         libuutil libmd libgen libsmbios libnsl
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 libsmbfs
655 libexacct/demo: libexacct libproject libsocket libnsl
656 libtsalarm:     libpcp
657 smbsrv:         libsocket libnsl libmd libxnet libpthread librt \
658                 libshare libidmap pkcs11 libsqlite libcryptoutil \
659                 libreparse libcmdutils
660 libv12n:        libds libuuid
661 libvrrpadm:     libsocket libdladm 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 libgrubmgmt:    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:
```

```
*******************************************************
    2389 Sun Feb 24 21:11:29 2013
new/usr/src/lib/libdisasm/common/libdisasm.h
saveargs: let disasm do the lifting
*******************************************************
   1  /*
   2   * CDDL HEADER START
   3   *
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   5   * Common Development and Distribution License (the "License").
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  18   *
  19   * CDDL HEADER END
  20   */

  22  /*
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  24   * Use is subject to license terms.
  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 diassembler 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 *);
  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_instrlen(dis_handle_t *);
  68  extern int dis_instrlen(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 */
```

```
**********************************************************
    1507 Sun Feb 24 21:11:29 2013
new/usr/src/lib/libdisasm/common/mapfile-vers
saveargs: let disasm do the lifting
**********************************************************
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  18 #
  19 # CDDL HEADER END
  20 #
  21 #
  22 # Copyright (c) 2006, 2010, Oracle and/or its affiliates. All rights reserved.
  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 };
```

****
**   5644 Sun Feb 24 21:11:30 2013**
new/usr/src/lib/libdisasm/i386/dis_i386.c
saveargs: let disasm do the lifting
****
```
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  19  * CDDL HEADER END
  20  */

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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 Sun Feb 24 21:11:30 2013
new/usr/src/lib/libdisasm/sparc/dis_sparc.c
saveargs: Implement as libsaveargs
saveargs: let disasm do the lifting
**********************************************************
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  20  */

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  27 /*
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  30  */


  33 #pragma ident   "%Z%%M% %I%     %E% SMI"

  32 /*
  33  * The sparc disassembler is mostly straightforward, each instruction is
  34  * represented by an inst_t structure.  The inst_t definitions are organized
  35  * into tables.  The tables are correspond to the opcode maps documented in the
  36  * various sparc architecture manuals.  Each table defines the bit range of the
  37  * instruction whose value act as an index into the array of instructions.  A
  38  * table can also refer to another table if needed.  Each table also contains
  39  * a function pointer of type format_fcn that knows how to output the
  40  * instructions in the table, as well as handle any synthetic instructions
  41  *
  42  * Unfortunately, the changes from sparcv8 -> sparcv9 not only include new
  43  * instructions, they sometimes renamed or just reused the same instruction to
  44  * do different operations (i.e. the sparcv8 coprocessor instructions).  To
  45  * accommodate this, each table can define an overlay table.  The overlay table
  46  * is a list of (table index, architecture, new instruction definition) values.
  47  *
  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 dissassembly mode (I.e. DIS_SPARC_V8, DIS_SPARC_V9, etc.).
  73  *
  74  * If the dissassembled 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  */

  87 #include <libdisasm.h>
  88 #include <stdlib.h>
  89 #include <stdio.h>
  90 #include <sys/types.h>
  91 #include <sys/byteorder.h>
  92 #include <string.h>

  94 #include "libdisasm_impl.h"
  95 #include "dis_sparc.h"

  97 static const inst_t *dis_get_overlay(dis_handle_t *, const table_t *,
  98     uint32_t);
  99 static uint32_t dis_get_bits(uint32_t, int, int);

 101 #if !defined(DIS_STANDALONE)
 102 static void do_binary(uint32_t);
 103 #endif /* DIS_STANDALONE */

 105 dis_handle_t *
 106 dis_handle_create(int flags, void *data, dis_lookup_f lookup_func,
 107     dis_read_f read_func)
 108 {

 110 #if !defined(DIS_STANDALONE)
 111         char *opt = NULL;
 112         char *opt2, *save, *end;
 113 #endif
 114         dis_handle_t *dhp;

 116         if ((flags & (DIS_SPARC_V8|DIS_SPARC_V9|DIS_SPARC_V9_SGI)) == 0) {
 117                 (void) dis_seterrno(E_DIS_INVALFLAG);
 118                 return (NULL);
 119         }

 121         if ((dhp = dis_zalloc(sizeof (struct dis_handle))) == NULL) {
 122                 (void) dis_seterrno(E_DIS_NOMEM);
 123                 return (NULL);
```

```
 124            }

 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;

 132 #if !defined(DIS_STANDALONE)

 134            opt = getenv("_LIBDISASM_DEBUG");
 135            if (opt == NULL)
 136                    return (dhp);

 138            opt2 = strdup(opt);
 139            if (opt2 == NULL) {
 140                    dis_handle_destroy(dhp);
 141                    (void) dis_seterrno(E_DIS_NOMEM);
 142                    return (NULL);
 143            }
 144            save = opt2;

 146            while (opt2 != NULL) {
 147                    end = strchr(opt2, ',');

 149                    if (end != 0)
 150                            *end++ = '\0';

 152                    if (strcasecmp("synth-all", opt2) == 0)
 153                            dhp->dh_debug |= DIS_DEBUG_SYN_ALL;

 155                    if (strcasecmp("compat", opt2) == 0)
 156                            dhp->dh_debug |= DIS_DEBUG_COMPAT;

 158                    if (strcasecmp("synth-none", opt2) == 0)
 159                            dhp->dh_debug &= ~(DIS_DEBUG_SYN_ALL|DIS_DEBUG_COMPAT);

 161                    if (strcasecmp("binary", opt2) == 0)
 162                            dhp->dh_debug |= DIS_DEBUG_PRTBIN;

 164                    if (strcasecmp("format", opt2) == 0)
 165                            dhp->dh_debug |= DIS_DEBUG_PRTFMT;

 167                    if (strcasecmp("all", opt2) == 0)
 168                            dhp->dh_debug = DIS_DEBUG_ALL;

 170                    if (strcasecmp("none", opt2) == 0)
 171                            dhp->dh_debug = DIS_DEBUG_NONE;

 173                    opt2 = end;
 174            }
 175            free(save);
 176 #endif /* DIS_STANDALONE */
 177            return (dhp);
 178 }
_____unchanged_portion_omitted_

 229 /* ARGSUSED */
 230 int
 231 dis_instrlen(dis_handle_t *dhp, uint64_t pc)
 232 {
 233            return (4);
 234 }

 236 #endif /* ! codereview */
 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;

 243            uint32_t instr;
 244            uint32_t idx = 0;

 246            if (dhp->dh_read(dhp->dh_data, addr, &instr, sizeof (instr)) !=
 247                sizeof (instr))
 248                    return (-1);

 250            dhp->dh_buf    = buf;
 251            dhp->dh_buflen = buflen;
 252            dhp->dh_addr   = addr;

 254            buf[0] = '\0';

 256            /* this allows sparc code to be tested on x86 */
 257            instr = BE_32(instr);

 259 #if !defined(DIS_STANDALONE)
 260            if ((dhp->dh_debug & DIS_DEBUG_PRTBIN) != 0)
 261                    do_binary(instr);
 262 #endif /* DIS_STANDALONE */

 264            /* CONSTCOND */
 265            while (1) {
 266                    idx = dis_get_bits(instr, tp->tbl_field, tp->tbl_len);
 267                    inp = &tp->tbl_inp[idx];

 269                    inp = dis_get_overlay(dhp, tp, idx);

 271                    if ((inp->in_type == INST_NONE) ||
 272                        ((inp->in_arch & dhp->dh_flags) == 0))
 273                            goto error;

 275                    if (inp->in_type == INST_TBL) {
 276                            tp = inp->in_data.in_tbl;
 277                            continue;
 278                    }

 280                    break;
 281            }

 283            if (tp->tbl_fmt(dhp, instr, inp, idx) == 0)
 284                    return (0);

 286 error:

 288            (void) snprintf(buf, buflen,
 289                ((dhp->dh_flags & DIS_OCTAL) != 0) ? "0%011lo" : "0x%08lx",
 290                instr);

 292            return (0);
 293 }

 295 static uint32_t
 296 dis_get_bits(uint32_t instr, int offset, int length)
 297 {
 298            uint32_t mask, val;
 299            int i;

 301            for (i = 0, mask = 0; i < length; ++i)
 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 */
```

```
*********************************************************
    2818 Sun Feb 24 21:11:30 2013
new/usr/src/lib/libproc/Makefile.com
saveargs: let disasm do the lifting
3544 save-args matcher could be considerably more robust
3545 save-args matcher should accept saves maybe out-of-order
Reviewed by: Joshua M. Clulow <josh@sysmgr.org>
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  24 #

  26 LIBRARY = libproc.a
  27 VERS = .1

  29 CMNOBJS =           \
  30        P32ton.o        \
  31        Pcontrol.o      \
  32        Pcore.o         \
  33        Pexecname.o     \
  34        Pfdinfo.o       \
  35        Pgcore.o        \
  36        Pidle.o         \
  37        Pisprocdir.o    \
  38        Plwpregs.o      \
  39        Pservice.o      \
  40        Psymtab.o       \
  41        Psymtab_machelf32.o \
  42        $(CMNOBJS64)    \
  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    \
```

```
  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

  74 ISAOBJS =           \
  75        Pisadep.o

  77 amd64_SAVEOBJS = \
  78        saveargs.o

  80 amd64_CPPFLAGS = -I$(SRC)/common/saveargs

  82 SAVEOBJS = $($(MACH64)_SAVEOBJS)

  77 OBJECTS = $(CMNOBJS) $(ISAOBJS) $(SAVEOBJS)

  79 # include library definitions
  80 include ../../Makefile.lib
  81 include ../../Makefile.rootfs

  83 SRCS =          $(CMNOBJS:%.o=../common/%.c) $(ISAOBJS:%.o=%.c)

  85 LIBS =          $(DYNLIB) $(LINTLIB)
  86 LDLIBS +=       -lrtld_db -lelf -lctf -lc
  87 CPPFLAGS +=     $($(MACH64)_CPPFLAGS)

  89 SRCDIR =        ../common
  90 $(LINTLIB) :=   SRCS = $(SRCDIR)/$(LINTSRC)

  92 CFLAGS +=       $(CCVERBOSE)
  93 CPPFLAGS +=     -I$(SRCDIR)

  95 CERRWARN +=     -_gcc=-Wno-uninitialized
  96 CERRWARN +=     -_gcc=-Wno-parentheses
  97 CERRWARN +=     -_gcc=-Wno-type-limits
  98 CERRWARN +=     -_gcc=-Wno-unused-label

 100 # All interfaces are interposable, therefore don't allow direct binding to
 101 # libproc.  Disable libproc from directly binding to itself, but allow libperl
 102 # to directly bind to its dependencies (ie. map -Bdirect -> -zdirect).  Ensure
 103 # lazy loading is established (which is enabled automatically with -Bdirect).
 104 BDIRECT =
 105 DYNFLAGS +=     $(BNODIRECT) $(ZDIRECT) $(ZLAZYLOAD)

 107 .KEEP_STATE:

 109 all: $(LIBS)

 111 lint: lintcheck

 113 # include library targets
 114 include ../../Makefile.targ

 116 objs/%.o pics/%.o: %.c
 117        $(COMPILE.c) -o $@ $<
```

```
 118            $(POST_PROCESS_O)

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

****
   1141 Sun Feb 24 21:11:31 2013
new/usr/src/lib/libproc/amd64/Makefile
saveargs: Implement as libsaveargs
saveargs: let disasm do the lifting
****
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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)**

```
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  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)

  60 check: $(CHECKHDRS)
```

```
  62 $(SUBDIRS):      FRC
  63          @cd $@; pwd; $(MAKE) $(TARGET)

  65 FRC:
  66 #endif /* ! codereview */
```

```
********************************************************
    3063 Sun Feb 24 21:11:31 2013
new/usr/src/lib/libsaveargs/Makefile.com
saveargs: Implement as libsaveargs
********************************************************
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 26 #
 27 # The build process for libsaveargs is sightly 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=    libstandsaveargs.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

 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 */
```

```
*********************************************************
    2209 Sun Feb 24 21:11:32 2013
new/usr/src/lib/libsaveargs/Makefile.targ
saveargs: Implement as libsaveargs
*********************************************************
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  24 #

  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)

  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 */
```

****
**   1114 Sun Feb 24 21:11:32 2013**
new/usr/src/lib/libsaveargs/amd64/Makefile
saveargs: Implement as libsaveargs
****
```
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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 */
```

```
**********************************************************
    8810 Sun Feb 24 21:11:32 2013
new/usr/src/lib/libsaveargs/amd64/saveargs.c
saveargs: Implement as libsaveargs
**********************************************************
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  18   *
  19   * CDDL HEADER END
  20   */
  21  /*
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  24   */


  27  /*
  28   * The Sun Studio and GCC (patched for opensolaris/illumos) compilers
  29   * implement a argument saving scheme on amd64 via the -Wu,save-args or
  30   * options.  When the option is specified, INTEGER type function arguments
  31   * passed via registers will be saved on the stack immediately after %rbp, and
  32   * will not be modified through out the life of the routine.
  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   * }
  58   *
  59   * 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.
  96   * looking for each argument saving instruction we would expect to see.  We
  97   * loop byte-by-byte, rather than doing anything smart about insn lengths,
  98   * only deviating from this when we know we have our insn, and can skip the
  99   * rest of it.
  97   *
  98   * If there are odd number of arguments to a function, additional space is
  99   * reserved on the stack to maintain 16-byte alignment.  For example,
 100   *
 101   *      argc == 0: no argument saving.
 102   *      argc == 3: save 3, but space for 4 is reserved
 103   *      argc == 7: save 6.
 104   */

 106  #include <sys/sysmacros.h>
 107  #include <sys/types.h>
 108  #include <libdisasm.h>
 109  #include <string.h>

 111  #endif /* ! codereview */
 112  #include <saveargs.h>

 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

 120  #define INSTR1(ins, off) (ins[(off)])
 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))

 128 /*
 129  * Sun Studio 10 patch implementation saves %rdi first;
 130  * GCC 3.4.3 Sun branch implementation saves them in reverse order.
 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 };

 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 };

 150 /*
 151  * If the return type of a function is a structure greater than 16 bytes in
 152  * size, %rdi will contain the address to which it should be stored, and
 153  * arguments will begin at %rsi.  Studio will push all of the normal argument
 154  * registers anyway, GCC will start pushing at %rsi, so we need a separate
 155  * pattern.
 156  */
 157 static const uint32_t save_instr_sr[INSTR_ARRAY_SIZE-1] = {
 158         0xf8758948,     /* movq %rsi,-0x8(%rbp) */
 159         0xf0558948,     /* movq %rdx,-0x10(%rbp) */
 160         0xe84d8948,     /* movq %rcx,-0x18(%rbp) */
 161         0xe045894c,     /* movq %r8,-0x20(%rbp) */
 162         0xd84d894c      /* movq %r9,-0x28(%rbp) */
 163 };

 165 static const uint8_t save_fp_pushes[] = {
 166         0x55,   /* pushq %rbp */
 167         0xcc    /* int $0x3 */
 168 };
 169 #define NUM_FP_PUSHES (sizeof (save_fp_pushes) / sizeof (save_fp_pushes[0]))

 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]))

 177 typedef struct {
 178         uint8_t *data;
 179         size_t size;
 180 } text_t;

 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);
```

```
 190         len = MIN(len, t->size - addr);

 192         (void) memcpy(buf, (char *)t->data + addr, len);

 194         return (len);
 195 }

 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 }

 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;

 212         t.data = ins;
 213         t.size = size;

 215         dis_set_data(dhp, &t);
 216         return (dis_instrlen(dhp, i));
 217 }

 219 static boolean_t
 220 has_saved_fp(dis_handle_t *dhp, uint8_t *ins, int size)
 111 has_saved_fp(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;

 227         for (i = 0; i < size; i += sz) {
 228                 if ((sz = instr_size(dhp, ins, i, size)) == -1)
 229                         return (B_FALSE);

 231                 if (found_push == B_FALSE) {
 232                         if (sz != 1)
 233                                 continue;
 115     int found_push = 0;

 117     for (i = 0; i < size; i++) {
 118         if (found_push == 0) {
 235                         n = INSTR1(ins, i);
 236                         for (j = 0; j <= NUM_FP_PUSHES; j++)
 237                                 if (save_fp_pushes[j] == n) {
 238                                         found_push = B_TRUE;
 122                         found_push = 1;
 239                                         break;
 240                                 }
 241                 } else {
 242                         if (sz != 3)
 243                                 continue;
 244 #endif /* ! codereview */
 245                         n = INSTR3(ins, i);
 246                         for (j = 0; j <= NUM_FP_MOVS; j++)
 247                                 if (save_fp_movs[j] == n)
 248                                         return (B_TRUE);
 126                         return (1);
 249                 }
```

```
 250                }

 252                return (B_FALSE);
 130                return (0);
 253 }

 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 */

 266                argc = MIN((start_index + argc), INSTR_ARRAY_SIZE);

 268                if ((dhp = dis_handle_create(DIS_X86_SIZE64, NULL, do_lookup,
 269                    do_read)) == NULL)
 270                        return (SAVEARGS_NO_ARGS);

 272                if (!has_saved_fp(dhp, ins, size)) {
 273                        dis_handle_destroy(dhp);
 138                if (!has_saved_fp(ins, size))
 274                        return (SAVEARGS_NO_ARGS);
 275                }
 276 #endif /* ! codereview */

 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.
 140                 * Compare against Sun Studio implementation
 282                 */
 142                for (i = 4, j = 0; i <= size - 4; i++) {
 143                        n = INSTR4(ins, i);

 145                        if (n == save_instr[j]) {
 146                                i += 3;
 147                                if (++j >= argc)
 148                                        return (start_index ? SAVEARGS_STRUCT_ARGS :
 149                                            SAVEARGS_TRAD_ARGS);
 150                        }
 151                }

 284                /*
 285                 * Compare against regular implementation
 154                 * Compare against GCC implementation
 286                 */
 287                found = 0;
 288                for (i = 0; i < size; i += sz) {
 289                        sz = instr_size(dhp, ins, i, size);

 291                        if (sz == -1)
 292                                break;
 293                        else if (sz != 4)
 294                                continue;

 156                for (i = 4, j = argc - 1; i <= size - 4; i++) {
 296                        n = INSTR4(ins, i);

 298                        for (j = 0; j < argc; j++) {
 299 #endif /* ! codereview */
 300                                if (n == save_instr[j]) {
```

```
 301                                        found |= (1 << j);

 303                                        if (found == ((1 << argc) - 1)) {
 304                                                ret = start_index ?
 305                                                    SAVEARGS_STRUCT_ARGS :
 306                                                    SAVEARGS_TRAD_ARGS;
 307                                                goto done;
 308                                        }

 310                                        break;
 311                                }
 159                        i += 3;
 160                        if (--j < start_index)
 161                                return (SAVEARGS_TRAD_ARGS);
 312                        }
 313                }

 315                /*
 316                 * Compare against GCC push-based implementation
 317                 */
 318                found = 0;
 319                for (i = 0; i < size; i += sz) {
 320                        if ((sz = instr_size(dhp, ins, i, size)) == -1)
 321                                break;

 323                        for (j = start_index; j < argc; j++) {
 324                                if (sz == 2) /* Two byte */
 325                                        n = INSTR2(ins, i);
 326                                else if (sz == 1)
 327                                        n = INSTR1(ins, i);
 328                                else
 329                                        continue;
 168                for (i = 4, j = start_index; i <= size - 2; i += 1) {
 169                        n = (i >= (8 - start_index)) ? INSTR2(ins, i) : INSTR1(ins, i);

 331                                if (n == save_instr_push[j]) {
 332                                        found |= (1 << (j - start_index));

 334                                        if (found ==
 335                                            ((1 << (argc - start_index)) - 1)) {
 336                                                ret = SAVEARGS_TRAD_ARGS;
 337                                                goto done;
 338                                        }

 340                                        break;
 341                                }
 172                        if (i >= (8 - start_index))
 173                                i += 1;
 174                        if (++j >= argc)
 175                                return (SAVEARGS_TRAD_ARGS);
 342                        }
 343                }

 345                /*
 346                 * Look for a GCC-style returned structure.
 347                 */
 348                found = 0;
 179                /* Look for a GCC-style returned structure */
 349                if (start_index != 0) {
 350                        for (i = 0; i < size; i += sz) {
 351                                sz = instr_size(dhp, ins, i, size);

 353                                if (sz == -1)
 354                                        break;
 355                                else if (sz != 4)
 356                                        continue;
```

```
 181                    for (i = 4, j = argc - 2; i <= size - 4; i++) {
 358                            n = INSTR4(ins, i);

 360                            /* argc is inclusive of start_index, allow for that */
 361                            for (j = 0; j < (argc - start_index); j++) {
 362 #endif /* ! codereview */
 363                                    if (n == save_instr_sr[j]) {
 364                                            found |= (1 << j);

 366                                            if (found ==
 367                                                ((1 << (argc - start_index)) - 1)) {
 368                                                    ret = SAVEARGS_TRAD_ARGS;
 369                                                    goto done;
 370                                            }

 372                                            break;
 373                                    }
 184                            i += 3;
 185                            if (--j >= (argc - 1))
 186                                    return (SAVEARGS_TRAD_ARGS);
 374                            }
 375                    }
 376            }

 378 done:
 379            dis_handle_destroy(dhp);
 380            return (ret);
 191            return (SAVEARGS_NO_ARGS);
 381 }
```
_____*unchanged_portion_omitted_*

****
**   559 Sun Feb 24 21:11:32 2013**
new/usr/src/lib/libsaveargs/common/linktest_stand.c
saveargs: Implement as libsaveargs
****
```
   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 void memcpy(void) {}
  13 void dis_set_data(void) {}
  14 void dis_instrlen(void) {}
  15 void dis_handle_create(void) {}
  16 void dis_handle_destroy(void) {}
  17
  18 #endif /* ! codereview */
```

```
********************************************************
      471 Sun Feb 24 21:11:32 2013
new/usr/src/lib/libsaveargs/common/llib-lsaveargs
saveargs: Implement as libsaveargs
********************************************************
    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 /* LINTLIBRARY */
   13 /* PROTOLIB1 */

   15 #include <saveargs.h>
   16 #endif /* ! codereview */
```

```
*********************************************************
     909 Sun Feb 24 21:11:33 2013
new/usr/src/lib/libsaveargs/common/mapfile-vers
saveargs: Implement as libsaveargs
*********************************************************
   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 <contributor>.  All rights reserved.
  14 #

  16 #
  17 # MAPFILE HEADER START
  18 #
  19 # WARNING:  STOP NOW.  DO NOT MODIFY THIS FILE.
  20 # Object versioning must comply with the rules detailed in
  21 #
  22 #       usr/src/lib/README.mapfiles
  23 #
  24 # You should not be making modifications here until you've read the most current
  25 # copy of that file. If you need help, contact a gatekeeper for guidance.
  26 #
  27 # MAPFILE HEADER END
  28 #

  30 $mapfile_version 2

  32 SYMBOL_VERSION ILLUMOSprivate {
  33         global:
  34                 saveargs_has_args;
  35         local:
  36                 *;
  37 };
  38 #endif /* ! codereview */
```

****
347 Sun Feb 24 21:11:33 2013
new/usr/src/lib/libsaveargs/tests/README
saveargs: Implement as libsaveargs
****
   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 Sun Feb 24 21:11:33 2013
new/usr/src/lib/libsaveargs/tests/dump/Makefile
saveargs: Implement as libsaveargs
*********************************************************
   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 $(SRC)/Makefile.master
  17 include $(SRC)/Makefile.master.64

  19 .KEEP_STATE:

  21 OBJECTS = dump.o
  22 PROG = dump

  24 CFLAGS += -m64

  26 LDFLAGS += -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 */
```

```
**********************************************************
    3643 Sun Feb 24 21:11:34 2013
new/usr/src/lib/libsaveargs/tests/dump/dump.c
saveargs: Implement as libsaveargs
**********************************************************

   2 /*
   3  * This file and its contents are supplied under the terms of the
   4  * Common Development and Distribution License ("CDDL"), version 1.0.
   5  * You may only use this file in accordance with the terms of version
   6  * 1.0 of the CDDL.
   7  *
   8  * A full copy of the text of the CDDL should have accompanied this
   9  * source.  A copy of the CDDL is also available via the Internet at
  10  * http://www.illumos.org/license/CDDL.
  11  */

  13 #include <err.h>
  14 #include <fcntl.h>
  15 #include <gelf.h>
  16 #include <libctf.h>
  17 #include <saveargs.h>
  18 #include <stdarg.h>
  19 #include <stdio.h>
  20 #include <stdlib.h>
  21 #include <strings.h>
  22 #include <unistd.h>

  24 extern const char *__progname;

  26 typedef struct symtab_sym {
  27         GElf_Sym ss_sym;
  28         char *ss_name;
  29         ctf_funcinfo_t ss_finfo;
  30         uint8_t *ss_data;
  31         size_t ss_size;
  32 } symtab_sym_t;

  34 static void
  35 walk_symtab(Elf *elf, char *fname, ctf_file_t *fp,
  36     void (*callback)(ctf_file_t *, symtab_sym_t *))
  37 {
  38         Elf_Scn *stab = NULL;
  39         Elf_Scn *text = NULL;
  40         Elf_Data *stabdata = NULL;
  41         Elf_Data *textdata = NULL;
  42         GElf_Ehdr ehdr;
  43         GElf_Shdr stabshdr;
  44         GElf_Shdr textshdr;
  45         int foundtext = 0, foundstab = 0;
  46         symtab_sym_t ss;

  48         if ((gelf_getehdr(elf, &ehdr)) == NULL)
  49                 errx(1, "could not read ELF header from %s\n",
  50                     fname);

  52         while ((stab = elf_nextscn(elf, stab)) != NULL) {
  53                 (void) gelf_getshdr(stab, &stabshdr);

  55                 if (stabshdr.sh_type == SHT_SYMTAB) {
  56                         foundstab = 1;
  57                         break;
  58                 }
  59         }

  61         while ((text = elf_nextscn(elf, text)) != NULL) {
```

```
  62                 (void) gelf_getshdr(text, &textshdr);

  64                 if (strcmp(".text", elf_strptr(elf,
  65                     ehdr.e_shstrndx, (size_t)textshdr.sh_name)) == 0) {
  66                         foundtext = 1;
  67                         break;
  68                 }
  69         }

  71         if (!foundstab || !foundtext)
  72                 return;

  74         stabdata = elf_getdata(stab, NULL);
  75         textdata = elf_rawdata(text, NULL);
  76         for (unsigned symdx = 0;
  77             symdx < (stabshdr.sh_size / stabshdr.sh_entsize);
  78             symdx++) {
  79                 (void) gelf_getsym(stabdata, symdx, &ss.ss_sym);

  81                 if ((GELF_ST_TYPE(ss.ss_sym.st_info) != STT_FUNC) ||
  82                     (ss.ss_sym.st_shndx == SHN_UNDEF))
  83                         continue;

  85                 ss.ss_name = elf_strptr(elf, stabshdr.sh_link,
  86                     ss.ss_sym.st_name);
  87                 ss.ss_data = ((uint8_t *)(textdata->d_buf)) +
  88                     (ss.ss_sym.st_value - textshdr.sh_addr);

  90                 if (ctf_func_info(fp, symdx, &ss.ss_finfo) == CTF_ERR) {
  91                         fprintf(stderr, "failed to get funcinfo for: %s\n",
  92                             ss.ss_name);
  93                         continue;
  94                 }

  96                 (void) callback(fp, &ss);
  97         }
  98 }

 100 void
 101 check_sym(ctf_file_t *ctfp, symtab_sym_t *ss)
 102 {
 103         int rettype = ctf_type_kind(ctfp, ss->ss_finfo.ctc_return);
 104         int start_index = 0;

 106         if (ss->ss_finfo.ctc_argc == 0) /* No arguments, no point */
 107                 return;

 109         if (((rettype == CTF_K_STRUCT) || (rettype == CTF_K_UNION)) &&
 110             ctf_type_size(ctfp, ss->ss_finfo.ctc_return) > 16)
 111                 start_index = 1;

 113         if (saveargs_has_args(ss->ss_data, ss->ss_sym.st_size,
 114             ss->ss_finfo.ctc_argc, start_index) != SAVEARGS_NO_ARGS)
 115                 printf("%s has %d saved args\n", ss->ss_name,
 116                     ss->ss_finfo.ctc_argc);
 117 }

 119 int
 120 main(int argc, char **argv)
 121 {
 122         Elf             *elf;
 123         ctf_file_t      *ctfp;
 124         int errp, fd;

 126         if (ctf_version(CTF_VERSION) == -1)
 127                 errx(1, "mismatched libctf versions\n");
```

```
129            if (elf_version(EV_CURRENT) == EV_NONE)
130                    errx(1, "mismatched libelf versions\n");

132            if (argc != 2)
133                    errx(2, "usage: %s <file>\n", __progname);

135            if ((ctfp = ctf_open(argv[1], &errp)) == NULL)
136                    errx(1, "failed to ctf_open file: %s: %s\n", argv[1],
137                        ctf_errmsg(errp));

139            if ((fd = open(argv[1], O_RDONLY)) == -1)
140                    errx(1, "could not open %s\n", argv[1]);

142            if ((elf = elf_begin(fd, ELF_C_READ, NULL)) == NULL)
143                    errx(1, "could not interpret ELF from %s\n",
144                        argv[1]);

146            walk_symtab(elf, argv[1], ctfp, check_sym);

148            (void) elf_end(elf);
149            (void) close(fd);

151            return (0);
152 }
153 #endif /* ! codereview */
```

****
```
     767 Sun Feb 24 21:11:36 2013
new/usr/src/lib/libsaveargs/tests/testmatch/Makefile
saveargs: Implement as libsaveargs
```
****
```
   2 #endif /* ! codereview */
   3 #
   4 # This file and its contents are supplied under the terms of the
   5 # Common Development and Distribution License ("CDDL"), version 1.0.
   6 # You may only use this file in accordance with the terms of version
   7 # 1.0 of the CDDL.
   8 #
   9 # A full copy of the text of the CDDL should have accompanied this
  10 # source.  A copy of the CDDL is also available via the Internet at
  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
   1 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
```

```
*********************************************************
   10515 Sun Feb 24 21:11:36 2013
new/usr/src/lib/libsaveargs/tests/testmatch/data.s
saveargs: Implement as libsaveargs
*********************************************************
_____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
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_

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
189 pushq   %rcx
190 pushq   %r8
191 subq    $0x30,%rsp
```

```
192 SET_SIZE(gcc_push_big_struct_ret, gcc_push_big_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_en

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_spil

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_en

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(av1394_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(av1394_ic_bitreverse, av1394_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 */
```

```
     **********************************************************
         4860 Sun Feb 24 21:11:37 2013
     new/usr/src/lib/libsaveargs/tests/testmatch/testmatch.c
     saveargs: Implement as libsaveargs
     **********************************************************
   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)                             \
  33      if (saveargs_has_args(name, SIZE_OF(name), argc, 1) != 0)   \
  47                      printf("Pass: %s\n", #name);                \
  48          else                                                    \
  49                  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)                               \
  39      if (saveargs_has_args(name, SIZE_OF(name), argc, 0) == 0)   \
  54                      printf("Pass: %s\n", #name);                \
  55          else                                                    \
  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)                               \
  45      if (saveargs_has_args(name, SIZE_OF(name), argc, 1) == 0)   \
  68                      printf("Pass: %s\n", #name);                \
  69          else                                                    \
  70                      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);
 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);
  52         TEST_GOOD_STRUCT(big_struct_ret_w_float, 1);
 132         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);
  63         TEST_GOOD_STRUCT(gcc_mov_big_struct_ret, 4);
  64         TEST_GOOD_STRUCT(gcc_push_big_struct_ret, 4);
 147         TEST_GOOD_STRUCT(ss_mov_big_struct_ret, 4);

 149         TEST_GOOD_GSTRUCT(gcc_mov_struct_noorder, 4);
 150         TEST_GOOD_GSTRUCT(gcc_push_struct_noorder, 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);
  67         TEST_GOOD_STRUCT(gcc_mov_big_struct_ret_and_spill, 8);
  68         TEST_GOOD_STRUCT(gcc_push_big_struct_ret_and_spill, 8);
 154         TEST_GOOD_STRUCT(ss_mov_big_struct_ret_and_spill, 8);

 156         TEST_GOOD(gcc_mov_small_struct_ret, 4);
 157         TEST_GOOD(gcc_push_small_struct_ret, 4);
 158         TEST_GOOD(ss_mov_small_struct_ret, 4);

 160         TEST_GOOD(gcc_mov_small_struct_ret_and_spill, 8);
 161         TEST_GOOD(gcc_push_small_struct_ret_and_spill, 8);
 162         TEST_GOOD(ss_mov_small_struct_ret_and_spill, 8);

 164         TEST_GOOD(gcc_mov_stack_spill, 8);
 165         TEST_GOOD(gcc_push_stack_spill, 8);
 166         TEST_GOOD(ss_mov_stack_spill, 8);

 168         TEST_BAD(big_struct_arg_by_value, 2);
 169         TEST_BAD(small_struct_arg_by_value, 2);

 171         TEST_BAD(small_struct_ret_w_float, 1);

 173         TEST_GOOD(interleaved_argument_saves, 4);

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

```
    1 #
    2 # CDDL HEADER START
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   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.man3commputil.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.man3kvm.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.man3nsl.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>
   59 <include system-library.man3socket.inc>
   60 <include system-library.man3tsol.inc>
   61 <include system-library.man3uuid.inc>
```

```
   62 <include system-library.man3volmgt.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
  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/man3commputil
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/man3exacct
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/man3kvm
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/man3nsl
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/man3volmgt
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=usr/xpg4
164 dir path=usr/xpg4/lib
165 dir path=usr/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)/libcmdutils.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/$(ARCH64)/libefi.so.1
189 file path=lib/$(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/$(ARCH64)/liblddbg.so.4
199 file path=lib/$(ARCH64)/libmd.so.1
200 file path=lib/$(ARCH64)/libmd5.so.1
201 file path=lib/$(ARCH64)/libmp.so.2
202 file path=lib/$(ARCH64)/libnsl.so.1
203 file path=lib/$(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)/libuuid.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/libcmdutils.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/libdhcpagent.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 $(i386_ONLY)file path=lib/libfdisk.so.1
268 file path=lib/libgen.so.1
269 file path=lib/libinetutil.so.1
270 file path=lib/libintl.so.1
271 file path=lib/libipadm.so.1
272 file path=lib/libipmp.so.1
273 file path=lib/libkcfd.so.1
274 file path=lib/libkmf.so.1
275 file path=lib/libkmfberder.so.1
276 file path=lib/libkstat.so.1
277 file path=lib/libld.so.4
278 file path=lib/liblddbg.so.4
279 file path=lib/libmd.so.1
280 file path=lib/libmd5.so.1
281 file path=lib/libmp.so.1
282 file path=lib/libmp.so.2
283 file path=lib/libnsl.so.1
284 file path=lib/libnvpair.so.1
285 file path=lib/libnwam.so.1
286 file path=lib/libpam.so.1
287 file path=lib/libproc.so.1
288 file path=lib/libpthread.so.1
289 file path=lib/librcm.so.1
290 file path=lib/libresolv.so.1
291 file path=lib/libresolv.so.2
292 file path=lib/librestart.so.1
293 file path=lib/librpcsvc.so.1
294 file path=lib/librt.so.1
295 file path=lib/librtld.so.1
296 file path=lib/librtld_db.so.1
297 file path=lib/libscf.so.1
298 file path=lib/libsec.so.1
299 file path=lib/libsecdb.so.1
300 file path=lib/libsendfile.so.1
301 file path=lib/libsocket.so.1
302 file path=lib/libsysevent.so.1
303 file path=lib/libtermcap.so.1
304 file path=lib/libthread.so.1
305 file path=lib/libtsnet.so.1
306 file path=lib/libtsol.so.2
307 file path=lib/libumem.so.1
308 file path=lib/libuuid.so.1
309 file path=lib/libuutil.so.1
310 file path=lib/libw.so.1
311 file path=lib/libxnet.so.1
312 file path=lib/mpxio/stmsboot_util mode=0555
313 file path=lib/nss_compat.so.1
314 file path=lib/nss_dns.so.1
315 file path=lib/nss_files.so.1
316 file path=lib/nss_nis.so.1
317 file path=lib/nss_user.so.1
318 file path=usr/lib/$(ARCH64)/0@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)/libcommputil.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)/libdisasm.so.1
328 file path=usr/lib/$(ARCH64)/libdll.so.1
329 file path=usr/lib/$(ARCH64)/libexacct.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)/libidmap.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/$(ARCH64)/libkvm.so.1
339 file path=usr/lib/$(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/$(ARCH64)/libsldap.so.1
361 file path=usr/lib/$(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/$(ARCH64)/libvolmgt.so.1
366 file path=usr/lib/$(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@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/libcommputil.so.1
397 file path=usr/lib/libcrle.so.1
398 file path=usr/lib/libcrypt.so.1
399 file path=usr/lib/libdisasm.so.1
400 file path=usr/lib/libdll.so.1
401 file path=usr/lib/libexacct.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/libraidcfg.so.1
426 file path=usr/lib/libreparse.so.1
427 file path=usr/lib/libsched.so.1
428 file path=usr/lib/libsctp.so.1
429 file path=usr/lib/libshell.so.1
430 file path=usr/lib/libsip.so.1
431 file path=usr/lib/libsldap.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 $(sparc_ONLY)file path=usr/lib/libv12n.so.1
437 file path=usr/lib/libvolmgt.so.1
438 file path=usr/lib/libwrap.so.1.0
439 file path=usr/lib/liby.so.1
440 file path=usr/lib/libzoneinfo.so.1
441 file path=usr/lib/nss_ad.so.1
442 file path=usr/lib/nss_ldap.so.1
443 file path=usr/lib/passwdutil.so.1
444 file path=usr/lib/python2.6/vendor-packages/solaris/__init__.py
445 file path=usr/lib/python2.6/vendor-packages/solaris/__init__.pyc
446 file path=usr/lib/python2.6/vendor-packages/solaris/misc.so
447 file path=usr/lib/raidcfg/$(ARCH64)/mpt.so.1
448 file path=usr/lib/raidcfg/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/$(ARCH64)/libsmp.so.1
452 file path=usr/lib/scsi/libscsi.so.1
453 file path=usr/lib/scsi/libses.so.1
454 file path=usr/lib/scsi/libsmp.so.1
455 file path=usr/lib/scsi/plugins/scsi/engines/$(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=SUNWcsl \
528     desc="core shared libraries for a specific instruction-set architecture" \
529     name="Core Solaris, (Shared Libs)"
530 legacy pkg=SUNWcslr \
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_OSBL license=lic_OSBL
536 license lic_OSBL_preamble license=lic_OSBL_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/libast/THIRDPARTYLICENSE \
553     license=usr/src/lib/libast/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/libdll/THIRDPARTYLICENSE \
561     license=usr/src/lib/libdll/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/libshell/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/$(ARCH64)/libtermlib.so target=libtermlib.so.1
634 link path=lib/$(ARCH64)/libtermlib.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)/libuutil.so target=libuutil.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/libdevid.so target=libdevid.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/libipmp.so target=./libipmp.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/librpcsvc.so target=librpcsvc.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/libuuid.so target=libuuid.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)/libaio.so \
746     target=../../../lib/$(ARCH64)/libaio.so.1
747 link path=usr/lib/$(ARCH64)/libaio.so.1 \
748     target=../../../lib/$(ARCH64)/libaio.so.1
749 link path=usr/lib/$(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/$(ARCH64)/libcmdutils.so.1 \
765     target=../../../lib/$(ARCH64)/libcmdutils.so.1
766 link path=usr/lib/$(ARCH64)/libcommputil.so target=libcommputil.so.1
767 link path=usr/lib/$(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/$(ARCH64)/libcrypt_d.so target=./libcrypt.so
773 link path=usr/lib/$(ARCH64)/libcrypt_d.so.1 target=./libcrypt.so.1
774 link path=usr/lib/$(ARCH64)/libcrypt_i.so target=./libcrypt.so
775 link path=usr/lib/$(ARCH64)/libcrypt_i.so.1 target=./libcrypt.so.1
776 link path=usr/lib/$(ARCH64)/libctf.so \
777     target=../../../lib/$(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/$(ARCH64)/libdhcputil.so.1 \
797     target=../../../lib/$(ARCH64)/libdhcputil.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)/libdlpi.so \
803     target=../../../lib/$(ARCH64)/libdlpi.so.1
804 link path=usr/lib/$(ARCH64)/libdlpi.so.1 \
805     target=../../../lib/$(ARCH64)/libdlpi.so.1
806 link path=usr/lib/$(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/$(ARCH64)/liblddbg.so.4 \
847     target=../../../lib/$(ARCH64)/liblddbg.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/$(ARCH64)/libmail.so target=libmail.so.1
851 link path=usr/lib/$(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)/libnsl.so \
867     target=../../../lib/$(ARCH64)/libnsl.so.1
868 link path=usr/lib/$(ARCH64)/libnsl.so.1 \
869     target=../../../lib/$(ARCH64)/libnsl.so.1
870 link path=usr/lib/$(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/$(ARCH64)/librt.so.1
882 link path=usr/lib/$(ARCH64)/libposix4.so.1 \
883     target=../../../lib/$(ARCH64)/librt.so.1
884 link path=usr/lib/$(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/$(ARCH64)/librtld_db.so.1
917 link path=usr/lib/$(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)/libuutil.so \
 982       target=../../../lib/$(ARCH64)/libuutil.so.1
 983 link path=usr/lib/$(ARCH64)/libuutil.so.1 \
 984       target=../../../lib/$(ARCH64)/libuutil.so.1
 985 $(sparc_ONLY)link path=usr/lib/$(ARCH64)/libv12n.so target=./libv12n.so.1
```

```
 986 link path=usr/lib/$(ARCH64)/libvolmgt.so target=libvolmgt.so.1
 987 link path=usr/lib/$(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/libadutils.so target=./libadutils.so.1
1023 link path=usr/lib/libaio.so target=../../lib/libaio.so.1
1024 link path=usr/lib/libaio.so.1 target=../../lib/libaio.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/libcommputil.so target=./libcommputil.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
1041 link path=usr/lib/libcrypt_d.so.1 target=./libcrypt.so.1
1042 link path=usr/lib/libcrypt_i.so target=./libcrypt.so
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/libexacct.so target=./libexacct.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/libkvm.so target=./libkvm.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/liblddbg.so.4 target=../../lib/liblddbg.so.4
1087 link path=usr/lib/liblgrp.so target=./liblgrp.so.1
1088 link path=usr/lib/liblm.so target=./liblm.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/libpkcs11.so target=./libpkcs11.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=./libreparse.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/libsctp.so target=./libsctp.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/libsecdb.so target=../../lib/libsecdb.so.1
1138 link path=usr/lib/libsecdb.so.1 target=../../lib/libsecdb.so.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=./libsip.so.1
1142 link path=usr/lib/libsldap.so target=libsldap.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=../../lib/libsysevent.so.1
1149 link path=usr/lib/libsysevent.so.1 target=../../lib/libsysevent.so.1
1150 link path=usr/lib/libtermcap.so target=../../lib/libtermcap.so.1
1151 link path=usr/lib/libtermcap.so.1 target=../../lib/libtermcap.so.1
1152 link path=usr/lib/libtermlib.so target=../../lib/libcurses.so.1
1153 link path=usr/lib/libtermlib.so.1 target=../../lib/libcurses.so.1
1154 link path=usr/lib/libthread.so target=../../lib/libthread.so.1
1155 link path=usr/lib/libthread.so.1 target=../../lib/libthread.so.1
1156 link path=usr/lib/libthread_db.so target=../../lib/libc_db.so.1
1157 link path=usr/lib/libthread_db.so.1 target=../../lib/libc_db.so.1
1158 link path=usr/lib/libtsnet.so target=../../lib/libtsnet.so.1
1159 link path=usr/lib/libtsnet.so.1 target=../../lib/libtsnet.so.1
1160 link path=usr/lib/libtsol.so target=../../lib/libtsol.so.2
1161 link path=usr/lib/libtsol.so.2 target=../../lib/libtsol.so.2
1162 link path=usr/lib/libumem.so target=../../lib/libumem.so.1
1163 link path=usr/lib/libumem.so.1 target=../../lib/libumem.so.1
1164 link path=usr/lib/libuuid.so target=../../lib/libuuid.so.1
1165 link path=usr/lib/libuuid.so.1 target=../../lib/libuuid.so.1
1166 link path=usr/lib/libuutil.so.1 target=../../lib/libuutil.so.1
1167 $(sparc_ONLY)link path=usr/lib/libv12n.so target=./libv12n.so.1
1168 link path=usr/lib/libvolmgt.so target=./libvolmgt.so.1
1169 link path=usr/lib/libw.so target=../../lib/libw.so.1
1170 link path=usr/lib/libw.so.1 target=../../lib/libw.so.1
1171 link path=usr/lib/libwrap.so target=libwrap.so.1.0
1172 link path=usr/lib/libwrap.so.1 target=libwrap.so.1.0
1173 link path=usr/lib/libxnet.so target=../../lib/libxnet.so.1
1174 link path=usr/lib/libxnet.so.1 target=../../lib/libxnet.so.1
1175 link path=usr/lib/liby.so target=./liby.so.1
1176 link path=usr/lib/libzoneinfo.so target=./libzoneinfo.so.1
1177 link path=usr/lib/lwp/$(ARCH64)/libthread.so.1 \
1178     target=../../$(ARCH64)/libthread.so.1
1179 link path=usr/lib/lwp/$(ARCH64)/libthread_db.so.1 \
1180     target=../../$(ARCH64)/libthread_db.so.1
1181 link path=usr/lib/lwp/32 target=.
1182 link path=usr/lib/lwp/64 target=$(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
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
```