

new/exception_lists/check_rtime

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*****
10872 Sun Jul 14 19:11:50 2019
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11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
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11465 sgsmsg should be built with the rest of the build tools
*****
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26 #

28 # This file provides exceptions to the usual rules applied to ELF objects by
29 # check_rtime. All strings are Perl regular expressions that are compared to
30 # file paths. In addition to the standard Perl syntax, there is one extension:
31 #
32 #      MACH(dir)
33 #
34 # is expanded into a regular expression that matches the given
35 # directory, or a 64-bit subdirectory of the directory with the
36 # name of a 64-bit architecture. For example, MACH(lib) will match
37 # any of the following:
38 #
39 #      lib
40 #      lib/amd64
41 #      lib/sparcv9

44 # Directory hierarchies to skip completely
45 SKIP      ^usr/lib/libc/          # optimized libc
46 SKIP      ^usr/lib/rcm/          # 4426119
47 SKIP      ^usr/perl5/           # alan's taking care of these :-
48 SKIP      ^usr/src/              # no objects in source code

50 # Individual files that we don't examine
51 SKIP      ^boot/grub/bin/grub$ 
52 # USIII specific extns. cause ldd noise on USII bld. m/c
53 SKIP      ^usr/lib/fps/sun4u/UltraSPARC.*/fptest$ 
54 SKIP      ^usr/MACH(lib)/lddstub$        # lddstub has no dependencies
55 SKIP      ^usr/MACH(lib)/libssagent\.so\.1$   # 4328854
56 SKIP      ^usr/lib/MACH(iconv)/geniconvtbl.so$    # 4384329

58 # picl file exclusions (4385799)
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59 SKIP      ^usr/platform/.*/libpsvcplugin_psr\.so\.1
60 SKIP      ^usr/platform/.*/libpsvcpolicy_psr\.so\.1
61 SKIP      ^usr/platform/.*/libpsvcpolicy\.so\.1
62 SKIP      ^usr/lib/sysevent/modules/picl_slm.so$

64 # Objects that are allowed to have executable data segments
65 EXEC_DATA  ^MACH(lib)/ld\.so\.1$          # 6524709, 32-bit, needed for x86 only
66 EXEC_DATA  ^lib/libc\.so\.1$                # ptcumem
67 EXEC_DATA  ^MACH(lib)/libumem\.so\.1$       # ptcumem
68 EXEC_DATA  ^opt/SUNWdrt/tst/.*/ustack/tst\.helper\.exe$ 
69 EXEC_DATA  ^platform/.*/MACH(kernel)/unix$

71 # Objects that are allowed to have an executable stack
72 EXEC_STACK  ^platform/.*/MACH(kernel)/unix$ 
73 EXEC_STACK  ^platform/.*/multiboot$ 
74 EXEC_STACK  ^opt/os-tests/tests/secflags/stacky$ 

76 # Objects for which we allow relocations to the text segment
77 TEXTREL   ^platform/.*/MACH(kernel)/unix$ 

79 # Directories and files that are allowed to have no direct bound symbols
80 NODIRECT   ^platform/.*/MACH(kernel)/unix$ 
81 NODIRECT   ^usr/ucb 
82 NODIRECT   ^usr/4lib/sbcp$ 

84 # Identify any files that should be skipped when building a crle(1)
85 # configuration file. As the hwcap libraries can be loop-back mounted onto
86 # libc, these can confuse crle(1) because of their identical dev/inode.
87 NOCRLEALT ^usr/lib/libc/libc_hwcap[1-3].so.1$ 

89 # Files that should contain debugging information.
90 STAB      ^platform/.*/MACH(kernel)/unix$ 

92 # Files that are allowed undefined references
93 UNDEF_REF  ^usr/lib/libnisdb\.so\.2$ 

95 # Objects allowed to have unused dependencies
96 UNUSED_DEPS ^usr/lib/picl/plugins/          # require devtree dependencies

98 # libnetsnmphelpers.so is empty in some net-snmp versions
99 UNUSED_OBJ  unused object=.*/libnetsnmphelpers\.so\...*
100 UNREF_OBJ   unreferenced object=.*/libnetsnmphelpers\.so\...* 

102 # Unused runpaths due to dlopen() use
103 UNUSED_RPATH /usr/lib/fs/autofs.*\ from\ .automountd
104 UNUSED_RPATH /etc/ppp/plugins.*\ from\ .*pppd
105 UNUSED_RPATH /usr/lib/inet/ppp.*\ from\ .*pppd
106 UNUSED_RPATH /usr/platform/*rsplib.*\ from\ .*librsm\.so\.2
107 UNUSED_RPATH \$ORIGIN.*\ from\ .*fcode.so
108 UNUSED_RPATH /opt/VRTSvxvm/lib.*\ from\ .*libdiskmgt\.so\.1

110 # Unused runpaths in picl code
111 UNUSED_RPATH /usr/platform/.*\ from\ .*usr/platform
112 UNUSED_RPATH /usr/lib/picl/.*\ from\ .*usr/platform
113 UNUSED_RPATH /usr/platform/.*\ from\ .*usr/lib/picl

115 # Unused runpaths in non-OSNET objects we can't change
116 UNUSED_RPATH /usr/lib/mps.*\ from\ .*libnss3\.so
117 UNUSED_RPATH /usr/lib/mps.*\ from\ .*libnssutil3\.so
118 UNUSED_RPATH /usr/lib/mps.*\ from\ .*libsmime3\.so
119 UNUSED_RPATH /usr/lib/mps.*\ from\ .*libssl3\.so
120 UNUSED_RPATH /usr/lib.*\ from\ .*usr/lib/mps
121 UNUSED_RPATH /usr/gnu/lib.*\ from\ .*usr/lib/libpython2..
122 UNUSED_RPATH /usr/gnu/lib.*\ from\ .*usr/lib/64/libpython2..
123 UNUSED_RPATH /usr/gnu/lib.*\ from\ .*usr/lib/64/libpython3..
124 UNUSED_RPATH /usr/snadm/lib.*\ from\ .*usr/snadm/lib/libspmicommon\.so\.1
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125 UNUSED_RPATH    /usr/gcc./.*/lib.*\ from\ .*
127 # Unused runpaths for reasons not captured above
128 UNUSED_RPATH    /usr/lib/smbsrv.*\ from\ .*libsmb\.so\.1      # future needs

130 # Unreferenced objects of non-OSNet objects we can't change
131 UNREF_OBJ       /lib.*\ of\ .*libcimapi.so
132 UNREF_OBJ       /lib.*\ of\ .*libdbus-1\.so\.3
133 UNREF_OBJ       /lib.*\ of\ .*libdbus-glib-1\.so\.2
134 UNREF_OBJ       /lib.*\ of\ .*libgio-2.0\.so\.0
135 UNREF_OBJ       /lib.*\ of\ .*libglib-2.0\.so\.0
136 UNREF_OBJ       /lib.*\ of\ .*libgobject-2.0\.so\.0
137 UNREF_OBJ       /lib.*\ of\ .*libgthread-2.0\.so\.0
138 UNREF_OBJ       /lib.*\ of\ .*libjvm\.so
139 UNREF_OBJ       /lib.*\ of\ .*libnetsnmp\.so\...
140 UNREF_OBJ       /lib.*\ of\ .*libnetsnmpagent\.so\...
141 UNREF_OBJ       /lib.*\ of\ .*libnetsnmpmibs\.so\...
142 UNREF_OBJ       /lib.*\ of\ .*libnetsnmphelpers\.so\...
143 UNREF_OBJ       /lib.*\ of\ .*libnspr4\.so
144 UNREF_OBJ       /lib.*\ of\ .*libpq\.so\.5
145 UNREF_OBJ       /lib.*\ of\ .*libsoftokn3\.so
146 UNREF_OBJ       /lib.*\ of\ .*libspmicommon\.so\.1
147 UNREF_OBJ       /lib.*\ of\ .*libspmocommon\.so\.1
148 UNREF_OBJ       /lib.*\ of\ .*libssl3\.so
149 UNREF_OBJ       /lib.*\ of\ .*libtspi\.so\.1
150 UNREF_OBJ       /lib.*\ of\ .*libxml2\.so\.2
151 UNREF_OBJ       /lib.*\ of\ .*libxslt\.so\.1
152 UNREF_OBJ       /lib.*\ of\ .*libpq\.so\.4
153 UNREF_OBJ       /lib.*\ of\ .*libpython2\.4\.so\.1\.0
154 UNREF_OBJ       /lib.*\ of\ .*libpython2\.6\.so\.1\.0
155 UNREF_OBJ       /lib.*\ of\ .*libpython2\.7\.so\.1\.0
156 UNREF_OBJ       /lib.*\ of\ .*libpython3\[567]m?\.so\.1\.0
157 UNREF_OBJ       /libgcc_s.*\ of\ .*libstdc\+\+.so\.6
158 UNREF_OBJ       /libgcc_s.*\ of\ .*libgmodule-2\.0\.so\.0

160 # Unreferenced object of objects we can't change for other reasons
161 UNREF_OBJ       /libmapmalloc\.so\.1; \ unused\ dependency\ of      # interposer
162 UNREF_OBJ       /libstdc\+\+.so\.6; \ unused\ dependency\ of      # gcc build
163 UNREF_OBJ       /libgcc_s\.so\.1; \ unused\ dependency\ of      # gcc build
164 UNREF_OBJ       /libgcc_s\.so\.1.*\ of\ .*libstdc\+\+.so\.6      # omnios gcc mix
165 UNREF_OBJ       /libm\.so\.2.*\ of\ .*libstdc\+\+.so\.6        # gcc build
166 UNREF_OBJ       /lib.*\ of\ .*lib/pic1/plugins/               # pic1
167 UNREF_OBJ       /lib.*\ of\ .*kcfd                         # interposer
168 UNREF_OBJ       /libpkcs11\.so\.1; .*\. of\ .*libkmf\.so\.1      # interposed
169 # Referenced by the Studio build, not the GCC build.  GCC eliminates the unused
170 # statics which have the dependence.
171 UNREF_OBJ       /libc\.so\.1.*\ of\ .*kldap\.so\.1

174 # Objects that used to contain system functionality that has since
175 # migrated to libc. We preserve these libraries as pure filters for
176 # backward compatibility but nothing needs to link to them.
177 OLDDEP          libaio\.so\.1           # onnv build 44
178 OLDDEP          libdl\.so\.1           # on10 build 49
179 OLDDEP          libdoor\.so\.1          # onnv build 12
180 OLDDEP          libintl\.so\.1          # on297 build 7
181 OLDDEP          libpthread\.so\.1         # on10 build 53
182 OLDDEP          librt\.so\.1            # onnv build 44
183 OLDDEP          libsched\.so\.1          # on10 build 36
184 OLDDEP          libthread\.so\.1          # on10 build 53
185 OLDDEP          libw\.so\.1             # on297 build 7

187 # Files for which we skip checking of duplicate addresses in the
188 # symbol sort sections. Such exceptions should be rare --- most code will
189 # not have duplicate addresses, since it takes assembler or a "#pragma weak"
190 # to do such aliasing in C. C++ is different: The compiler generates aliases

```

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191 # for implementation reasons, and the mangled names used to encode argument
192 # and return value types are difficult to handle well in mapfiles.
193 # Furthermore, the Sun compiler and gcc use different and incompatible
194 # name mangling conventions. Since illumos must be buildable by either, we
195 # would have to maintain two sets of mapfiles for each such object.
196 # C++ use is rare in illumos, so this is not worth pursuing.
197 #
198 NOSYMSORT      opt/SUNWdtrt/tst/common/pid/tst.weak2.exe      # DTrace test
199 NOSYMSORT      ld\.so\.1                                         # libc_pic.a use
200 NOSYMSORT      usr/bin/audioconvert                           # C++
201 NOSYMSORT      usr/bin/make                                # C++
202 NOSYMSORT      usr/MACH(lib)/libsun_fc\.so\.1                # C++
203 NOSYMSORT      usr/MACH(lib)/libfru\.so\.1                  # C++
204 NOSYMSORT      usr/lib/libnisdb\.so\.2                    # C++

206 # The majority of illumos deliverables should not depend on the GCC runtime
207 # (any necessary runtime symbol should be provided by libc.so, instead).
208 # However, the GNU C++ runtime requires the GCC runtime, so certain objects
209 # must be exceptions.
210 FORBIDDEN      libgcc_s\.so
211 FORBIDDEN_DEP  usr/bin/audioconvert                           # C++
212 FORBIDDEN_DEP  usr/bin/make                                # C++
213 FORBIDDEN_DEP  usr/MACH(lib)/libfru.so.1                  # C++
214 FORBIDDEN_DEP  usr/MACH(lib)/libsun_fc.so.1                # C++
215 FORBIDDEN_DEP  usr/lib/netsvc/yp/rpc.ypasswdd # C++
216 FORBIDDEN_DEP  usr/lib/netsvc/yp/ypserv   # C++
217 FORBIDDEN_DEP  usr/lib/netsvc/yp/ypxfr    # C++
218 FORBIDDEN_DEP  usr/lib/netsvc/yp/ypxfrd  # C++

220 # libfakekernel is a test environment, not intended for general use
221 FORBIDDEN libfakekernel\.so
222 FORBIDDEN_DEP  usr/MACH(lib)/libzpool.so.1
223 FORBIDDEN_DEP  usr/bin/amd64/ztest
224 FORBIDDEN_DEP  usr/bin/i86/ztest
225 FORBIDDEN_DEP  usr/bin/sparcv7/ztest
226 FORBIDDEN_DEP  usr/bin/sparcv9/ztest
227 FORBIDDEN_DEP  usr/lib/MACH(smbfs)/libfknsmb.so.1
228 FORBIDDEN_DEP  usr/lib/MACH(smbfs)/libfksmbfs.so.1
229 FORBIDDEN_DEP  usr/lib/MACH(smbsrv)/libfknsmb srv.so.1
230 FORBIDDEN_DEP  usr/lib/smbsrv/fksmbd
231 FORBIDDEN_DEP  usr/lib/smbsrv/test-msgbuf
232 FORBIDDEN_DEP  usr/lib/smbsrv/testoplock
233 FORBIDDEN_DEP  usr/sbin/amd64/zdb
234 FORBIDDEN_DEP  usr/sbin/i86/zdb
235 FORBIDDEN_DEP  usr/sbin/sparcv7/zdb
236 FORBIDDEN_DEP  usr/sbin/sparcv9/zdb

238 # libubc is intended for legacy compatibility, not general use
239 FORBIDDEN libubc\.so
240 FORBIDDEN_DEP  usr/ucb/
241 FORBIDDEN_DEP  usr/ucplib/

243 # Older versions of libraries only provided for binary compatibility
244 FORBIDDEN libm\.so\.1
245 FORBIDDEN libresolv\.so\.1
246 FORBIDDEN libxcurses\.so\.1

248 # The libprtdiag_psr.so.1 objects built under usr/src/lib/libprtdiag_psr
249 # are a family, all built using the same makefile, targeted at different
250 # sparc hardware variants. There are a small number of cases where this
251 # one size fits all approach causes an object to be linked against an
252 # unneeded library.
253 UNREF_OBJ       lib/(libdevinfo|libcfgadm)\.so\.1; .*\. of\ .*SUNW,Netra-CP2300/1

255 #
256 # the SUNWorld directory contains built versions of demos, built only to

```

```
257 # ensure their correctness.  
258 #  
259 EXEC_STACK      ^opt/SUNWosd  
260 EXEC_DATA       ^opt/SUNWosd  
261 NODIRECT        ^opt/SUNWosd  
262 #endif /* ! codereview */
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new/exception_lists/packaging
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24091 Sun Jul 14 19:11:50 2019
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34 #

36 #
37 # Exception List for validate_pkg
38 #

40 #
41 # The following entries are built in the /proto area
42 # but not included in any packages - this is intentional.
43 #
44 usr/include/auth_list.h
45 usr/include/bsm/audit_door_infco.h
46 usr/include/bsm/audit_private.h
47 usr/include/bsm/devalloc.h
48 usr/include/demangle-sys.h
49 usr/include/getxby_door.h
50 usr/include/passwdutil.h
51 usr/include/priv_utils.h
52 usr/include/rpcsvc/daemon_utils.h
53 usr/include/rpcsvc/svc_dg_priv.h
54 usr/include/security/pam_impl.h
55 usr/include/sys/clock_impl.h
56 usr/include/sys/winlockio.h
57 usr/include/scsi/plugins/ses/vendor/sun_impl.h
58 #
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new/exception_lists/packaging
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```
59 # Private lofi interface.
```

```
60 #
61 usr/include/sys/lofi_impl.h
```

```
62 #
63 # Private/Internal libraries of the Cryptographic Framework.
```

```
64 #
65 lib/libkcf.so
```

```
66 usr/include/libelfsign.h
```

```
68 #
69 # The following files are used by the DHCP service, the
70 # standalone's DHCP implementation, and the kernel (nfs_dlboot).
```

```
71 # They contain interfaces which are currently private.
72 #
73 usr/include/dhcp_symbol.h
74 usr/include/sys/sunos_dhcp_class.h
75 #
76 # Private MAC driver header files
77 #
78 usr/include/inet/iptun.h
79 usr/include/sys/aggr_impl.h
80 usr/include/sys/aggr.h
81 usr/include/sys/dld_impl.h
82 usr/include/sys/dld_ioc.h
83 usr/include/sys/dls_impl.h
84 usr/include/sys/dls.h
85 usr/include/sys/mac_client_impl.h
86 usr/include/sys/mac_client.h
87 usr/include/sys/mac_flow_impl.h
88 usr/include/sys/mac_impl.h
89 usr/include/sys/mac_soft_ring.h
90 usr/include/sys/mac_stat.h
91 #
92 # Private GLDv3 userland libraries and headers
93 #
94 usr/include/libdladm_impl.h
95 usr/include/libdiagr.h
96 usr/include/libdether.h
97 usr/include/libdlflow_impl.h
98 usr/include/libdlflow.h
99 usr/include/libdliptun.h
100 usr/include/libdlmgmt.h
101 usr/include/libdlsim.h
102 usr/include/libdlstat.h
103 usr/include/libdlvnic.h
104 usr/include/libdlwlan_impl.h
105 usr/include/libdlwlan.h
106 #
107 # Virtual Network Interface Card (VNIC)
108 #
109 usr/include/sys/vnic.h
110 usr/include/sys/vnic_impl.h
111 #
112 # Private libipadm lint library and header files
113 #
114 usr/include/ipadm_ipmgmt.h
115 usr/include/ipadm_ndpd.h
116 usr/include/libipadm.h
117 lib/libipadm.so
118 #
119 # Private libsocket header file
120 #
121 usr/include/libsocket_priv.h
122 #
123 # IKE and IPsec support library exceptions. The IKE support
124 # library contains exclusively private interfaces, as does
```

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125 # libipsecutil. My apologies for the glut of header files here.
126 #
127 usr/include/errfp.h
128 usr/include/ikedoor.h
129 usr/include/ipsec_util.h
130 usr/lib/amd64/libike.so          i386
131 usr/lib/sparcv9/libike.so       sparc
132 usr/lib/libipsecutil.so
133 usr/lib/amd64/libipsecutil.so    i386
134 usr/lib/sparcv9/libipsecutil.so  sparc
135 usr/lib/libl-like
136 usr/lib/libl-like.ln
137 usr/lib/amd64/libl-like.ln      i386
138 usr/lib/sparcv9/libl-like.ln    sparc
139 #
140 usr/include/inet/ip_impl.h
141 usr/include/inet/ip_ndp.h
142 usr/include/inet/ip2mac_impl.h
143 usr/include/inet/ip2mac.h
144 usr/include/inet/rawip_impl.h
145 usr/include/inet/tcp_impl.h
146 usr/include/inet/udp_impl.h
147 usr/include/libmail.h
148 usr/include/libwan_priv.h
149 usr/include/protocols/ripngd.h
150 usr/include/s_string.h
151 usr/include/sys/logindmux_impl.h
152 usr/include/sys/vgareg.h
153 #
154 # Some IPsec headers can't be shipped lest we hit export controls...
155 #
156 usr/include/inet/ipsec_impl.h
157 usr/include/inet/ipsec_info.h
158 usr/include/inet/ipsecah.h
159 usr/include/inet/ipsec esp.h
160 usr/include/inet/keysck.h
161 usr/include/inet/sadb.h
162 usr/include/sys/shal_consts.h
163 usr/include/sys/sha2_consts.h
164 #
165 #
166 # Filtering out directories not shipped
167 #
168 usr/4lib                  i386
169 #
170 # These files contain definitions shared privately between the kernel
171 # and libc. There is no reason for them to be part of a package that
172 # a customer should ever see. They are installed in the proto area by
173 # the uts build because libc and other components, like truss, are
174 # dependent upon their contents and should not have their own copies.
175 #
176 usr/include/sys/libc_kernel.h
177 usr/include/sys/synch32.h
178 #
179 # Private interfaces for libdisasm
180 #
181 usr/include/libdisasm.h
182 #
183 # Private interfaces for libraidcfg
184 #
185 usr/include/raidcfg_spi.h
186 usr/include/raidcfg.h
187 usr/lib/libraidcfg.so
188 usr/lib/amd64/libraidcfg.so     i386
189 usr/lib/sparcv9/libraidcfg.so   sparc
190 #

```

```

191 # This file is used for private communication between mdb, drv/kmdb, and
192 # misc/kmdb. The interfaces described herein are not intended for customer
193 # use, and are thus excluded from packaging.
194 #
195 usr/include/sys/kmdb.h
196 #
197 # These files are installed in the proto area by the build of libdhcagent
198 # and libdhcutil for the benefit of DHCP-related networking commands such
199 # as dhcpcagent, dhcpcinfo, ifconfig, and netstat. These are not interfaces
200 # for customer use, so the files are excluded from packaging.
201 #
202 lib/libdhcagent.so
203 lib/libdhcutil.so
204 lib/amd64/libdhcutil.so        i386
205 lib/sparcv9/libdhcutil.so     sparc
206 usr/include/dhcp_hostconf.h
207 usr/include/dhcp_ impl.h
208 usr/include/dhcp_inittab.h
209 usr/include/dhcp_stable.h
210 usr/include/dhcp_symbol_common.h
211 usr/include/dhcpcagent_ipc.h
212 usr/include/dhcpcagent_util.h
213 usr/include/dhcpcmsg.h
214 usr/lib/libdhcagent.so
215 usr/lib/libdhcutil.so
216 usr/lib/amd64/libdhcutil.so    i386
217 usr/lib/sparcv9/libdhcutil.so  sparc
218 #
219 # Don't ship header files private to libipmp and in_mpahd
220 #
221 usr/include/ipmp_query_impl.h
222 #
223 # These files are installed in the proto area by the build of libinetsvc,
224 # an inetd-specific library shared by inetd, inetadm and inetconv. Only
225 # the shared object is shipped.
226 #
227 usr/include/inetsvc.h
228 usr/lib/libinetsvc.so
229 #
230 # These files are installed in the proto area by the build of libinetutil,
231 # a general purpose library for the benefit of internet utilities. Only
232 # the shared object is shipped.
233 #
234 lib/libinetutil.so
235 lib/amd64/libinetutil.so       i386
236 lib/sparcv9/libinetutil.so    sparc
237 usr/include/libinetutil.h
238 usr/include/netinet/inetutil.h
239 usr/include/ofmt.h
240 usr/lib/libinetutil.so
241 usr/lib/amd64/libinetutil.so    i386
242 usr/lib/sparcv9/libinetutil.so  sparc
243 #
244 # Miscellaneous kernel interfaces or kernel<->user interfaces that are
245 # consolidation private and we do not want to export at this time.
246 #
247 usr/include/sys/cryptmod.h
248 usr/include/sys/dumpadm.h
249 usr/include/sys/ontrap.h
250 usr/include/sys/sysmsg_impl.h
251 usr/include/sys/vlan.h
252 #
253 # non-public pci header
254 #
255 usr/include/sys/pci_impl.h
256 usr/include/sys/pci_tools.h

```

```

257 #
258 # Exception list for RCM project, included by librcm and rcm_daemon
259 #
260 usr/include/librcm_event.h
261 usr/include/librcm_impl.h
262 #
263 # MDB deliverables that are not yet public
264 #
265 usr/lib/mdb/proc/mdb_test.so
266 usr/lib/mdb/proc/sparcv9/mdb_test.so      sparc
267 #
268 # SNCA project exception list
269 #
270 usr/include/inet/kssl/kssl.h
271 usr/include/inet/kssl/ksslimpl.h
272 usr/include/inet/kssl/ksslproto.h
273 usr/include/inet/nca
274 #
275 # these are "removed" from the source product build because the only
276 # packages that currently deliver them are removed.
277 # they really should't be in here.
278 #
279 etc/sfw
280 #
281 # Entries for the libmech_krb5 symlink, which has been included
282 # for build purposes only, not delivered to customers.
283 #
284 usr/include/gssapi/gssapi_krb5.h
285 usr/lib/gss/libmech_krb5.so
286 usr/lib/amd64/gss/libmech_krb5.so      i386
287 usr/lib/sparcv9/gss/libmech_krb5.so    sparc
288 usr/lib/libmech_krb5.so
289 usr/lib/amd64/libmech_krb5.so      i386
290 usr/lib/sparcv9/libmech_krb5.so    sparc
291 #
292 # Entries for headers from efcode project which user does not need to see
293 #
294 usr/platform/sun4u/include/sys/fc_plat.h      sparc
295 usr/platform/sun4u/include/sys/fcode.h        sparc
296 #
297 # Private net80211 headers
298 #
299 usr/include/sys/net80211_amrr.h
300 usr/include/sys/net80211_crypto.h
301 usr/include/sys/net80211_ht.h
302 usr/include/sys/net80211_proto.h
303 usr/include/sys/net80211.h
304 #
305 usr/include/net/wpa.h
306 #
307 # PPPoE files not delivered to customers.
308 #
309 usr/include/net/pppoe.h
310 usr/include/net/sppptun.h
311 #
312 # Simnet
313 #
314 usr/include/net/simnet.h
315 #
316 # Bridging internal data structures
317 #
318 usr/include/net/bridge_impl.h
319 #
320 # User<->kernel interface used by cfgadm/USB only
321 #
322 usr/include/sys/usb/hubd/hubd_impl.h

```

```

323 #
324 # User<->kernel interface used by cfgadm/SATA only
325 #
326 usr/include/sys/sata/sata_cfgadm.h
327 #
328 # Private ucred kernel header
329 #
330 usr/include/sys/ucred.h
331 #
332 # Private and/or platform-specific smf(5) files
333 #
334 lib/librestart.so
335 usr/include/libcontract_priv.h
336 usr/include/librestart_priv.h
337 usr/include/librestart.h
338 usr/lib/librestart.so
339 usr/lib/sparcv9/librestart.so
340 lib/svc/manifest/platform/sun4u
341 lib/svc/manifest/platform/sun4v
342 var/svc/manifest/platform/sun4u
343 var/svc/manifest/platform/sun4v
344 etc/svc/profile/platform_sun4v.xml
345 etc/svc/profile/platform_SUNW,SPARC-Enterprise.xml
346 etc/svc/profile/platform_SUNW,Sun-Fire-880.xml
347 etc/svc/profile/platform_SUNW,Sun-Fire-V890.xml
348 etc/svc/profile/platform_SUNW,Sun-Fire.xml
349 etc/svc/profile/platform_SUNW,UltraSPARC-IIe-NetraCT-40.xml
350 etc/svc/profile/platform_SUNW,UltraSPARC-IIe-NetraCT-60.xml
351 etc/svc/profile/platform_SUNW,UltraSPARC-IIi-Netract.xml
352 #
353 # Private libutil files
354 #
355 lib/libutil.so
356 usr/include/libutil_impl.h
357 usr/lib/libutil.so
358 usr/lib/sparcv9/libutil.so
359 #
360 # Private Multidata file.
361 #
362 usr/include/sys/multidata_impl.h
363 #
364 # Even though all the objects built under usr/src/stand are later glommed
365 # together into a couple of second-stage boot loaders, we dump the static
366 # archives and lint libraries into ${ROOT}/stand for intermediate use
367 # (e.g., for lint, linking the second-stage boot loaders, ...). Since
368 # these are merely intermediate objects, they do not need to be packaged.
369 #
370 stand
371 #
372 # Private KCF header files
373 #
374 usr/include/sys/crypto/elfsign.h
375 usr/include/sys/crypto/impl.h
376 usr/include/sys/crypto/ops_impl.h
377 usr/include/sys/crypto/sched_impl.h
378 #
379 # The following files are installed in the proto area
380 # by the build of libcmdutils (Command Utilities Library).
381 # libcmdutils contains interfaces which are all private interfaces.
382 #
383 lib/libcmdutils.so
384 lib/amd64/libcmdutils.so
385 lib/sparcv9/libcmdutils.so
386 usr/include/libcmdutils.h
387 usr/lib/libcmdutils.so
388 usr/lib/amd64/libcmdutils.so

```

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```

389 usr/lib/sparcv9/libcmdutils.so      sparc
390 #
391 # Private interfaces in libsec
392 #
393 usr/include/aclutils.h
394 #
395 # USB skeleton driver stays in sync with the rest of USB but doesn't ship.
396 #
397 kernel/drv/amd64/usbskel      i386
398 kernel/drv/sparcv9/usbskel      sparc
399 kernel/drv/usbskel.conf
400 #
401 # Consolidation and Sun private libdevid interfaces
402 # Public libdevid interfaces provided by devid.h
403 #
404 usr/include/sys/libdevid.h
405 #
406 # The following files are installed in the proto area by the build of
407 # mdesc driver in sun4v. These header files are used on in the build
408 # and do not need to be shipped to customers.
409 #
410 usr/include/sys/mdesc.h          sparc
411 usr/include/sys/mdesc_impl.h     sparc
412 usr/platform/sun4v/include/sys/mach_descrip.h   sparc
413 #
414 # ZFS JNI headers
415 #
416 usr/include/libzfs_jni_dataset.h
417 usr/include/libzfs_jni_disk.h
418 usr/include/libzfs_jni_diskmgt.h
419 usr/include/libzfs_jni_ipool.h
420 usr/include/libzfs_jni_main.h
421 usr/include/libzfs_jni_pool.h
422 usr/include/libzfs_jni_property.h
423 usr/include/libzfs_jni_util.h
424 #
425 # These files are installed in the proto area for Solaris scsi_vhci driver
426 # (for MPAPI support) and should not be shipped
427 #
428 usr/include/sys/scsi/adapters/mpapi_impl.h
429 usr/include/sys/scsi/adapters/mpapi_scsi_vhci.h
430 #
431 # This library is installed in the proto area by the build of libdisasm, and is
432 # only used when building the KMDB disasm module.
433 #
434 usr/lib/libstanddisasm.so
435 usr/lib/amd64/libstanddisasm.so      i386
436 usr/lib/sparcv9/libstanddisasm.so    sparc
437 #
438 # TSol: tsol doesn't ship lint source, and tsnet isn't for customers at all.
439 #
440 lib/libtsnet.so
441 #
442 # nss interfaces shared between libnsl and other ON libraries.
443 #
444 usr/include/nss.h
445 #
446 # AT&T AST (ksh93) files which are currently needed only to build OS/Net
447 # (msgcc&co.)
448 # libast
449 usr/lib/libast.so
450 usr/lib/amd64/libast.so      i386
451 usr/lib/sparcv9/libast.so    sparc
452 # libdll
453 usr/lib/libdll.so
454 usr/lib/amd64/libdll.so      i386

```

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```

455 usr/lib/sparcv9/libdll.so      sparc
456 # libpp (a helper library needed by AST's msgcc)
457 usr/lib/libpp.so
458 usr/lib/locale/C/LC_MESSAGES/libpp
459 # libshell
460 usr/lib/libshell.so
461 usr/lib/amd64/libshell.so      i386
462 usr/lib/sparcv9/libshell.so    sparc
463 # libsum
464 usr/lib/libsum.so
465 usr/lib/amd64/libsum.so      i386
466 usr/lib/sparcv9/libsum.so    sparc
467 #
468 # This file is used in ON to build DSCP clients. It is not for customers.
469 #
470 usr/include/libdscp.h         sparc
471 #
472 # These files are used by the iSCSI Target and the iSCSI Initiator
473 #
474 usr/include/sys/iscsi_protocol.h
475 usr/include/sys/iscsi_authclient.h
476 usr/include/sys/iscsi_authclientglue.h
477 #
478 # These files are used by the COMSTAR iSCSI target port provider
479 #
480 usr/include/sys/idsn
481 usr/include/sys/iscsit/chap.h
482 usr/include/sys/iscsit/iscsi_if.h
483 usr/include/sys/iscsit/isns_protocol.h
484 usr/include/sys/iscsit/radius_packet.h
485 usr/include/sys/iscsit/radius_protocol.h
486 #
487 # libshare is private and the 64-bit sharemgr is not delivered.
488 #
489 usr/lib/libshare.so
490 usr/lib/amd64/libshare.so      i386
491 usr/lib/sparcv9/libshare.so    sparc
492 usr/lib/fs/autofs/libshare_automount.so
493 usr/lib/fs/autofs/amd64/libshare_automount.so
494 usr/lib/fs/autofs/sparcv9/libshare_automount.so
495 usr/lib/fs/nfs/libshare_nfs.so
496 usr/lib/fs/nfs/amd64/libshare_nfs.so      i386
497 usr/lib/fs/nfs/sparcv9/libshare_nfs.so
498 usr/lib/fs/nfs/test_svc_tp_create
499 usr/lib/fs/smb/libshare_smb.so
500 usr/lib/fs/smb/amd64/libshare_smb.so      i386
501 usr/lib/fs/smb/sparcv9/libshare_smb.so
502 usr/lib/fs/smbfs/libshare_smbfs.so
503 usr/lib/fs/smbfs/amd64/libshare_smbfs.so
504 usr/lib/fs/smbfs/sparcv9/libshare_smbfs.so
505 usr/include/libshare_impl.h
506 usr/include/scfutil.h
507 #
508 # These files are installed in the proto area by the build of libpri for
509 # the benefit of the builds of FMA libbdm, Zeus, picld plugins, and/or
510 # other libpri consumers. However, the libpri interfaces are private to
511 # Sun (Consolidation Private) and not intended for customer use. So these
512 # files (the symlink and the lint library) are excluded from packaging.
513 #
514 usr/lib/libpri.so           sparc
515 usr/lib/sparcv9/libpri.so   sparc
516 #
517 # These files are installed in the proto area by the build of libds for
518 # the benefit of the builds of sun4v IO FMA and/or other libds
519 # consumers. However, the libds interfaces are private to Sun
520 # (Consolidation Private) and not intended for customer use. So these

```

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```

521 # files (the symlink and the lint library) are excluded from packaging.
522 #
523 usr/lib/libds.so          sparc
524 usr/lib/sparcv9/libds.so  sparc
525 usr/platform/sun4v/include/sys/libds.h sparc
526 usr/platform/sun4v/include/sys/vlds.h sparc
527 #
528 # Private/Internal u8_textprep header file. Do not ship.
529 #
530 usr/include/sys/u8_textprep_data.h
531 #
532 # SQLite is private, used by SMF (svc.configd), idmapd and libsmbsmb.
533 #
534 usr/include/sqlite-sys
535 lib/libsqlite-native.o
536 lib/libsqlite-sys.so
537 #
538 # Private/Internal kiconv header files. Do not ship.
539 #
540 usr/include/sys/kiconv_big5_utf8.h
541 usr/include/sys/kiconv_cck_common.h
542 usr/include/sys/kiconv_cp950hkscs_utf8.h
543 usr/include/sys/kiconv_emeal.h
544 usr/include/sys/kiconv_emea2.h
545 usr/include/sys/kiconv_euckr_utf8.h
546 usr/include/sys/kiconv_euctw_utf8.h
547 usr/include/sys/kiconv_gb18030_utf8.h
548 usr/include/sys/kiconv_gb2312_utf8.h
549 usr/include/sys/kiconv_hkscs_utf8.h
550 usr/include/sys/kiconv_ja_jis_to_unicode.h
551 usr/include/sys/kiconv_ja_unicode_to_jis.h
552 usr/include/sys/kiconv_ja.h
553 usr/include/sys/kiconv_ko.h
554 usr/include/sys/kiconv_latin1.h
555 usr/include/sys/kiconv_sc.h
556 usr/include/sys/kiconv_tc.h
557 usr/include/sys/kiconv_uhc_utf8.h
558 usr/include/sys/kiconv_utf8_big5.h
559 usr/include/sys/kiconv_utf8_cp950hkscs.h
560 usr/include/sys/kiconv_utf8_euckr.h
561 usr/include/sys/kiconv_utf8_euctw.h
562 usr/include/sys/kiconv_utf8_gb18030.h
563 usr/include/sys/kiconv_utf8_gb2312.h
564 usr/include/sys/kiconv_utf8_hkscs.h
565 usr/include/sys/kiconv_utf8_uhc.h
566 #
567 # At this time, the directory and its contents
568 # are only useful on sun4u systems
569 #
570 etc/flash/postdeployment      i386
571 #
572 # This header file is shared only between the power commands and
573 # ppm/srn modules # and should not be in any package
574 #
575 usr/include/sys/srn.h
576 #
577 # Private/Internal header files of smbsrv. Do not ship.
578 #
579 usr/include/smb
580 usr/include/smbsrv
581 #
582 # Private/Internal files for libfakekernel. Do not ship.
583 #
584 lib/amd64/libfakekernel.so    i386
585 lib/sparcv9/libfakekernel.so  sparc
586 lib/libfakekernel.so

```

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```

587 usr/include/libfakekernel
588 usr/lib/libfakekernel.so
589 usr/lib/amd64/libfakekernel.so          i386
590 usr/lib/sparcv9/libfakekernel.so        sparc
591 #
592 # Private/Internal libraries of smbsrv. Do not ship.
593 #
594 usr/lib/mdb/proc/libfksmbsrv.so
595 usr/lib/mdb/proc/amd64/libfksmbsrv.so   i386
596 usr/lib/mdb/proc/sparcv9/libfksmbsrv.so  sparc
597 usr/lib/mdb/proc/amd64/libmlsvc.so       i386
598 usr/lib/mdb/proc/sparcv9/libmlsvc.so     sparc
599 usr/lib/smbsrv/bind-helper
600 usr/lib/smbsrv/fksmbd
601 usr/lib/smbsrv/libfksmbsrv.so
602 usr/lib/smbsrv/libfksmbsrv.so.1
603 usr/lib/smbsrv/libmlsvc.so
604 usr/lib/smbsrv/libsmbsmb.so
605 usr/lib/smbsrv/libsmbsmbs.h
606 usr/lib/smbsrv/test-msgbuf
607 usr/lib/smbsrv/testoplock
608 #
609 #
610 # Private/Internal 64-bit libraries of smbsrv. Do not ship.
611 #
612 usr/lib/smbsrv/amd64                  i386
613 usr/lib/smbsrv/sparcv9                sparc
614 #
615 usr/lib/reparse/amd64/libreparse_smb.so i386
616 usr/lib/reparse/amd64/libreparse_smb.so.1 i386
617 usr/lib/reparse/sparcv9/libreparse_smb.so  sparc
618 usr/lib/reparse/sparcv9/libreparse_smb.so.1 sparc
619 #
620 # Private dirent, extended to include flags, for use by SMB server
621 #
622 usr/include/sys/extdirent.h
623 #
624 # Private header files for vscan service
625 #
626 usr/include/libvscan.h
627 usr/include/sys/vscan.h
628 #
629 # i86hvm is not a full platform. It is just a home for paravirtualized
630 # drivers. There is no usr/ component to this sub-platform, but the
631 # directory is created in the proto area to keep other tools happy.
632 #
633 usr/platform/i86hvm                      i386
634 #
635 # Private sdcard framework headers
636 #
637 usr/include/sys/sdcard
638 #
639 # libmlrpc is private (SMB client and server)
640 #
641 usr/include/libmlrpc
642 usr/lib/libmlrpc.so
643 usr/lib/amd64/libmlrpc.so               i386
644 usr/lib/amd64/libmlrpc.so.2             i386
645 usr/lib/sparcv9/libmlrpc.so            sparc
646 usr/lib/sparcv9/libmlrpc.so.2          sparc
647 #
648 # libsmbsmbfs is private (SMB client and server)
649 #
650 usr/include/netsmb
651 usr/lib/libsmbsmbfs.so
652 usr/lib/amd64/libsmbsmbfs.so           i386

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```

653 usr/lib/sparcv9/libsmbsmbfs.so          sparc
654 #
655 # debug & test program for smbfss (private)
656 #
657 usr/lib/fs/smbfs/chacl
658 usr/lib/fs/smbfs/lsacl
659 usr/lib/mdb/proc/libfknsmbs.so
660 usr/lib/mdb/proc/libfksmbfs.so
661 usr/lib/mdb/proc/amd64/libfknsmbs.so    i386
662 usr/lib/mdb/proc/amd64/libfksmbfs.so    i386
663 usr/lib/mdb/proc/sparcv9/libfknsmbs.so sparc
664 usr/lib/mdb/proc/sparcv9/libfksmbfs.so sparc
665 usr/lib/smbfs/amd64                   i386
666 usr/lib/smbfs/sparcv9
667 usr/lib/smbfs/fksmbcl
668 usr/lib/smbfs/libfknsmbs.so
669 usr/lib/smbfs/libfknsmbs.so.1
670 usr/lib/smbfs/libfksmbfs.so
671 usr/lib/smbfs/libfksmbfs.so.1
672 #
673 # FC related files
674 kernel/kmdb/amd64/fcip                i386
675 kernel/kmdb/sparcv9/fcip              sparc
676 kernel/kmdb/amd64/fcp                i386
677 kernel/kmdb/sparcv9/fcp              sparc
678 kernel/kmdb/amd64/fctl               i386
679 kernel/kmdb/sparcv9/fctl              sparc
680 kernel/kmdb/amd64/qlc                i386
681 kernel/kmdb/sparcv9/qlc              sparc
682 usr/include/a_state.h                sparc
683 usr/include/a5k.h                    sparc
684 usr/include/exec.h                  sparc
685 usr/include/g_scsi.h                sparc
686 usr/include/g_state.h                sparc
687 usr/include/gfc.h                   sparc
688 usr/include/l_common.h                sparc
689 usr/include/l_error.h                sparc
690 usr/include/rom.h                   sparc
691 usr/include/stgcom.h                sparc
692 usr/include/sys/fibre-channel
693 #
694 # These files are used by the iSCSI initiator only.
695 # No reason to ship them.
696 #
697 usr/include/sys/scsi/adapters/iscsi_door.h
698 usr/include/sys/scsi/adapters/iscsi_if.h
699 #
700 # sbd ioctl hdr
701 #
702 usr/include/sys/stmf_sbd_ioctl.h
703 #
704 # proxy port provider interface
705 #
706 usr/include/sys/pppt_ic_if.h
707 usr/include/sys/pppt_ioctl.h
708 #
709 # portable object file and dictionary used by libfmd_msg test
710 #
711 usr/lib/fm/dict/TEST.dict
712 usr/lib/locale/C/LC_MESSAGES/TEST.mo
713 usr/lib/locale/C/LC_MESSAGES/TEST.po
714 #
715 # Private idmap RPC protocol
716 #
717 usr/include/rpcsvc/idmap_prot.h
718 usr/include/rpcsvc/idmap_prot.x

```

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```

719 #
720 # Private idmap directory API
721 #
722 usr/include/directory.h
723 #
724 # librstp is private for bridging
725 #
726 usr/include/stp_bpdu.h
727 usr/include/stp_in.h
728 usr/include/stp_vectors.h
729 usr/lib/librstp.so
730 #
731 # Private nvfru API
732 #
733 usr/include/nvfru.h
734 #
735 # vrrp
736 #
737 usr/include/libvrrpadm.h
738 usr/lib/libvrrpadm.so
739 usr/lib/amd64/libvrrpadm.so      i386
740 usr/lib/sparcv9/libvrrpadm.so   sparc
741 #
742 # This is only used during the -t tools build
743 #
744 opt/onbld/bin/i386/mandoc      i386
745 opt/onbld/bin/sparc/mandoc    sparc
746 opt/onbld/bin/i386/makesoftcore i386
747 opt/onbld/bin/i386/vtfontcvt  i386
748 opt/onbld/bin/sparc/makesoftcore  sparc
749 opt/onbld/bin/sparc/vtfontcvt sparc
750 #
751 #
752 # Private libdwarf
753 #
754 opt/onbld/lib/i386/libdwarf.so i386
755 opt/onbld/lib/sparc/libdwarf.so sparc
756 #
757 #
758 # Private socket filter API
759 #
760 usr/include/sys/sockfilter.h
761 #
762 # We don't actually validate license action payloads, and the license
763 # staging area is provided as a separate basedir for package
764 # publication. The net result is that everything therein should be
765 # ignored for packaging validation.
766 #
767 licenses
768 #
769 # Libbe is private
770 #
771 usr/include/libbe_priv.h
772 #
773 # ipmi is at present only useful on i386, but for historical reasons is
774 # delivered on SPARC and used by the build.
775 #
776 usr/include/sys/ipmi.h  sparc
777 #
778 #
779 # libsaveargs is private
780 #
781 usr/include/saveargs.h        i386
782 usr/lib/amd64/libsaveargs.so  i386
783 usr/lib/amd64/libstandsavargs.so i386

```

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```

785 #
786 # libpcidb is private
787 #
788 usr/include/pcidb.h
789 usr/lib/amd64/libpcidb.so          i386
790 usr/lib/sparcv9/libpcidb.so        sparc
791 usr/lib/libpcidb.so

793 #
794 # private nvme header file
795 #
796 usr/include/sys/nvme.h

798 #
799 # debugging program for libadutils
800 #
801 usr/bin/test-getdc

802 #
803 # libfcl-sys is private
804 #
805 usr/include/fcllocal.h
806 usr/lib/amd64/libfcl-sys.so          i386
807 usr/lib/sparcv9/libfcl-sys.so        sparc
808 usr/lib/libfcl-sys.so

810 #
811 # libsff is private
812 #
813 usr/include/libsff.h
814 usr/lib/amd64/libsff.so          i386
815 usr/lib/sparcv9/libsff.so        sparc
816 usr/lib/libsff.so

818 #
819 # libcustr is private
820 #
821 usr/include/libcustr.h
822 lib/amd64/libcustr.so          i386
823 lib/sparcv9/libcustr.so        sparc
824 lib/libcustr.so

826 #
827 # smatch is delivered and used only with the source tree
828 #
829 opt/onbld/bin/i386/smatch      i386
830 opt/onbld/bin/sparc/smatch    sparc
831 opt/onbld/share/smatch

833 #
834 # libdwarf is private for the moment
835 #
836 lib/amd64/libdwarf.so          i386
837 lib/sparcv9/libdwarf.so        sparc
838 lib/libdwarf.so
839 usr/lib/amd64/libdwarf.so          i386
840 usr/lib/sparcv9/libdwarf.so        sparc
841 usr/lib/libdwarf.so

843 #
844 # We're not quite ready to ship ctfconvert and ctfmerge
845 #
846 usr/bin/ctfconvert
847 usr/bin/ctfmerge

849 #
850 # SPARC doesn't currently use this today, though it may in the future.

```

new/exception_lists/packaging

14

```

851 #
852 usr/include/sys/sensors.h        sparc

854 #
855 # libjedec is private
856 #
857 usr/include/libjedec.h           i386
858 usr/lib/amd64/libjedec.so       i386
859 usr/lib/sparcv9/libjedec.so     sparc
860 usr/lib/libjedec.so

862 #
863 # the tools copy of the link-editor is not delivered
864 #
865 opt/onbld/bin/i386/ld          i386
866 opt/onbld/bin/sparc/ld        sparc
867 opt/onbld/bin/i386/sgsmsg     i386
868 opt/onbld/bin/sparc/sgsmsg    sparc
869 opt/onbld/lib/i386/libelf.so   i386
870 opt/onbld/lib/i386/libelf.so.1 i386
871 opt/onbld/lib/i386/libld.so    i386
872 opt/onbld/lib/i386/libld.so.4  i386
873 opt/onbld/lib/i386/liblddb.so  i386
874 opt/onbld/lib/i386/liblddb.so.4 i386
875 opt/onbld/lib/sparc/libelf.so  sparc
876 opt/onbld/lib/sparc/libelf.so.1 sparc
877 opt/onbld/lib/sparc/libld.so   sparc
878 opt/onbld/lib/sparc/libld.so.4 sparc
879 opt/onbld/lib/sparc/liblddb.so sparc
880 opt/onbld/lib/sparc/liblddb.so.4 sparc
881 opt/onbld/man/man1onbld/sgsmsg.1onbld

883 #
884 # The built link-editor demos are not delivered
885 #
886 opt/SUNWwlnd/
887 #endif /* ! codereview */

```

```
*****
38344 Sun Jul 14 19:11:51 2019
new/usr/src/Makefile.master
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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").
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 24 # Copyright (c) 2012 by Delphix. All rights reserved.
 25 # Copyright 2014 Garrett D'Amore <garrett@damore.org>
 26 # Copyright 2015, OmniTI Computer Consulting, Inc. All rights reserved.
 27 # Copyright 2015 Gary Mills
 28 # Copyright 2015 Igor Kozhukhov <ikozhukhov@gmail.com>
 29 # Copyright 2016 Toomas Soome <tsoome@me.com>
 30 # Copyright 2018 OmniOS Community Edition (OmniOSce) Association.
 31 # Copyright 2019, Joyent, Inc.
 32 #
 34 #
 35 # Makefile.master, global definitions for system source
 36 #
 37 ROOT= /proto
 39 #
 40 # Adjunct root, containing an additional proto area to be used for headers
 41 # and libraries.
 42 #
 43 ADJUNCT_PROTO=
 45 #
 46 # Adjunct for building things that run on the build machine.
 47 #
 48 NATIVE_ADJUNCT= /usr
 50 #
 51 # RELEASE_BUILD should be cleared for final release builds.
 52 # NOT_RELEASE_BUILD is exactly what the name implies.
 53 #
 54 # __GNUC toggles the building of ON components using gcc and related tools.
 55 # Normally set to '#', set it to '' to do gcc build.
 56 #
 57 # The declaration POUND_SIGN is always '#'. This is needed to get around the
 58 # make feature that '#' is always a comment delimiter, even when escaped or

```
59 # quoted. We use this macro expansion method to get POUND_SIGN rather than
60 # always breaking out a shell because the general case can cause a noticeable
61 # slowdown in build times when so many Makefiles include Makefile.master.
62 #
63 # While the majority of users are expected to override the setting below
64 # with an env file (via nightly or bldenv), if you aren't building that way
65 # (ie, you're using "ws" or some other bootstrapping method) then you need
66 # this definition in order to avoid the subshell invocation mentioned above.
67 #  

 69 PRE_POUND=                                     pre\#
 70 POUND_SIGN=                                     $(PRE_POUND:pre\%=%)  

 72 NOT_RELEASE_BUILD=                            $(POUND_SIGN)
 73 RELEASE_BUILD=                               $(POUND_SIGN)
 74 $(RELEASE_BUILD)NOT_RELEASE_BUILD=           $(POUND_SIGN)
 75 PATCH_BUILD=                                $(POUND_SIGN)  

 77 # SPARC_BLD is '#' for an Intel build.
 78 # INTEL_BLD is '#' for a Sparc build.
 79 SPARC_BLD_1=        $(MACH:i386=$(POUND_SIGN))
 80 SPARC_BLD=          $(SPARC_BLD_1:sparc=)
 81 INTEL_BLD_1=       $(MACH:sparc=$(POUND_SIGN))
 82 INTEL_BLD=         $(INTEL_BLD_1:i386=)  

 84 # The variables below control the compilers used during the build.
 85 # There are a number of permutations.
 86 #
 87 # __GNUC and __SUNC control (and indicate) the primary compiler. Whichever
 88 # one is not POUND_SIGN is the primary, with the other as the shadow. They
 89 # may also be used to control entirely compiler-specific Makefile assignments.
 90 # __GNUC and GCC are the default.
 91 #
 92 # __GNUC64 indicates that the 64bit build should use the GNU C compiler.
 93 # There is no Sun C analogue.
 94 #
 95 # The following version-specific options are operative regardless of which
 96 # compiler is primary, and control the versions of the given compilers to be
 97 # used. They also allow compiler-version specific Makefile fragments.
 98 #  

 100 __SUNC=                                         $(POUND_SIGN)
 101 $(__SUNC)__GNUC=                           $(POUND_SIGN)
 102 __GNUC64=                                    $(__GNUC)  

 104 # Allow build-time "configuration" to enable or disable some things.
 105 # The default is POUND_SIGN, meaning "not enabled". If the environment
 106 # passes in an override like ENABLE_SMB_PRINTING= (empty) that will
 107 # uncomment things in the lower Makefiles to enable the feature.
 108 ENABLE_SMB_PRINTING=                         $(POUND_SIGN)  

 110 # CLOSED is the root of the tree that contains source which isn't released
 111 # as open source
 112 CLOSED=                                         $(SRC)/.../closed  

 114 # BUILD_TOOLS is the root of all tools including compilers.
 115 # ONBLD_TOOLS is the root of all the tools that are part of SUNWonbld.
 117 BUILD_TOOLS=                                 /ws/onnv-tools
 118 ONBLD_TOOLS=                                $(BUILD_TOOLS)/onbld  

 120 # define runtime JAVA_HOME, primarily for cmd/pools/poold
 121 JAVA_HOME=                                    /usr/java
 122 # define buildtime JAVA_ROOT
 123 JAVA_ROOT=                                    /usr/java
 124 # Build uses java7 by default. Pass one the variables below set to empty
```

```

125 # string in the environment to override.
126 BLD_JAVA_6=      $(POUND_SIGN)
127 BLD_JAVA_8=      $(POUND_SIGN)

129 GNCU_ROOT=      /usr/gcc/7
130 GCCLIBDIR=      $(GNCU_ROOT)/lib
131 GCCLIBDIR64=    $(GNCU_ROOT)/lib/$(MACH64)

133 DOCBOOK_XSL_ROOT=   /usr/share/sgml/docbook/xsl-stylesheets

135 RPCGEN=          /usr/bin/rpcgen
136 STABS=           $(ONBLD_TOOLS)/bin/$(MACH)/stabs
137 ELFEXTRACT=     $(ONBLD_TOOLS)/bin/$(MACH)/elfextract
138 MBH_PATCH=       $(ONBLD_TOOLS)/bin/$(MACH)/mbh_patch
139 BTXLD=          $(ONBLD_TOOLS)/bin/$(MACH)/btxl
140 VTFONTCVT=      $(ONBLD_TOOLS)/bin/$(MACH)/vtfontcvt
141 # echo(1) and true(1) are specified without absolute paths, so that the shell
142 # spawned by make(1) may use the built-in versions. This is minimally
143 # problematic, as the shell spawned by make(1) is known and under control, the
144 # only risk being if the shell falls back to $PATH.
145 #
146 # We specifically want an echo(1) that does interpolation of escape sequences,
147 # which ksh93, /bin/sh, and bash will all provide.
148 ECHO=             echo
149 TRUE=            true
150 INS=             $(ONBLD_TOOLS)/bin/$(MACH)/install
151 SYMLINK=         /usr/bin/ln -s
152 LN=              /usr/bin/ln
153 MKDIR=          /usr/bin/mkdir
154 CHMOD=          /usr/bin/chmod
155 MV=              /usr/bin/mv -f
156 RM=              /usr/bin/rm -f
157 CUT=             /usr/bin/cut
158 NM=              /usr/ccs/bin/nm
159 DIFF=            /usr/bin/diff
160 GREP=            /usr/bin/grep
161 EGREP=           /usr/bin/egrep
162 ELFWRAP=         /usr/bin/elfwrap
163 KSH93=           /usr/bin/ksh93
164 SED=             /usr/bin/sed
165 AWK=             /usr/bin/nawk
166 CP=              /usr/bin/cp -f
167 MCS=             /usr/ccs/bin/mcs
168 CAT=             /usr/bin/cat
169 ELFDUMP=         /usr/ccs/bin/elfdump
170 M4=              /usr/bin/m4
171 GM4=             /usr/bin/gm4
172 STRIP=           /usr/ccs/bin/strip
173 LEX=             /usr/ccs/bin/lex
174 FLEX=            /usr/bin/flex
175 YACC=            /usr/ccs/bin/yacc
176 BISON=           /usr/bin/bison
177 CPP=             /usr/lib/cpp
178 ANSI_CPP=        $(GNCU_ROOT)/bin/cpp
179 JAVAC=            $(JAVA_ROOT)/bin/javac
180 JAVAH=           $(JAVA_ROOT)/bin/javah
181 JAVADOC=          $(JAVA_ROOT)/bin/javadoc
182 RMIC=            $(JAVA_ROOT)/bin/rmic
183 JAR=              $(JAVA_ROOT)/bin/jar
184 CTFCONVERT=      $(ONBLD_TOOLS)/bin/$(MACH)/ctfconvert
185 CTFDIFF=          $(ONBLD_TOOLS)/bin/$(MACH)/ctfdiff
186 CTFMERGE=         $(ONBLD_TOOLS)/bin/$(MACH)/ctfmerge
187 CTFSTABS=         $(ONBLD_TOOLS)/bin/$(MACH)/ctfstabs
188 CTFSTRIP=         $(ONBLD_TOOLS)/bin/$(MACH)/ctfstrip
189 NDRGEN=           $(ONBLD_TOOLS)/bin/$(MACH)/ndrgen
190 GENOFFSETS=      $(ONBLD_TOOLS)/bin/genoffsets

```

```

191 XREF=           $(ONBLD_TOOLS)/bin/xref
192 FIND=            /usr/bin/find
193 PERL=            /usr/bin/perl
194 PERL_VERSION=    5.10.0
195 PERL_PKGVERS=   -510
196 PERL_ARCH=       i86pc-solaris-64int
197 $(SPARC_BLD)PERL_ARCH = sun4-solaris-64int
198 PYTHON_VERSION=  2.7
199 PYTHON_PKGVERS= -27
200 PYTHON_SUFFIX=
201 PYTHON=          /usr/bin/python$(PYTHON_VERSION)
202 PYTHON3_VERSION= 3.5
203 PYTHON3_PKGVERS= -35
204 PYTHON3_SUFFIX=  m
205 PYTHON3=          /usr/bin/python$(PYTHON3_VERSION)
206 $(BUILD_PY3TOOLS)TOOLS_PYTHON= $(PYTHON3)
207 $(BUILD_PY2TOOLS)TOOLS_PYTHON= $(PYTHON)
208 SORT=            /usr/bin/sort
209 TR=              /usr/bin/tr
210 TOUCH=           /usr/bin/touch
211 WC=              /usr/bin/wc
212 XARGS=           /usr/bin/xargs
213 ELFEDIT=         /usr/bin/elfedit
214 DTRACE=          /usr/sbin/dtrace -xolib
215 UNIQ=            /usr/bin/uniq
216 TAR=             /usr/bin/tar
217 ASTBINDIR=       /usr/ast/bin
218 MSGCC=           $(ASTBINDIR)/msgcc
219 MSGFMT=          /usr/bin/msgfmt -s
220 LCDEF=           $(ONBLD_TOOLS)/bin/$(MACH)/lcdef
221 TIC=              $(ONBLD_TOOLS)/bin/$(MACH)/tic
222 ZIC=              $(ONBLD_TOOLS)/bin/$(MACH)/zic
223 OPENSSL=          /usr/bin/openssl
224 CPCGEN=          $(ONBLD_TOOLS)/bin/$(MACH)/cpcgen
225
226 DEFAULT_CONSOLE_COLOR=
227   -DDEFAULT_ANSI_FOREGROUND=ANSI_COLOR_WHITE \
228   -DDEFAULT_ANSI_BACKGROUND=ANSI_COLOR_BLACK \
229
230 FILEMODE=         644
231 DIRMODE=          755
232
233 # Declare that nothing should be built in parallel.
234 # Individual Makefiles can use the .PARALLEL target to declare otherwise.
235 NO_PARALLEL:
236
237 # For stylistic checks
238 #
239 # Note that the X and C checks are not used at this time and may need
240 # modification when they are actually used.
241 #
242 CSTYLE=           $(ONBLD_TOOLS)/bin/cstyle
243 CSTYLE_TAIL=
244 HDRCHK=           $(ONBLD_TOOLS)/bin/hdrchk
245 HDRCHK_TAIL=
246 JSTYLE=           $(ONBLD_TOOLS)/bin/jstyle
247
248 DOT_H_CHECK=      \
249   @$(ECHO) "checking $<; $(CSTYLE) $< $(CSTYLE_TAIL); \
250   $(HDRCHK) $< $(HDRCHK_TAIL)"
251
252 DOT_X_CHECK=      \
253   @$(ECHO) "checking $<; $(RPCGEN) -C -h $< | $(CSTYLE) $(CSTYLE_TAIL); \
254   $(RPCGEN) -C -h $< | $(HDRCHK) $< $(HDRCHK_TAIL)"
255
256 DOT_C_CHECK=      \

```

```

257      @$(ECHO) "checking $<"; $(CSTYLE) $< $(CSTYLE_TAIL)
259 MANIFEST_CHECK= \
260     @$(ECHO) "checking $<"; \
261     SVCCFG_DTD=$(SRC)/cmd/svc/dtd/service_bundle.dtd.1 \
262     SVCCFG_REPOSITORY=$(SRC)/cmd/svc/seed/global.db \
263     SVCCFG_CONFIGD_PATH=$(SRC)/cmd/svc/configd/svc.configd-native \
264     $(SRC)/cmd/svc/svccfg/svccfg-native validate $<
266 INS.file=      $(RM) $@; $(INS) -s -m $(FILEMODE) -f $(@D) $<
267 INS.dir=       $(INS) -s -d -m $(DIRMODE) $@
268 # installs and renames at once
269 #
270 INS.rename=    $(INS.file); $(MV) $(@D)/$(<F) $@
272 # install a link
273 INSLINKTARGET= $<
274 INS.link=      $(RM) $@; $(LN) $(INSLINKTARGET) $@
275 INS.symlink=   $(RM) $@; $(SYMLINK) $(INSLINKTARGET) $@
277 # The path to python that will be used for the shebang line when installing
278 # python scripts to the proto area. This is overridden by makefiles to
279 # select to the correct version.
280 PYSHEBANG=     $(PYTHON)
282 #
283 # Python bakes the mtime of the .py file into the compiled .pyc and
284 # rebuilds if the baked-in mtime != the mtime of the source file
285 # (rather than only if it's less than), thus when installing python
286 # files we must make certain to not adjust the mtime of the source
287 # (.py) file.
288 #
289 INS.pyfile=    $(RM) $@; $(SED) \
290     -e "ls:^#@!PYTHON@:#!$(PYSHEBANG):" \
291     -e "ls:^#@!TOOLS_PYTHON@:#!$(TOOLS_PYTHON):" \
292     < $< > $@; $(CHMOD) $(FILEMODE) $@; $(TOUCH) -r $< $@
294 # MACH must be set in the shell environment per uname -p on the build host
295 # More specific architecture variables should be set in lower makefiles.
296 #
297 # MACH64 is derived from MACH, and BUILD64 is set to '#' for
298 # architectures on which we do not build 64-bit versions.
299 # (There are no such architectures at the moment.)
300 #
301 # Set BUILD64=# in the environment to disable 64-bit amd64
302 # builds on i386 machines.
304 MACH64_1=      $(MACH:sparc=sparcv9)
305 MACH64=        $(MACH64_1:i386=amd64)
307 MACH32_1=      $(MACH:sparc=sparcv7)
308 MACH32=        $(MACH32_1:i386=i86)
310 sparc_BUILD64=
311 i386_BUILD64=
312 BUILD64=       $($(@) _BUILD64)
314 #
315 # C compiler mode. Future compilers may change the default on us,
316 # so force extended ANSI mode globally. Lower level makefiles can
317 # override this by setting CCMODE.
318 #
319 CCMODE=        -Xa
320 CCMODE64=      -Xa
322 #

```

```

323 # C compiler verbose mode. This is so we can enable it globally,
324 # but turn it off in the lower level makefiles of things we cannot
325 # (or aren't going to) fix.
326 #
327 CCVERBOSE=          -v
329 # set this to the secret flag "-Wc,-Qiselect-v9abiwarn=1" to get warnings
330 # from the compiler about places the -xarch=v9 may differ from -xarch=v9c.
331 V9ABIWARN=
333 # set this to the secret flag "-Wc,-Qiselect-regsym=0" to disable register
334 # symbols (used to detect conflicts between objects that use global registers)
335 # we disable this now for safety, and because genunix doesn't link with
336 # this feature (the v9 default) enabled.
337 #
338 # REGSYM is separate since the C++ driver syntax is different.
339 CCREGSYM=           -Wc,-Qiselect-regsym=0
340 CCCREGSYM=          -Qoption cg -Qiselect-regsym=0
342 # Prevent the removal of static symbols by the SPARC code generator (cg).
343 # The x86 code generator (ube) does not remove such symbols and as such
344 # using this workaround is not applicable for x86.
345 #
346 CCSTATICSYM=         -Wc,-Qassembler-ounrefsym=0
347 #
348 # generate 32-bit addresses in the v9 kernel. Saves memory.
349 CCABS32=             -Wc,-xcode=abs32
350 #
351 # generate v9 code which tolerates callers using the v7 ABI, for the sake of
352 # system calls.
353 CC32BITCALLERS=      -gcc=-massume-32bit-callers
355 # GCC, especially, is increasingly beginning to auto-inline functions and
356 # sadly does so separately not under the general -fno-inline-functions
357 # Additionally, we wish to prevent optimisations which cause GCC to clone
358 # functions -- in particular, these may cause unhelpful symbols to be
359 # emitted instead of function names
360 CCNOAUTOUNLINE= \
361     -_gcc=-fno-inline-small-functions \
362     -_gcc=-fno-inline-functions-called-once \
363     -_gcc=-fno-ipa-cp \
364     -_gcc7=-fno-ipa-icf \
365     -_gcc8=-fno-ipa-icf \
366     -_gcc7=-fno-clone-functions \
367     -_gcc8=-fno-clone-functions
369 # GCC may put functions in different named sub-sections of .text based on
370 # their presumed calling frequency. At least in the kernel, where we actually
371 # deliver relocatable objects, we don't want this to happen.
372 #
373 # Since at present we don't benefit from this even in userland, we disable it gl
374 # but the application of this may move into usr/src/uts/ in future.
375 CCNOREORDER= \
376     -_gcc7=-fno-reorder-functions \
377     -_gcc8=-fno-reorder-functions
379 #
380 # gcc has a rather aggressive optimization on by default that infers loop
381 # bounds based on undefined behavior (!!). This can lead to some VERY
382 # surprising optimizations -- ones that may be technically correct in the
383 # strictest sense but also result in incorrect program behavior. We turn
384 # this optimization off, with extreme prejudice.
385 #
386 CCNOAGGRESSIVELOOPS= \
387     -_gcc7=-fno-aggressive-loop-optimizations \
388     -_gcc8=-fno-aggressive-loop-optimizations

```

```

390 # One optimization the compiler might perform is to turn this:
391 #     #pragma weak foo
392 #     extern int foo;
393 #     if (&foo)
394 #         foo = 5;
395 #     into
396 #         foo = 5;
397 # Since we do some of this (foo might be referenced in common kernel code
398 # but provided only for some cpu modules or platforms), we disable this
399 # optimization.
400 #
401 sparc_CCUNBOUND = -Wd,-xsafe=unboundsym
402 i386_CCUNBOUND =
403 CCUNBOUND      = $($($(MACH)_CCUNBOUND)

405 #
406 # compiler '-xarch' flag. This is here to centralize it and make it
407 # overridable for testing.
408 sparc_XARCH=   -m32
409 sparcv9_XARCH= -m64
410 i386_XARCH=   -m32
411 amd64_XARCH=  -m64 -Ui386 -U_i386

413 # assembler '-xarch' flag. Different from compiler '-xarch' flag.
414 sparc_AS_XARCH= -xarch=v8plus
415 sparcv9_AS_XARCH= -xarch=v9
416 i386_AS_XARCH=
417 amd64_AS_XARCH= -xarch=amd64 -P -Ui386 -U_i386

419 #
420 # These flags define what we need to be 'standalone' i.e. -not- part
421 # of the rather more cosy userland environment. This basically means
422 # the kernel.
423 #
424 # XX64 future versions of gcc will make -mcmodel=kernel imply -mno-red-zone
425 #
426 sparc_STAND_FLAGS= -_gcc=-ffreestanding
427 sparcv9_STAND_FLAGS= -_gcc=-ffreestanding
428 # Disabling MMX also disables 3DNow, disabling SSE also disables all later
429 # additions to SSE (SSE2, AVX ,etc.)
430 NO SIMD=        -_gcc=-mno-mmx -_gcc=-mno-sse
431 i386_STAND_FLAGS= -_gcc=-ffreestanding $(NO SIMD)
432 amd64_STAND_FLAGS= -xmodel=kernel $(NO SIMD)

434 SAVEARGS=       -Wu,-save_args
435 amd64_STAND_FLAGS+= $(SAVEARGS)

437 STAND_FLAGS_32 = $($($(MACH)_STAND_FLAGS)
438 STAND_FLAGS_64 = $($($MACH64)_STAND_FLAGS)

440 #
441 # disable the incremental linker
442 ILDOFF=          -xildoff
443 #
444 XFFLAG=          -xF=%all
445 XESS=            -xs
446 XSTRCONST=       -xstrconst

448 #
449 # turn warnings into errors (C)
450 CERRWARN = -errtags=yes -errwarn=%all
451 CERRWARN += -erroff=E_EMPTY_TRANSLATION_UNIT
452 CERRWARN += -erroff=E_STATEMENT_NOT_REACHED

454 CERRWARN += -_gcc=-Wno-missing-braces

```

```

455 CERRWARN += -_gcc=-Wno-sign-compare
456 CERRWARN += -_gcc=-Wno-unknown-pragmas
457 CERRWARN += -_gcc=-Wno-unused-parameter
458 CERRWARN += -_gcc=-Wno-missing-field-initializers

460 # Unfortunately, this option can misfire very easily and unfixably.
461 CERRWARN += -_gcc=-Wno-array-bounds

464 CERRWARN += -_smatch=-p=illumos_user
465 include $(SRC)/Makefile.smatch

467 #
468 # turn warnings into errors (C++)
469 CCERRWARN=           -xwe

471 # C standard. Keep Studio flags until we get rid of lint.
472 CSTD_GNU89=          -xc99=%none
473 CSTD_GNU99=          -xc99=%all
474 CSTD=                $(CSTD_GNU89)
475 C99LMODE=            $(CSTD:-xc99%=-Xc99%)

477 # In most places, assignments to these macros should be appended with +=
478 # (CPPFLAGS.first allows values to be prepended to CPPFLAGS).
479 sparc_CFLAGS=          $(sparc_XARCH) $(CCSTATICSYM)
480 sparcv9_CFLAGS=        $(sparcv9_XARCH) -dalign $(CCVERBOSE) $(V9ABIWARN) $(CCREGSYM) \
481                 $(CCSTATICSYM)
482 i386_CFLAGS=          $(i386_XARCH)
483 amd64_CFLAGS=          $(amd64_XARCH)

485 sparc_ASFLAGS=         $(sparc_AS_XARCH)
486 sparcv9_ASFLAGS=       $(sparcv9_AS_XARCH)
487 i386_ASFLAGS=          $(i386_AS_XARCH)
488 amd64_ASFLAGS=         $(amd64_AS_XARCH)

490 #
491 sparc_COPTFLAG=        -xO3
492 sparcv9_COPTFLAG=     -xO3
493 i386_COPTFLAG=        -O
494 amd64_COPTFLAG=       -xO3

496 COPTFLAG=              $($($(MACH)_COPTFLAG)
497 COPTFLAG64=             $($($MACH64)_COPTFLAG)

499 # When -g is used, the compiler globalizes static objects
500 # (gives them a unique prefix). Disable that.
501 CNOGLOBAL= -W0,-noglobal

503 # Direct the Sun Studio compiler to use a static globalization prefix based on t
504 # name of the module rather than something unique. Otherwise, objects
505 # will not build deterministically, as subsequent compilations of identical
506 # source will yield objects that always look different.
507 #
508 # In the same spirit, this will also remove the date from the N_OPT stab.
509 CGLOBALSTATIC= -W0,-xglobalstatic

511 # Sometimes we want all symbols and types in debugging information even
512 # if they aren't used.
513 CALLSYMS=               -W0,-xdbggen=no%usedonly

515 #
516 # We force the compilers to generate the debugging information best understood
517 # by the CTF tools. With Sun Studio this is stabs due to bugs in the Studio
518 # compilers. With GCC this is DWARF v2.
519 #

520 DEBUGFORMAT=            -_cc=-xdebugformat=stabs -_gcc=-gdwarf-2

```

```

522 #
523 # Ask the compiler to include debugging information
524 #
525 CCGDEBUG= -g $(DEBUGFORMAT)

527 #
528 # Flags used to build in debug mode for ctf generation.
529 #
530 CTF_FLAGS_sparc = $(CCGDEBUG) -Wc,-Qiselect-T1 $(CSTD) $(CNOGLOBAL)
531 CTF_FLAGS_i386 = $(CCGDEBUG) $(CSTD) $(CNOGLOBAL)

533 CTF_FLAGS_sparcv9 = $(CTF_FLAGS_sparc)
534 CTF_FLAGS_amd64 = $(CTF_FLAGS_i386)

536 # Sun Studio produces broken userland code when saving arguments.
537 $(__GNUC)CTF_FLAGS_amd64 += $(SAVEARGS)

539 CTF_FLAGS_32 = $(CTF_FLAGS_$(MACH))
540 CTF_FLAGS_64 = $(CTF_FLAGS_$(MACH64))
541 CTF_FLAGS = $(CTF_FLAGS_32)

543 #
544 # Flags used with genoffsets
545 #
546 GENOFFSETS_FLAGS = $(CALLSYMS)

548 OFFSETS_CREATE = $(GENOFFSETS) -s $(CTFSTABS) -r $(CTFCONVERT) \
549     $(CW) --noecho $(CW_CC_COMPILER) -- $(GENOFFSETS_FLAGS) \
550     $(CFLAGS) $(CPPFLAGS)

552 OFFSETS_CREATE64 = $(GENOFFSETS) -s $(CTFSTABS) -r $(CTFCONVERT) \
553     $(CW) --noecho $(CW_CC_COMPILER) -- $(GENOFFSETS_FLAGS) \
554     $(CFLAGS64) $(CPPFLAGS)

556 #
557 # tradeoff time for space (smaller is better)
558 #
559 sparc_SPACEFLAG = -xspace -W0,-Lt
560 sparcv9_SPACEFLAG = -xspace -W0,-Lt
561 i386_SPACEFLAG = -xspace
562 amd64_SPACEFLAG =

564 SPACEFLAG = $($($MACH)_SPACEFLAG)
565 SPACEFLAG64 = $($($MACH64)_SPACEFLAG)

567 #
568 # The Sun Studio 11 compiler has changed the behaviour of integer
569 # wrap arounds and so a flag is needed to use the legacy behaviour
570 # (without this flag panics/hangs could be exposed within the source).
571 #
572 sparc_IROPTFLAG = -W2,-xwrap_int
573 sparcv9_IROPTFLAG = -W2,-xwrap_int
574 i386_IROPTFLAG =
575 amd64_IROPTFLAG =

577 IROPTFLAG = $($($MACH)_IROPTFLAG)
578 IROPTFLAG64 = $($($MACH64)_IROPTFLAG)

580 sparc_XREGSFLAG = -xregs=no%appl
581 sparcv9_XREGSFLAG = -xregs=no%appl
582 i386_XREGSFLAG =
583 amd64_XREGSFLAG =

585 XREGSFLAG = $($($MACH)_XREGSFLAG)
586 XREGSFLAG64 = $($($MACH64)_XREGSFLAG)

```

```

588 # dmake SOURCEDEBUG=yes ... enables source-level debugging information, and
589 # avoids stripping it.
590 SOURCEDEBUG = $(POUND_SIGN)
591 SRCDBGBLD = $(SOURCEDEBUG:yes=)

593 #
594 # These variables are intended ONLY for use by developers to safely pass extra
595 # flags to the compilers without unintentionally overriding Makefile-set
596 # flags. They should NEVER be set to any value in a Makefile.
597 #
598 # They come last in the associated FLAGS variable such that they can
599 # explicitly override things if necessary, there are gaps in this, but it's
600 # the best we can manage.
601 #
602 CUSERFLAGS =
603 CUSERFLAGS64 =
604 CCUSERFLAGS =
605 CCUSERFLAGS64 =

607 CSOURCEDEBUGFLAGS =
608 CCSOURCEDEBUGFLAGS =
609 $(SRCDBGBLD)CSOURCEDEBUGFLAGS = $(CCGDEBUG) -xs
610 $(SRCDBGBLD)CCSOURCEDEBUGFLAGS = $(CCGDEBUG) -xs

612 CFLAGS= $(COPTFLAG) $($($MACH)_CFLAGS) $(SPACEFLAG) $(CCMODE) \
613     $(ILDOFF) $(CERRWARN) $(CSTD) $(CCUNBOUND) $(IROPTFLAG) \
614     $(CGLOBALSTATIC) $(CCNOAUTOINLINE) $(CCNOREORDER) \
615     $(CCNOAGGRESSIVELOOPS) \
616     $(CSOURCEDEBUGFLAGS) $(CUSERFLAGS)
617 CFLAGS64= $(COPTFLAG64) $($($MACH64)_CFLAGS) $(SPACEFLAG64) $(CCMODE64) \
618     $(ILDOFF) $(CERRWARN) $(CSTD) $(CCUNBOUND) $(IROPTFLAG64) \
619     $(CGLOBALSTATIC) $(CCNOAUTOINLINE) $(CCNOREORDER) \
620     $(CCNOAGGRESSIVELOOPS) \
621     $(CSOURCEDEBUGFLAGS) $(CUSERFLAGS64)

622 #
623 # Flags that are used to build parts of the code that are subsequently
624 # run on the build machine (also known as the NATIVE_BUILD).
625 #
626 NATIVE_CFLAGS= $(COPTFLAG) $($($NATIVE_MACH)_CFLAGS) $(CCMODE) \
627     $(ILDOFF) $(CERRWARN) $(CSTD) $($($NATIVE_MACH)_CCUNBOUND) \
628     $(IROPTFLAG) $(CGLOBALSTATIC) $(CCNOAUTOINLINE) \
629     $(CCNOREORDER) $(CSOURCEDEBUGFLAGS) $(CUSERFLAGS)

631 DTEXTDOM=-DTEXT_DOMAIN=\\"$(TEXT_DOMAIN)\\"
632 DTS_ERRNO=-D_TS_ERRNO
633 CPPFLAGS.first= # Please keep empty. Only lower makefiles should set this.
634 CPPFLAGS.master=$(DTEXTDOM) $(DTS_ERRNO) \
635     $(ENVCPPFLAGS1) $(ENVCPPFLAGS2) $(ENVCPPFLAGS3) $(ENVCPPFLAGS4) \
636     $(ADJUNCT_PROTO:%%=-I%}/usr/include)
637 CPPFLAGS.native=$(ENVCPPFLAGS1) $(ENVCPPFLAGS2) $(ENVCPPFLAGS3) \
638     $(ENVCPPFLAGS4) -I$(NATIVE_ADJUNCT)/include
639 CPPFLAGS= $(CPPFLAGS.first) $(CPPFLAGS.master)
640 AS_CPPFLAGS= $(CPPFLAGS.first) $(CPPFLAGS.master)
641 JAVAFLAGS= -source 1.6 -target 1.6 -Xlint:deprecation,-options

643 #
644 # For source message catalogue
645 #
646 .SUFFIXES: $(SUFFIXES) .i .po
647 MSGROOT= $(ROOT)/catalog
648 MSGDOMAIN= $(MSGROOT)/$(TEXT_DOMAIN)
649 MSGDOMAININFOFILE = $(MSGDOMAIN)/$(POFILE)
650 DCMSGDOMAIN= $(MSGROOT)/LC_TIME/$(TEXT_DOMAIN)
651 DCMSGDOMAININFOFILE = $(DCMSGDOMAIN)/$(DCFILE:.dc=.po)

```

```

653 CLOBBERFILES += $(POFILE) $(POFILES)
654 COMPILE.cpp= $(CC) -E -C $(CFLAGS) $(CPPFLAGS)
655 XGETTEXT= /usr/bin/xgettext
656 XGETFLAGS= -c TRANSLATION_NOTE
657 GNUXGETTEXT= /usr/gnu/bin/xgettext
658 GNUXGETFLAGS= --add-comments=TRANSLATION_NOTE --keyword=_ \
659   --strict --no-location --omit-header
660 BUILD.po= $(XGETTEXT) $(XGETFLAGS) -d $(<F) $<.i ;\
661   $(RM) $@ ;\
662   $(SED) "/^domain/d" < $(<F).po > $@ ;\
663   $(RM) $(<F).po $<.i

665 #
666 # This is overwritten by local Makefile when PROG is a list.
667 #
668 POFILE= $(PROG).po

670 sparc_CCFLAGS= -cg92 -compat=4 \
671   -Qoption ccfe -messages=no%anachronism \
672   $(CCERWARN)
673 sparcv9_CCFLAGS= $(sparcv9_XARCH) -dalign -compat=5 \
674   -Qoption ccfe -messages=no%anachronism \
675   -Qoption ccfe -features=no%conststrings \
676   $(CCCREGSYM) \
677   $(CCERWARN)
678 i386_CCFLAGS= -compat=4 \
679   -Qoption ccfe -messages=no%anachronism \
680   -Qoption ccfe -features=no%conststrings \
681   $(CCERWARN)
682 amd64_CCFLAGS= $(amd64_XARCH) -compat=5 \
683   -Qoption ccfe -messages=no%anachronism \
684   -Qoption ccfe -features=no%conststrings \
685   $(CCERWARN)

687 sparc_CCOPTFLAG= -O
688 sparcv9_CCOPTFLAG= -O
689 i386_CCOPTFLAG= -O
690 amd64_CCOPTFLAG= -O

692 CCOPTFLAG= $( $(MACH)_CCOPTFLAG )
693 CCOPTFLAG64= $( $(MACH64)_CCOPTFLAG )
694 CCFLAGS= $(CCOPTFLAG) $( $(MACH)_CCFLAGS ) $(CCSOURCEDEBUGFLAGS) \
695   $(CCUSERFLAGS)
696 CCFLAGS64= $(CCOPTFLAG64) $( $(MACH64)_CCFLAGS ) $(CCSOURCEDEBUGFLAGS) \
697   $(CCUSERFLAGS64)

699 #
700 #
701 #
702 ELFWRAP_FLAGS= -fwrapv
703 ELFWRAP_FLAGS64= -fwrapv

705 #
706 # Various mapfiles that are used throughout the build, and delivered to
707 # /usr/lib/ld.
708 #

709 MAPFILE.NED_i386= $(SRC)/common/mapfiles/common/map.noexdata
710 MAPFILE.NED_sparc= $(MAPFILE.NED_$(MACH))
711 MAPFILE.PGA= $(SRC)/common/mapfiles/common/map.pagealign
712 MAPFILE.NES= $(SRC)/common/mapfiles/common/map.noexstk
714 MAPFILE.FLT= $(SRC)/common/mapfiles/common/map.filter
715 MAPFILE.LEX= $(SRC)/common/mapfiles/common/map.lex.yy

717 #
718 # Generated mapfiles that are compiler specific, and used throughout the

```

```

719 # build. These mapfiles are not delivered in /usr/lib/ld.
720 #
721 MAPFILE.NGB_sparc= $(SRC)/common/mapfiles/gen/sparc_cc_map.noexglobs
722 $(__GNUC64)MAPFILE.NGB_sparc= \
723   $(SRC)/common/mapfiles/gen/sparc_gcc_map.noexglobs
724 MAPFILE.NGB_sparcv9= $(SRC)/common/mapfiles/gen/sparcv9_cc_map.noexglobs
725 $(__GNUC64)MAPFILE.NGB_sparcv9= \
726   $(SRC)/common/mapfiles/gen/sparcv9_gcc_map.noexglobs
727 MAPFILE.NGB_i386= $(SRC)/common/mapfiles/gen/i386_cc_map.noexglobs
728 $(__GNUC64)MAPFILE.NGB_i386= \
729   $(SRC)/common/mapfiles/gen/i386_gcc_map.noexglobs
730 MAPFILE.NGB_amd64= $(SRC)/common/mapfiles/gen/amd64_cc_map.noexglobs
731 $(__GNUC64)MAPFILE.NGB_amd64= \
732   $(SRC)/common/mapfiles/gen/amd64_gcc_map.noexglobs
733 MAPFILE.NGB= $(MAPFILE.NGB_$(MACH))

735 #
736 # A generic interface mapfile name, used by various dynamic objects to define
737 # the interfaces and interposers the object must export.
738 #
739 MAPFILE.INT= mapfile-intf

741 #
742 # LDLIBS32 and LDLIBS64 can be set in the environment to override the following
743 # assignments.
744 #
745 # These environment settings make sure that no libraries are searched outside
746 # of the local workspace proto area:
747 #   LDLIBS32=-Y,$ROOT/lib:$ROOT/usr/lib
748 #   LDLIBS64=-Y,$ROOT/lib/$MACH64:$ROOT/usr/lib/$MACH64
749 #
750 LDLIBS32= $(ENVLDLIBS1) $(ENVLDLIBS2) $(ENVLDLIBS3)
751 LDLIBS32+= $(ADJUNCT_PROTO:=-L%:/usr/lib -L%:lib)
752 LDLIBS.cmd= $(LDLIBS32)
753 LDLIBS.lib= $(LDLIBS32)

755 LDLIBS64= $(ENVLDLIBS1:=%/$($MACH64)) \
756   $(ENVLDLIBS2:=%/$($MACH64)) \
757   $(ENVLDLIBS3:=%/$($MACH64))
758 LDLIBS64+= $(ADJUNCT_PROTO:=-L%:/usr/lib/$($MACH64) -L%:lib/$($MACH64))

760 #
761 # Define compilation macros.
762 #
763 COMPILE.c= $(CC) $(CFLAGS) $(CPPFLAGS) -c
764 COMPILE64.c= $(CC) $(CFLAGS64) $(CPPFLAGS) -c
765 COMPILE.cc= $(CCC) $(CCFLAGS) $(CPPFLAGS) -c
766 COMPILE64.cc= $(CCC) $(CCFLAGS64) $(CPPFLAGS) -c
767 COMPILE.s= $(AS) $(ASFLAGS) $(AS_CPPFLAGS)
768 COMPILE64.s= $(AS) $(ASFLAGS) $( $(MACH64)_AS_XARCH) $(AS_CPPFLAGS)
769 COMPILE.d= $(DTRACE) -G -32
770 COMPILE64.d= $(DTRACE) -G -64
771 COMPILE.b= $(ELFWRAP) $(ELFWRAP_FLAGS$(CLASS))
772 COMPILE64.b= $(ELFWRAP) $(ELFWRAP_FLAGS$(CLASS))

774 CLASSPATH=
775 COMPILE.java= $(JAVAC) $(JAVAFLAGS) -classpath $(CLASSPATH)

777 #
778 # Link time macros
779 #
780 CCNEEDED= -lC
781 CCEXTNEEDED= -lCrun -lCstd
782 $(__GNUC)CCNEEDED= -L$(GCCLIBDIR) -lstdc++ -lgcc_s
783 $(__GNUC)CCEXTNEEDED= $(CCNEEDED)

```

```

785 LINK.c=          $(CC) $(CFLAGS) $(CPPFLAGS) $(LDFLAGS)
786 LINK64.c=         $(CC) $(CFLAGS64) $(CPPFLAGS) $(LDFLAGS)
787 NORUNPATH=        -norunpath -nolib
788 LINK.cc=          $(CCC) $(CCFLAGS) $(CPPFLAGS) $(NORUNPATH) \
789                 $(LDFLAGS) $(CCNEEDED)
790 LINK64.cc=         $(CCC) $(CCFLAGS64) $(CPPFLAGS) $(NORUNPATH) \
791                 $(LDFLAGS) $(CCNEEDED)

793 #
794 # lint macros
795 #

796 # Note that the undefine of __PRAGMA_REDEFINE_EXTNAME can be removed once
797 # ON is built with a version of lint that has the fix for 4484186.
798 #

799 ALWAYS_LINT_DEFS =      -errtags=yes -s
800 ALWAYS_LINT_DEFS +=    -erroff=E_PTRDIFF_OVERFLOW
801 ALWAYS_LINT_DEFS +=    -erroff=E_ASSIGN_NARROW_CONV
802 ALWAYS_LINT_DEFS +=    -U__PRAGMA_REDEFINE_EXTNAME
803 ALWAYS_LINT_DEFS +=    $(C99LMODE)
804 ALWAYS_LINT_DEFS +=    -errsecurity=$(SECLEVEL)
805 ALWAYS_LINT_DEFS +=    -erroff=E_SEC_CREAT_WITHOUT_EXCL
806 ALWAYS_LINT_DEFS +=    -erroff=E_SEC_FORBIDDEN_WARN_CREAT
807 # XX64 -- really only needed for amd64 lint
808 ALWAYS_LINT_DEFS +=    -erroff=E_ASSIGN_INT_TO_SMALL_INT
809 ALWAYS_LINT_DEFS +=    -erroff=E_CAST_INT_CONST_TO_SMALL_INT
810 ALWAYS_LINT_DEFS +=    -erroff=E_CAST_INT_TO_SMALL_INT
811 ALWAYS_LINT_DEFS +=    -erroff=E_CAST_TO_PTR_FROM_INT
812 ALWAYS_LINT_DEFS +=    -erroff=E_COMP_INT_WITH_LARGE_INT
813 ALWAYS_LINT_DEFS +=    -erroff=E_INTEGRAL_CONST_EXP_EXPECTED
814 ALWAYS_LINT_DEFS +=    -erroff=E_PASS_INT_TO_SMALL_INT
815 ALWAYS_LINT_DEFS +=    -erroff=E_PTR_CONV_LOSES_BITS

817 # This forces lint to pick up note.h and sys/note.h from Devpro rather than
818 # from the proto area. The note.h that ON delivers would disable NOTE().
819 ONLY_LINT_DEFS =       -I$(SPRO_VROOT)/prod/include/lint

821 SECLEVEL=            core
822 LINT.c=              $(LINT) $(ONLY_LINT_DEFS) $(LINTFLAGS) $(CPPFLAGS) \
823                 $(ALWAYS_LINT_DEFS)
824 LINT64.c=             $(LINT) $(ONLY_LINT_DEFS) $(LINTFLAGS64) $(CPPFLAGS) \
825                 $(ALWAYS_LINT_DEFS)
826 LINT.s=               $(LINT.c)

828 # For some future builds, NATIVE_MACH and MACH might be different.
829 # Therefore, NATIVE_MACH needs to be redefined in the
830 # environment as 'uname -p' to override this macro.
831 #
832 # For now at least, we cross-compile amd64 on i386 machines.
833 NATIVE_MACH=           $(MACH:amd64:i386)

835 # Define native compilation macros
836 #

838 # Base directory where compilers are loaded.
839 # Defined here so it can be overridden by developer.
840 #
841 SPRO_ROOT=             $(BUILD_TOOLS)/SUNWspro
842 SPRO_VROOT=             $(SPRO_ROOT)/SS12
843 GNU_ROOT=              /usr

845 $(__GNUC__)PRIMARY_CC= gcc7,$(GNUC_ROOT)/bin/gcc.gnu
846 $(__SUNC__)PRIMARY_CC=  studio12,$(SPRO_VROOT)/bin/cc,sun
847 $(__GNUC__)PRIMARY_CCC= gcc7,$(GNUC_ROOT)/bin/g++,gnu
848 $(__SUNC__)PRIMARY_CCC= studio12,$(SPRO_VROOT)/bin/CC,sun

850 CW_CC_COMPILER=        $(PRIMARY_CC:==--primary %) $(SHADOW_CCS:==--shadow %)

```

```

851 CW_CCC_COMPILER=      $(PRIMARY_CCC:==--primary %) $(SHADOW_CCCS:==--shadow %)
852 CW_LINKER=             --linker $(LD)
853 #endif /* ! codereview */

856 # Till SS12u1 formally becomes the NV CBE, LINT is hard
857 # coded to be picked up from the $SPRO_ROOT/sunstudio12.1/
858 # location. Impacted variables are sparc_LINT, sparcv9_LINT,
859 # i386_LINT, amd64_LINT.
860 # Reset them when SS12u1 is rolled out.
861 #

863 # Specify platform compiler versions for languages
864 # that we use (currently only c and c++).
865 #
866 CW=                   $(ONBLD_TOOLS)/bin/$(MACH)/cw

868 BUILD_CC=             $(CW) $(CW_LINKER) $(CW_CC_COMPILER) --
869 BUILD_CCC=             $(CW) -C $(CW_LINKER) $(CW_CC_COMPILER) --
870 BUILD_CPP=             $(CW) $(CW_CC_COMPILER) --
871 BUILD_LD=              $(ONBLD_TOOLS)/bin/$(MACH)/ld
872 BUILD_LINT=            /usr/ccs/bin/ld
873 #$(SPRO_ROOT)/sunstudio12.1/bin/lint

874 $(MACH)_CC=            $(BUILD_CC)
875 $(MACH)_CCC=           $(BUILD_CCC)
876 $(MACH)_CPP=            $(BUILD_CPP)
877 $(MACH)_LD=              $(BUILD_LD)
878 $(MACH)_LINT=           $(BUILD_LINT)
879 $(MACH64)_CC=           $(BUILD_CC)
880 $(MACH64)_CCC=          $(BUILD_CCC)
881 $(MACH64)_CPP=           $(BUILD_CPP)
882 $(MACH64)_LD=            $(BUILD_LD)
883 $(MACH64)_LINT=          $(BUILD_LINT)

885 sparc_AS=              /usr/ccs/bin/as -xregsym=no
886 sparcv9_AS=             $($(MACH)_AS)

888 i386_AS=              /usr/ccs/bin/as
889 $(__GNUC__)i386_AS=   $(ONBLD_TOOLS)/bin/$(MACH)/aw
890 amd64_AS=              $(ONBLD_TOOLS)/bin/$(MACH)/aw

892 NATIVECC=              $($(NATIVE_MACH)_CC)
893 NATIVECCC=             $($(NATIVE_MACH)_CCC)
894 NATIVECPP=              $($(NATIVE_MACH)_CPP)
895 NATIVEAS=               $($(NATIVE_MACH)_AS)
896 NATIVELD=               $($(NATIVE_MACH)_LD)
897 NATIVELINT=             $($(NATIVE_MACH)_LINT)

899 #
900 # Makefile.master.64 overrides these settings
901 #
902 CC=                    $(NATIVECC)
903 CCC=                  $(NATIVECCC)
904 CPP=                  $(NATIVECPP)
905 AS=                   $(NATIVEAS)
906 LD=                   $(NATIVELD)
907 LINT=                 $(NATIVELINT)

909 # Pass -Y flag to cpp (method of which is release-dependent)
910 CCYFLAG=               -Y I,
911 #
912 BDIRECT=               -Bdirect
913 BDYNAMIC=              -Bdynamic

```

```

914 BLOCAL=          -Blocal
915 BNODIRECT=       -Bnодirect
916 BREDUCE=         -Breduce
917 BSTATIC=         -Bstatic

919 ZDEFS=           -zdefs
920 ZDIRECT=          -zdirect
921 ZIGNORE=          -zignore
922 ZINITFIRST=       -zinitfirst
923 ZINTERPOSE=       -zinterpose
924 ZLAZYLOAD=        -zlazyload
925 ZLOADFLTR=        -zloadfltr
926 ZMULDEFS=         -zmuldefs
927 ZNODEFAULTLIB=    -znodefaultlib
928 ZNODEFS=          -znodefs
929 ZNODELETE=         -znodelete
930 ZNODOPEN=          -znodopen
931 ZNODUMP=          -znodump
932 ZNOLAZYLOAD=       -znolazyload
933 ZNOLDYNNSYM=      -znoldynsym
934 ZNORELOC=          -zno reloc
935 ZNOVERSION=        -zno version
936 ZRECORD=          -zrecord
937 ZREDLOCSSYM=      -zredlocssym
938 ZTEXT=             -ztext
939 ZVERBOSE=          -zverbose

941 GSHARED=          -G
942 CCMT=              -mt

944 # Handle different PIC models on different ISAs
945 # (May be overridden by lower-level Makefiles)

947 sparc_C_PICFLAGS = -fpic
948 sparcv9_C_PICFLAGS = -fpic
949 i386_C_PICFLAGS = -fpic
950 amd64_C_PICFLAGS = -fpic
951 C_PICFLAGS = $( $(MACH)_C_PICFLAGS )
952 C_PICFLAGS64 = $( $(MACH64)_C_PICFLAGS )

954 sparc_C_BIGPICFLAGS = -fPIC
955 sparcv9_C_BIGPICFLAGS = -fPIC
956 i386_C_BIGPICFLAGS = -fPIC
957 amd64_C_BIGPICFLAGS = -fPIC
958 C_BIGPICFLAGS = $( $(MACH)_C_BIGPICFLAGS )
959 C_BIGPICFLAGS64 = $( $(MACH64)_C_BIGPICFLAGS )

961 # CC requires there to be no space between '-K' and 'pic' or 'PIC'.
962 # and does not support -f
963 sparc_CC_PICFLAGS = -_cc=-Kpic -_gcc=-fpic
964 sparcv9_CC_PICFLAGS = -_cc=-Kpic -_gcc=-fPIC
965 i386_CC_PICFLAGS = -_cc=-Kpic -_gcc=-fpic
966 amd64_CC_PICFLAGS = -_cc=-Kpic -_gcc=-fpic
967 CC_PICFLAGS = $( $(MACH)_CC_PICFLAGS )
968 CC_PICFLAGS64 = $( $(MACH64)_CC_PICFLAGS )

970 AS_PICFLAGS=       -K pic
971 AS_BIGPICFLAGS=    -K PIC

973 #
974 # Default label for CTF sections
975 #
976 CTFCVTFLAGS=        -L VERSION

978 #
979 # Override to pass module-specific flags to ctfmerge. Currently used only by

```

```

980 # krtld to turn on fuzzy matching, and source-level debugging to inhibit
981 # stripping.
982 #
983 CTFMRGFLAGS=

985 #
986 # Make the transition between old and new CTF Tools. The new ctf tools
987 # do not support stabs (eg. Sun Studio). By setting BUILD_OLD_CTF_TOOLS
988 # here or in the environment file, the old ones will be built.
989 #
990 BUILD_NEW_CTF_TOOLS=
991 BUILD_OLD_CTF_TOOLS=$(POUND_SIGN)
992 $(BUILD_OLD_CTF_TOOLS)BUILD_NEW_CTF_TOOLS= $(POUND_SIGN)

994 CTFCONVERT_O          = $(CTFCONVERT) $(CTFCVTFLAGS) $@

996 # Rules (normally from make.rules) and macros which are used for post
997 # processing files. Normally, these do stripping of the comment section
998 # automatically.
999 # RELEASE_CM: Should be edited to reflect the release.
1000 # POST_PROCESS_O: Post-processing for '.o' files (typically C source)
1001 # POST_PROCESS_S_O: Post-processing for '.o' files built from assembly
1002 # POST_PROCESS_CC_O: Post-processing for '.o' files built from C++
1003 # POST_PROCESS_A: Post-processing for '.a' files (currently null).
1004 # POST_PROCESS_SO: Post-processing for '.so' files.
1005 # POST_PROCESS: Post-processing for executable files (no suffix).
1006 #
1007 # Note that these macros are not completely generalized as they are to be
1008 # used with the file name to be processed following.
1009 #
1010 # It is left as an exercise to Release Engineering to embellish the generation
1011 # of the release comment string.
1012 #
1013 # If this is a standard development build:
1014 # compress the comment section (mcs -c)
1015 # add the standard comment (mcs -a $(RELEASE_CM))
1016 # add the development specific comment (mcs -a $(DEV_CM))
1017 #
1018 # If this is an installation build:
1019 # delete the comment section (mcs -d)
1020 # add the standard comment (mcs -a $(RELEASE_CM))
1021 # add the development specific comment (mcs -a $(DEV_CM))
1022 #
1023 # If this is an release build:
1024 # delete the comment section (mcs -d)
1025 # add the standard comment (mcs -a $(RELEASE_CM))
1026 #

1027 # The following list of macros are used in the definition of RELEASE_CM
1028 # which is used to label all binaries in the build:
1029 #
1030 # RELEASE Specific release of the build, eg: 5.2
1031 # RELEASE_MAJOR Major version number part of $(RELEASE)
1032 # RELEASE_MINOR Minor version number part of $(RELEASE)
1033 # VERSION Version of the build (alpha, beta, Generic)
1034 # PATCHID If this is a patch this value should contain
1035 # the patchid value (eg: "Generic 100832-01"), otherwise
1036 # it will be set to $(VERSION)
1037 # RELEASE_DATE Date of the Release Build
1038 # PATCH_DATE Date the patch was created, if this is blank it
1039 # will default to the RELEASE_DATE
1040 #
1041 RELEASE_MAJOR= 5
1042 RELEASE_MINOR= 11
1043 RELEASE= $(RELEASE_MAJOR).$(RELEASE_MINOR)
1044 VERSION= SunOS Development
1045 PATCHID= $(VERSION)

```

```

1046 RELEASE_DATE= release date not set
1047 PATCH_DATE= $(RELEASE_DATE)
1048 RELEASE_CM= "@$(POUND_SIGN)SunOS $(RELEASE) $(PATCHID) $(PATCH_DATE)"
1049 DEV_CM= "@$(POUND_SIGN)SunOS Internal Development: non-nightly build"
1051 PROCESS_COMMENT= @?${MCS} -d -a $(RELEASE_CM) -a $(DEV_CM)
1052 $(RELEASE_BUILD)PROCESS_COMMENT= @?${MCS} -d -a $(RELEASE_CM)
1054 STRIP_STABS= $(STRIP) -x $@
1055 $(SRCDBGBLD)STRIP_STABS=
1057 POST_PROCESS_O=
1058 POST_PROCESS_S_O=
1059 POST_PROCESS_CC_O=
1060 POST_PROCESS_A=
1061 POST_PROCESS_SO= $(PROCESS_COMMENT) $@ ; $(STRIP_STABS) ; \
1062 $(ELFSIGN_OBJECT)
1063 POST_PROCESS= $(PROCESS_COMMENT) $@ ; $(STRIP_STABS) ; \
1064 $(ELFSIGN_OBJECT)

1066 #
1067 # chk4ubin is a tool that inspects a module for a symbol table
1068 # ELF section size which can trigger an OBP bug on older platforms.
1069 # This problem affects only specific sun4u bootable modules.
1070 #
1071 CHK4UBIN= $(ONBLD_TOOLS)/bin/$(MACH)/chk4ubin
1072 CHK4UBINFLAGS=
1073 CHK4UBINARY= $(CHK4UBIN) $(CHK4UBINFLAGS) $@

1075 #
1076 # PKGARCHIVE specifies the default location where packages should be
1077 # placed if built.
1078 #
1079 $(RELEASE_BUILD)PKGARCHIVESUFFIX= -nd
1080 PKGARCHIVE=$(SRC)/../../packages/$(MACH)/nightly$(PKGARCHIVESUFFIX)

1082 #
1083 # The repositories will be created with these publisher settings. To
1084 # update an image to the resulting repositories, this must match the
1085 # publisher name provided to "pkg set-publisher."
1086 #
1087 PKGPUBLISHER_REDIST= on-nightly
1088 PKGPUBLISHER_NONREDIST= on-extra

1090 # Default build rules which perform comment section post-processing.
1091 #
1092 .c:
1093 $(LINK.c) -o $@ $< $(LDLIBS)
1094 $(POST_PROCESS)
1095 .c.o:
1096 $(COMPILE.c) $(OUTPUT_OPTION) $< $(CTFCONVERT_HOOK)
1097 $(POST_PROCESS_O)
1098 .c.a:
1099 $(COMPILE.c) -o $% $<
1100 $(PROCESS_COMMENT) $%
1101 $(AR) $(ARFLAGS) $@ $%
1102 $(RM) $%
1103 .s.o:
1104 $(COMPILE.s) -o $@ $<
1105 $(POST_PROCESS_S_O)
1106 .s.a:
1107 $(COMPILE.s) -o $% $<
1108 $(PROCESS_COMMENT) $%
1109 $(AR) $(ARFLAGS) $@ $%
1110 $(RM) $%
1111 .cc:

```

```

1112 $(LINK.cc) -o $@ $< $(LDLIBS)
1113 $(POST_PROCESS)
1114 .cc.o:
1115 $(COMPILE.cc) $(OUTPUT_OPTION) $<
1116 $(POST_PROCESS_CC_O)
1117 .cc.a:
1118 $(COMPILE.cc) -o $% $<
1119 $(AR) $(ARFLAGS) $@ $%
1120 $(PROCESS_COMMENT) $%
1121 $(RM) $%
1122 .y:
1123 $(YACC.y) $<
1124 $(LINK.c) -o $@ y.tab.c $(LDLIBS)
1125 $(POST_PROCESS)
1126 $(RM) y.tab.c
1127 .y.o:
1128 $(YACC.y) $<
1129 $(COMPILE.c) -o $@ y.tab.c $(CTFCONVERT_HOOK)
1130 $(POST_PROCESS_O)
1131 $(RM) y.tab.c
1132 .l:
1133 $(RM) $*.c
1134 $(LEX.l) $< > $*.c
1135 $(LINK.c) -o $@ $*.c -ll $(LDLIBS)
1136 $(POST_PROCESS)
1137 $(RM) $*.c
1138 .l.o:
1139 $(RM) $*.c
1140 $(LEX.l) $< > $*.c
1141 $(COMPILE.c) -o $@ $*.c $(CTFCONVERT_HOOK)
1142 $(POST_PROCESS_O)
1143 $(RM) $*.c
1145 .bin.o:
1146 $(COMPILE.b) -o $@ $<
1147 $(POST_PROCESS_O)
1149 .java.class:
1150 $(COMPILE.java) $<
1152 # Bourne and Korn shell script message catalog build rules.
1153 # We extract all gettext strings with sed(1) (being careful to permit
1154 # multiple gettext strings on the same line), weed out the dups, and
1155 # build the catalogue with awk(1).
1157 .sh.po .ksh.po:
1158 $(SED) -n -e ":a"
1159 -e "h"
1160 -e "s/.gettext *\\([^\"]*\\\").*/\\1/p"
1161 -e "x"
1162 -e "s/\\(.*)gettext *\\([^\"]*\\\"(.*)\\1\\2/" \
1163 -e "t a"
1164 $< | sort -u | $(AWK) '{ print "msgid\\t" $$0 "\nmsgstr" }' > $@
1166 #
1167 # Python and Perl executable and message catalog build rules.
1168 #
1169 .SUFFIXES: .pl .pm .py .pyc
1171 .pl:
1172 $(RM) $@;
1173 $(SED) -e "s@TEXT_DOMAIN@\"$(TEXT_DOMAIN)\\@" $< > $@;
1174 $(CHMOD) +x $@
1176 .py:
1177 $(RM) $@; $(SED) \

```

```

1178      -e "ls:^#!@PYTHON@:@#!$(PYSHEBANG):" \
1179      -e "ls:^#!@TOOLS_PYTHON@:@#!$(TOOLS_PYTHON):" \
1180      < $< > $@; $(CHMOD) +x $@

1182 .py.pyc:
1183     $(RM) $@
1184     $(PYTHON) -m py_compile $<
1185     @[ $(<)c = $@ ] || $(MV) $(<)c $@

1187 .py.po:
1188     $(GNUXGETTEXT) $(GNUXGETFLAGS) -d $($<%.py=%) $< ;

1190 .pl.po .pm.po:
1191     $(XGETTEXT) $(XGETFLAGS) -d $($<F) $< ;
1192     $(RM) $@ ;
1193     $(SED) "/^domain/d" < $($<F).po > $@ ;
1194     $(RM) $($<F).po

1196 #
1197 # When using xgettext, we want messages to go to the default domain,
1198 # rather than the specified one. This special version of the
1199 # COMPILE.cpp macro effectively prevents expansion of TEXT_DOMAIN,
1200 # causing xgettext to put all messages into the default domain.
1201 #
1202 CPPFORPO=$(COMPILE.cpp:\\"$${TEXT_DOMAIN}\\"=TEXT_DOMAIN)

1204 .c.i:
1205     $(CPPFORPO) $< > $@

1207 .h.i:
1208     $(CPPFORPO) $< > $@

1210 .y.i:
1211     $(YACC) -d $<
1212     $(CPPFORPO) y.tab.c > $@;
1213     $(RM) y.tab.c

1215 .l.i:
1216     $(LEX) $<
1217     $(CPPFORPO) lex.yy.c > $@;
1218     $(RM) lex.yy.c

1220 .c.po:
1221     $(CPPFORPO) $< > $<.i
1222     $(BUILD.po)

1224 .cc.po:
1225     $(CPPFORPO) $< > $<.i
1226     $(BUILD.po)

1228 .y.po:
1229     $(YACC) -d $<
1230     $(CPPFORPO) y.tab.c > $<.i
1231     $(BUILD.po)
1232     $(RM) y.tab.c

1234 .l.po:
1235     $(LEX) $<
1236     $(CPPFORPO) lex.yy.c > $<.i
1237     $(BUILD.po)
1238     $(RM) lex.yy.c

1240 #
1241 # Rules to perform stylistic checks
1242 #
1243 .SUFFIXES: .x .xml .check .xmlchk

```

```

1245 .h.check:
1246     $(DOT_H_CHECK)

1248 .x.check:
1249     $(DOT_X_CHECK)

1251 .xml.xmlchk:
1252     $(MANIFEST_CHECK)

1254 #
1255 # Include rules to render automated sccs get rules "safe".
1256 #
1257 include $(SRC)/Makefile.noget

```

new/usr/src/cmd/sgs/Makefile

```
*****
3734 Sun Jul 14 19:11:51 2019
new/usr/src/cmd/sgs/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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26 #
27 include      $(SRC)/cmd/Makefile.cmd
28 #
29 # Note: Why SUBDIRS-common isn't sorted alphabetically
30 #
31 #
32 # The items under SGS are not independent of each other.
33 # They must be built in an order that ensures that
34 # all dependencies of an item have been built before the
35 # item itself.
36 #
37 SUBDIRS-common= libconv      \
38           .WAIT          \
39           libdl          \
40           libelf          \
41           liblddbg        \
42           .WAIT          \
43           libld          \
44           libldmake       \
45           libldstab       \
46           librtld         \
47           librcle         \
48           .WAIT          \
49           0@0            \
50           ld              \
51           ldd             \
52           lddstub         \
53           rtld            \
54           link_audit      \
55           .WAIT          \
56           librtld_db      \
57           ldprof          \
58           pvs             \
59
60
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```

1

new/usr/src/cmd/sgs/Makefile

```
crle          \
ar            \
dump          \
elfdump        \
elfedit        \
elfwrap        \
error          \
gprof          \
lari          \
lex            \
lorder         \
m4             \
mcs            \
moe            \
nm             \
prof           \
ranlib         \
size           \
symorder       \
tsort          \
unifdef        \
yacc
82 SUBDIRS-i386=
83 SUBDIRS-sparc= rtld.4.x
85 SUBDIRS=      $(SUBDIRS-common) $(SUBDIRS-$($MACH))
87 # Messaging support
88 #
89 POSUBDIRS=    m4          nm          tsort          yacc
90 POFILE=       sgs.po      $(POFILE)
91 POFILES=      $(POFILE)
93 MSGSUBDIRS=   ld          ldd          libld          liblddbg \
94           libldstab   librtld     rtld          libelf \
95           ldprof      librcle     pvs           elfdump \
96           libelfedit  crle       moe          lari \
97           librtld_db  elfwrap    ar
99 MSGDIR=       messages
102 all :=        TARGET= all
103 install :=    TARGET= install
104 clean :=      TARGET= clean
105 clobber :=    TARGET= clobber
106 delete :=     TARGET= delete
107 lint :=       TARGET= lint
108 _msg :=        TARGET= catalog
109 _msg_gettext := TARGET= catalog
110 _msg_sgsmsg := TARGET= catalog
111 chkmsg :=     TARGET= chkmsg
114 .KEEP_STATE:
116 .PARALLEL:     $(SUBDIRS)
118 all install:  $(SUBDIRS)
118 all install:  native-add .WAIT $(SUBDIRS)
120 include        $(SRC)/cmd/Makefile.targ
122 # Messaging support
123 #
```

2

```

124 _msg: _msg_gettext _msg_sgsmmsg
126 _msg_gettext: $(MSGDOMAIN)/$(POFILE)
128 _msg_sgsmmsg: $(MSGDIR)
129 # $(MACH)/sgsmmsg must be built before we can descend into $(MSGDIR)
129 _msg_sgsmmsg: native-add .WAIT $(MSGDIR)

130 $(MSGDOMAIN)/$(POFILE): \
131         $(MSGDOMAIN) $(POFILE)

133 $(POFILE):      $(POSUBDIRS)
134         $(RM) $(POFILE)
135         cat $(POFILES) > $(POFILE)

137 $(MSGDIR):      $(MSGSUBDIRS) FRC
138         @ cd $@; pwd; $(MAKE) $(TARGET)

140 chkmssg:        libconv $(MSGSUBDIRS) FRC

142 check:          chkmssg

144 # built from lib/Makefile
145 install_lib:    FRC
146         @ cd lex; pwd; $(MAKE) $@
147         @ cd yacc; pwd; $(MAKE) $@

149 lint:
```

```

151 delete clean clobber: $(SUBDIRS) $(MSGDIR)
152 delete \
153 clean clobber: native-clobber .WAIT $(SUBDIRS) $(MSGDIR)

153 $(SUBDIRS):      FRC
154         @ cd $@; pwd; $(MAKE) $(TARGET)
```

159 # Integration of ld and ld.so.1 in some development cycles requires that both
160 # of these modules be built using the new ld. This 'native' target allows us
161 # to build a local ld which will then be used to build the delivered version of
162 # itself and ld.so.1. Once this new functionality appears in the standard ld
163 # this target can be disabled.

```

165 native-add:      FRC
166         @ cd tools/$(MACH); pwd; $(MAKE) native
167         @ cd libconv/$(MACH); pwd; $(MAKE)
168         @ cd libelf/$(MACH); pwd; $(MAKE) native
169         @ cd liblddb/$(MACH); pwd; $(MAKE) native
170         @ cd libldstab/$(MACH); pwd; $(MAKE) native
171         @ cd libld/$(MACH); pwd; $(MAKE) native
172         @ cd ld/$(MACH); pwd; $(MAKE) native

174 native-clobber:
175         @ cd tools; pwd; $(MAKE) $(TARGET)
176         $(RM) -r proto/$(MACH)
```

156 FRC:

```

158 #
159 # Cross-reference customization: ignore the directories named by XRPRUNE,
160 # and tweak the file globs slightly.
161 #
162 XRPRUNE=          rtld.4.x abi
184 XRPRUNE=          rtld.4.x packages abi
163 XRADD=            *.msg mapfile*
164 XRDEL=            Makefile* kobj_*
```

```

166 #
167 # Establish a set of directories for xref to search. As there are duplicates
168 # of things like headers, and only one file will be added to the xref database,
169 # we want xref to list the source file.
170 #
171 XRDIRS=           . \
172             ../../common/elfcap \
173             ../../head \
174             ../../uts/common/krtld \
175             ../../uts/common/sys \
176             ../../uts/sparc/sys \
177             ../../uts/sparc/krtld \
178             ../../uts/intel/ia32/krtld \
179             ../../uts/intel/amd64/krtld

181 xref:
182         FRC
183         @ $(RM) cscope.*
183         xref -p -x cscope
```

```
new/usr/src/cmd/sgs/Makefile.com
```

```
*****
3592 Sun Jul 14 19:11:52 2019
new/usr/src/cmd/sgs/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWORLD has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
*****
```

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26 #

28 .KEEP_STATE:
29 .KEEP_STATE_FILE: .make.state.$(MACH)

32 include      $(SRC)/cmd/sgs/Makefile.var

34 SRCBASE =     ../../..
34 i386_ARCH =   intel
35 sparc_ARCH =  sparc

37 ARCH =        $($MACH)_ARCH

39 # Establish any global flags.

41 # Setting DEBUG = -DDEBUG (or "make DEBUG=-DDEBUG ...") enables ASSERT()
42 # checking. This is automatically enabled for DEBUG builds, not for non-debug
43 # builds. Unset the global CSTD_GNU89 flag to insure we uncover all compiler
44 # warnings/errors.
45 DEBUG =
46 $(NOT_RELEASE_BUILD)DEBUG = -DDEBUG

48 CSTD_GNU89 =   $(CSTD_GNU99)

50 CFLAGS +=      $(CCVERBOSE) $(DEBUG) $(XFFLAG)
51 CFLAGS64 +=    $(CCVERBOSE) $(DEBUG) $(XFFLAG)

53 NATIVE_CFLAGS += $(CCVERBOSE) $(DEBUG) $(XFFLAG)

55 #endif /* ! codereview */
56 CERRWARN +=    _gcc=-Wno-type-limits
```

```
1
```

```
new/usr/src/cmd/sgs/Makefile.com
```

```
57 CERRWARN +=      _gcc=-Wno-parentheses
58 CERRWARN +=      _gcc=-Wno-unused-value

60 #
61 # Location of the shared elfcap code
62 #
63 ELF_CAP=        $(SRC)/common/elfcap

65 # Reassign CPPFLAGS so that local search paths are used before any parent
66 # $ROOT paths.
67 CPPFLAGS =       -I. -I../common -I$(SGSHOME)/include -I$(SGSHOME)/include/$(MACH)
55 CPPFLAGS =       -I. -I./common -I../include -I../../include/$(MACH) \
68                               $(CPPFLAGS.master) -I$(ELF_CAP)

70 # PIC64 is unique to our environment
71 $(PIC64) :=      sparc_CFLAGS += -xregs=no%appl $(C_PICFLAGS)
72 $(PIC64) :=      sparcv9_CFLAGS += -xregs=no%appl $(C_PICFLAGS)
73 $(PIC64) :=      CPPFLAGS += -DPIC -D_REENTRANT

75 LDFLAGS +=      $(ZIGNORE)
76 DYNFLAGS +=      $(ZIGNORE)

78 # Establish the local tools, proto and package area.

80 SGSHOME =        $(SRC)/cmd/sgs
81 SGSCOMMON =      $(SGSHOME)/common
69 SGSPROTO =       $(SGSHOME)/proto/$(MACH)
82 SGSTOOLS =       $(SGSHOME)/tools
83 SGSMMSGID =     $(SGSHOME)/messages
84 SGSMMSGDIR =   $(SGSHOME)/messages/$(MACH)
85 SGSONLD =       $(ROOT)/opt/SUNWORLD
86 SGSRPATH =      /usr/lib
87 SGSRPATH64 =   $(SGSRPATH)/$(MACH64)

77 # Mimic the structure of an installed system.

79 SGSLIBDIR =     $(SGSPROTO)/lib
80 SGSPREFIX =     $(SGSPROTO)/usr
81 SGSBINDIR =    $(SGSPREFIX)/bin

89 #
90 # Macros to be used to include link against libconv and include vernote.o
91 #
92 VERSREF =        -ulink_ver_string

94 LDLIBDIR =      -L$(SGSHOME)/libld/$(MACH)
95 LDLIBDIR64 =    -L$(SGSHOME)/libld/$(MACH64)

97 CONVLIBDIR =   -L$(SGSHOME)/libconv/$(MACH)
98 CONVLIBDIR64 = -L$(SGSHOME)/libconv/$(MACH64)

100 ELF_LIBDIR =   -L$(SGSHOME)/libelf/$(MACH)
101 ELF_LIBDIR64 = -L$(SGSHOME)/libelf/$(MACH64)

103 LDDBGLIBDIR = -L$(SGSHOME)/libldebug/$(MACH)
104 LDDBGLIBDIR64 = -L$(SGSHOME)/libldebug/$(MACH64)

107 # The cmd/Makefile.com and lib/Makefile.com define TEXT_DOMAIN. We don't need
108 # this definition as the sgs utilities obtain their domain via sgsmg(1).
110 DTEXTDOM =

112 # Define any generic sgsmg(1) flags. The default message generation system
113 # is to use gettext(3i), add the -C flag to switch to catgets(3c).
```

```
2
```

```
115 SGMSG = $(ONBLD_TOOLS)/bin/$(MACH)/sgmsg
109 SGMSG =
116 SGMSG_PIGLATIN_NL = perl $(SGSTOOLS)/common/sgmsg_sgmsg_piglatin_nl.pl
117 CHKMSG =
111 CHKMSG = $(SGSHOME)/tools/chkmsg.sh
111 CHKMSG = $(SGSTOOLS)/chkmsg.sh

119 SGMSGVFLAG =
120 SGMSGFLAGS = $(SGMSGVFLAG) -i $(SGMSGID)/sgs.ident
121 CHKMSGFLAGS = $(SGMSGTARG:%=m %) $(SGMSGCHK:%=m %)

117 # Native targets should use the minimum of ld(1) flags to allow building on
118 # previous releases. We use mapfiles to scope, but don't bother versioning.

120 native := DYNFLAGS = -R$(SGSLIBDIR) -L$(SGSLIBDIR) $(ZNOVERSION) \
121           $(HSONAME)

123 # Comment out the following two lines to have the sgs built from the system
124 # link-editor, rather than the local proto link-editor.
125 CC_USE_PROTO = -Yl,$(SGSBINDIR)
126 LD_USE_PROTO = $(SGSBINDIR)/

128 LD_LIB = -lld
129 LD_LIB32 = -lld32
130 LD_LIB64 = -lld64

132 LDDBG_LIB = -llddbg
133 LDDBG_LIB32 = -llddbg32
134 LDDBG_LIB64 = -llddbg64

136 CONV_LIB = -lconv
137 CONV_LIB32 = -lconv32
138 CONV_LIB64 = -lconv64
```

new/usr/src/cmd/sgs/Makefile.targ

1

```
*****
1888 Sun Jul 14 19:11:52 2019
new/usr/src/cmd/sgs/Makefile.targ
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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28 # Standard install rules
29 # The VAR_SGSBIN and VAR_SGSBIN64 install rules included here are applicable
30 # to Solaris 10 and earlier releases. For post Solaris 10 releases, the
31 # standard ROOTBIN and ROOTBIN64 rules defined in ../Makefile.cmd are used.
32 # The new rules here are included to allow for easier backporting. Making
33 # the appropriate updates in ./Makefile.var, will allow the SGS components
34 # to be installed in /usr/ccs/bin rather than the current /usr/bin.
35 #
36 $(VAR_SGSBIN)/%: %
37     $(INS.file)

39 $(VAR_SGSBIN64)/%: %
40     $(INS.file)

42 $(ROOTFS_LIBDIR)/$(LIBLINKS): $(ROOTFS_LIBDIR)/$(LIBLINKS)$(VERS)
43     $(INS.liblink)

45 $(ROOTFS_LIBDIR64)/$(LIBLINKS): $(ROOTFS_LIBDIR64)/$(LIBLINKS)$(VERS)
46     $(INS.liblink64)

48 $(ROOTFS_LIBDIR)/$(LIBLINKSCCC): $(ROOTFS_LIBDIR)/$(LIBLINKSCCC)$(VERS)
49     $(INS.liblinkccc)

51 $(ROOTFS_LIBDIR64)/$(LIBLINKSCCC): $(ROOTFS_LIBDIR64)/$(LIBLINKSCCC)$(VERS)
52     $(INS.liblinkccc64)

54 #
55 # For those that install into the SGSPROTO directory.
56 #
57 $(SGSPROTO):
58     $(INS.dir)
```

new/usr/src/cmd/sgs/Makefile.targ

2

```
60 $(SGSBINDIR): $(SGSPROTO)
61     $(INS.dir)

63 $(SGSPREFIX): $(SGSPROTO)
64     $(INS.dir)

66 $(SGSLIBDIR): $(SGSPREFIX)
67     $(INS.dir)

54 FRC:
```

new/usr/src/cmd/sgs/Makefile.var

```
*****
4265 Sun Jul 14 19:11:53 2019
new/usr/src/cmd/sgs/Makefile.var
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
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11465 sgsmsg should be built with the rest of the build tools
*****
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25 #

27 # The link-editor related source files and Makefile files have at times been
28 # unified across all presently maintained release gates. However, some of the
29 # compiler pre-processor flags and link-editor flags are different among the
30 # releases. This file is used to specify such flags.
31 #
32 # This file is included by ./Makefile.com, but may also be included directly in
33 # the case where the utility is relying on the contents of ../../Makefile.com.
34 #
35 # This file should be the only file which is different among the presently
36 # maintained release workspaces, when the sources are unified.
37 #
38 # CPPFEATUREMACROS provides for selectively turning on/off features within the
39 # various link-editor components. Presently, none are set.
40 #
41 # Some source files need to use #ifdef to distinguish between the patch release,
42 # and for the packages targeting to the pre-libc/libthread unified environment.
43 # These values are available for CPPFLAGS:
44 #
45 #     SGS_PRE_UNIFIED_PROCESS
46 #
47 #         is set if the target release is for pre-libc/libthread unified
48 #         environment. This is used for rtld and crle.

50 #
51 # Common Macro definitions
52 #

54 VAR_PLAT_sparc=      sparc
55 VAR_PLAT_i386=        intel/ia32
56 VAR_PLAT_amd64=       intel/amd64

58 #
```

1

new/usr/src/cmd/sgs/Makefile.var

```
59 # VAR_AVLDIR - directory to find avl.c in.
60 #
61 # The avl.c file is under usr/src/common/avl in Solaris 10 (and later),
62 # but in earlier releases it is not present (problem to be solved).
63 #
64 # The avl.h and avl_impl.h files are under usr/src/uts/common/sys in
65 # Solaris 10 (and later). They are under usr/src/cmd/sgs/tools/common/sys
66 # in Solaris 9 and earlier.
67 #
68 # For Solaris 9 and earlier releases, we will have our own copy of the
69 # files avl.c, avl.h and avl_impl.h until these files are back ported into
70 # the system.
71 #
72 VAR_AVLDIR=           $(SRC)/common/avl
73 VAR_AVLINCDIR=        -I $(SRC)/uts/common
72 VAR_AVLDIR=           $(SRCBASE)/common/avl
73 VAR_AVLINCDIR=        -I $(SRCBASE)/uts/common

75 #
76 # VAR_DTRDIR - directory to find dtrace_data.c in.
77 #
78 # In Solaris 10 and earlier releases, dtrace_data.c was maintained as separate
79 # files under sgs/rtld. This file is now under usr/src/common/dtrace.
80 #
81 VAR_DTRDIR=           $(SRC)/common/dtrace
81 VAR_DTRDIR=           $(SRCBASE)/common/dtrace

83 #
84 # VAR_SGSBINPROG
85 #
86 # For Solaris 10 and earlier releases, the SGS components were installed in
87 # /usr/ccs/bin. These components are now installed in /usr/bin with associated
88 # symbolic links for compatibility. For previous behavior, set the VAR_SGSBIN*
89 # variables to the appropriate ROOTCCSBIN* rule and set the VAR_SGCCSLINK*
90 # rules to null.
91 #
92 VAR_SGSBIN=            $(ROOTBIN)
93 VAR_SGSBINPROG=        $(ROUTPROG)
94 VAR_SGSBIN64=          $(ROOTBIN64)
95 VAR_SGSBINPROG64=      $(ROUTPROG64)

97 VAR_SGCCSLINK=         $(ROOTCCSBINLINK)
98 VAR_SGCCSLINK64=       $(ROOTCCSBINLINK64)

100 #
101 # ld
102 #
103 VAR_LD_LLDFLAGS=      '-R$@ORIGIN/../../lib'
104 VAR_LD_LLDFLAGS64 =   '-R$@ORIGIN/../../../../lib/$(MACH64)'

106 #
107 # elfdump
108 #
109 VAR_ELFNDUMP_LLDFLAGS= '-R$@ORIGIN/../../lib'
110 VAR_ELFNDUMP_LLDFLAGS64 = '-R$@ORIGIN/../../../../lib/$(MACH64)'

112 #
113 # elfedit
114 #
115 VAR_ELFEDIT_LLDFLAGS=  '-R$@ORIGIN/../../lib'
116 VAR_ELFEDIT_LLDFLAGS64 = '-R$@ORIGIN/../../../../lib/$(MACH64)'

118 #
119 # lddstub
120 #
121 VAR_LDDSTUB_INTERP=   -I '$$ORIGIN/ld.so.1'
```

2

```
123 #
124 # libld
125 #
126 VAR_LIBLD_CPPFLAGS=      $(VAR_AVLINCDIR)
127 VAR_LIBLD_64_ROOTFS_LIBDIR= $(ROOT)/lib/$(MACH64)

129 #
130 # Tools
131 #
132 VAR_TOOLS_CPPFLAGS=      $(VAR_AVLINCDIR)

134 #
135 # libldebug
136 #
137 VAR_LIBLDEBUG_64_ROOTFS_LIBDIR= $(ROOT)/lib/$(MACH64)

139 #
140 # rtld
141 #
142 VAR_RTLD_CPICLIB=        -L ../../../../../../lib/libc/$(MACH)
143 VAR_RTLD_CPICLIB64=      -L ../../../../../../lib/libc/$(MACH64)
```

new/usr/src/cmd/sgs/ar/Makefile.com

```
*****
1901 Sun Jul 14 19:11:53 2019
new/usr/src/cmd/sgs/ar/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
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25 #

27 PROG= ar
28 XPG4PROG= ar

30 include $(SRC)/cmd/Makefile.cmd
31 include $(SRC)/cmd/sgs/Makefile.com

33 COMOBJ= main.o file.o cmd.o

35 BLTOBJ = msg.o

37 OBJS= $(BLTOBJ:%=objs/%) $(COMOBJ:%=objs/%)
38 XPG4OBJS= $(BLTOBJ:%=objs.xpg4/%) $(COMOBJ:%=objs.xpg4/%)

40 LLDFLAGS =
41 LLDFLAGS64 =
42 CPPFLAGS=
43 CFLAGS += $(CCVERBOSE)
44 CSTD= $(CSTD_GNU99)

46 CERRWARN += -_gcc=-Wno-uninitialized

48 SMOFF += signed

50 LDLIBS += -lelf $(CONVLIBDIR) -lconv -lsendfile
50 LDLIBS += -lelf $(CONVLIBDIR) $(CONV_LIB) -lsendfile

52 $(XPG4) := CPPFLAGS += -DXPG4

54 BLTDEFS = msg.h
55 BLTDATA = msg.c
56 BLTMESG = $(SGSMMSGDIR)/ar
```

1

new/usr/src/cmd/sgs/ar/Makefile.com

```
58 BLTFILES = $(BLTDEFS) $(BLTDATA) $(BLTMESG)

60 SGSMMSGCOM = ../common/ar.msg
61 SGSMSGTARG = $(SGSMMSGCOM)
62 SGSMSGALL = $(SGSMMSGCOM)

64 SGSMSGFLAGS += -h $(BLTDEFS) -d $(BLTDATA) -m $(BLTMESG) -n ar_msg

66 SRCS= $(COMOBJ:%.o=../common/%.c) $(BLTDATA:%.o=$(SGSCOMMON)/%.c)
66 SRCS= $(COMOBJ:%.o=../common/%.c) $(BLTDATA:%.o=$(SGSTOOLS)/common/%.c)

68 CLEANFILES += $(BLTFILES)
```

2

```
*****
```

```
1236 Sun Jul 14 19:11:54 2019
```

```
new/usr/src/cmd/sgs/common/assfail.c
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWold has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmsg should be built with the rest of the build tools
```

```
*****
```

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25 */
```

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

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

```
30 /*  
31  * Provide assfail() for ASSERT() statements,  
32  * see <sys/debug.h> for further details.  
33 */  
34 int  
35 assfail(const char *a, const char *f, int l)  
36 {  
37     (void) printf("assertion failed: %s, file: %s, line: %d\n",  
38                 a, f, l);  
39     abort();  
40     return (0);  
41 }
```

unchanged portion omitted

```
*****
1352 Sun Jul 14 19:11:54 2019
new/usr/src/cmd/sgs/common/findprime.c
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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22 /*
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25 */
27 #pragma ident "%Z%%M% %I%      %E% SMI"
27 #include <sys/types.h>
29 /*
30 * function that will find a prime'ish number. Usefull for
31 * hashbuckets and related things.
32 */
33 uint_t
34 findprime(uint_t count)
35 {
36     uint_t h, f;
38     if (count <= 3)
39         return (3);
42     /*
43     * Check to see if divisible by two, if so
44     * increment.
45     */
46     if ((count & 0x1) == 0)
47         count++;
49     for (h = count, f = 2; f * f <= h; f++)
50         if ((h % f) == 0)
51             h += f = 1;
52     return (h);
53 }


---

unchanged portion omitted
```

```
*****
1356 Sun Jul 14 19:11:55 2019
new/usr/src/cmd/sgs/common/strhash.c
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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25 */
27 #pragma ident "%Z%%M% %I%      %E% SMI"
27 #include <sgs.h>
29 /*
30 * classic Bernstein k=33 hash function
31 *
32 * This routine is to be used for internal hashing of strings. It's not
33 * to be confused with elf_hash() which is the required ELF hashing
34 * tool for ELF structures.
35 */
36 uint_t
37 sgs_str_hash(const char *str)
38 {
39     uint_t    hash = 5381;
40     int       c;
42     while ((c = *str++) != 0)
43         hash = ((hash << 5) + hash) + c; /* hash * 33 + c */
44     return (hash);
45 }
unchanged_portion_omitted_
```

```
new/usr/src/cmd/sgs/crle/Makefile.com
```

```
*****  
1965 Sun Jul 14 19:11:56 2019  
new/usr/src/cmd/sgs/crle/Makefile.com  
11461 should use a native link-editor during the build  
11463 SUNWold has passed its use-by date  
11464 cmd/sgs/tools should contain tools, not common code  
11465 sgsmsg should be built with the rest of the build tools  
*****
```

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28 #
```

```
30 PROG= crle  
  
32 include $(SRC)/cmd/Makefile.cmd  
33 include $(SRC)/cmd/sgs/Makefile.com  
  
35 COMOBJ= config.o crle.o depend.o dump.o \  
36 inspect.o hash.o print.o util.o  
37 BLTOBJ= msg.o  
38 SGSCOMMONOBJ= alist.o  
38 TOOLSOBJ= alist.o
```

```
40 OBJS= $(BLTOBJ) $(COMOBJ) $(SGSCOMMONOBJ)  
40 OBJS= $(BLTOBJ) $(COMOBJ) $(TOOLSOBJ)
```

```
42 MAPFILE= $(MAPFILE.NGB)  
43 MAPOPT= $(MAPFILE:%%=-M%)
```

```
45 # not linted  
46 SMATCH=off
```

```
48 CPPFLAGS += -I$(SRC)/common/sgsrtcid -I$(SRC)/uts/$(ARCH)/sys \  
48 CPPFLAGS += -I$(SRC)/common/sgsrtcid -I$(SRCBASE)/uts/$(ARCH)/sys \  
49 -D_EXTENSIONS  
50 LDFLAGS = '-R$ORIGIN/../lib'  
51 LDFLAGS64 = '-R$ORIGIN/../../lib/$(MACH64)'  
52 LDFLAGS += $(VERSREF) $(MAPOPT) $(LDFLAGS) $(ZNOLAZYLOAD)  
53 LDLIBS += -lelf $(CONVLIBDIR) -lconv  
52 LDFLAGS += $(VERSREF) $(CC_USE_PROTO) $(MAPOPT) \  
53 $(LDFLAGS) $(ZNOLAZYLOAD)
```

```
1
```

```
new/usr/src/cmd/sgs/crle/Makefile.com
```

```
54 LDLIBS += -lelf $(CONVLIBDIR) $(CONV_LIB) $(DLLIB)  
55 BLTDEFS= msg.h  
56 BLTDATA= msg.c  
57 BLTMESG= $(SGMSGDIR)/crle  
  
59 BLTFILES= $(BLTDEFS) $(BLTDATA) $(BLTMESG)  
61 SGMSGCOM= ./common/crle.msg  
62 SGMSGTARG= $(SGMSGCOM)  
63 SGMSGALL= $(SGMSGCOM)  
  
65 SGMSGFLAGS += -h $(BLTDEFS) -d $(BLTDATA) -m $(BLTMESG) -n crle_msg  
67 SRCS= $(COMOBJ:%.o=../common/%.c) $(BLTDATA) \  
68 $(COMMON:%.o=$(SGSCOMMON)/%.c)  
69 $(TOOLSOBJ:%.o=$(SGSTOOLS)/common/%.c)  
  
70 CLEANFILES += $(BLTFILES)
```

```
2
```

new/usr/src/cmd/sgs/crle/Makefile.targ

1606 Sun Jul 14 19:11:56 2019

new/usr/src/cmd/sgs/crle/Makefile.targ

11461 should use a native link-editor during the build

11463 SUNWnld has passed its use-by date

11464 cmd/sgs/tools should contain tools, not common code

11465 sgsmg should be built with the rest of the build tools

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25 #

27 %.o:      ../../common/%.c
28         $(COMPILE.c) $<
29         $(POST_PROCESS_O)

31 %.o:      $(SGSCOMMON)/%.c
31 %.o:      $(SGSTOOLS)/common/%.c
32         $(COMPILE.c) $<
33         $(POST_PROCESS_O)

35 install \
36 package:    all $(ROOTPROG)

38 all:        $(PROG)

40 $(PROG):    $(OBJS) $(MAPFILE)
41         $(LINK.c) -o $@ $(OBJS) $(LDLIBS)
42         $(POST_PROCESS)

44 clean:
45         $(RM) $(OBJS) $(CLEANFILES)

47 delete:
48         $(RM) $(PROG)

50 include     $(SRC)/cmd/Makefile.targ
51 include     $(SRC)/cmd/sgs/Makefile.targ

53 # Derived source and header files (messaging).

55 catalog:    $(BLTMSG)

57 chkmsg:     $(SRCS)
```

1

new/usr/src/cmd/sgs/crle/Makefile.targ

58 sh \$(CHKMSG) \$(CHKMSGFLAGS) \$(SRCS)

60 \$(BLTDEFS) + \

61 \$(BLTDATA) + \

62 \$(BLTMSG) : \$(SGMSGALL)

63 \$(SGMSG) \$(SGMSGFLAGS) \$(SGMSGALL)

2

```
*****
1452 Sun Jul 14 19:11:57 2019
new/usr/src/cmd/sgs/dump/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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28 #

30 PROG=          dump
31
32 include      $(SRC)/cmd/Makefile.cmd
33 include      $(SRC)/cmd/sgs/Makefile.com
34
35 COMOJBS=      dump.o          fcns.o
36
37 SRCS=        $(COMOJBS:.o=../common/%.c)
38
39 OJBS =        $(COMOJBS)
40 .PARALLEL:    $(OJBS)
41
42 CPPFLAGS +=   -D__EXTENSIONS__
43 LLDFLAGS =    '$(LDPASS)-R$$ORIGIN/../../lib'
44 LLDFLAGS64 =  '$(LDPASS)-R$$ORIGIN/../../../../lib/$(MACH64)'
45 LDFLAGS +=    $(LDLFLAGS)
46
47 CERRWARN +=   -_GCC=-Who-uninitialized
48
49 SMOFF += indenting
50
51 LDLIBS +=     $(CONVLIBDIR) -lconv $(ELFLIBDIR) -lelf
52 LDLIBS +=     $(CONVLIBDIR) $(CONV_LIB) $(ELFLIBDIR) -lelf
```

```
new/usr/src/cmd/sgs/elfdump/Makefile.com
```

```
*****
2316 Sun Jul 14 19:11:57 2019
new/usr/src/cmd/sgs/elfdump/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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26 #

28 PROG=      elfdump

30 include      $(SRC)/cmd/Makefile.cmd
31 include      $(SRC)/cmd/sgs/Makefile.com

33 COMOBJ =      main.o          corenote.o \
34             dwarf.o         struct_layout.o \
35             struct_layout_i386.o   struct_layout_amd64.o \
36             struct_layout_sparc.o  struct_layout_sparcv9.o

38 COMOBJ32 =    elfdump32.o fake_shdr32.o

40 COMOBJ64 =    elfdump64.o fake_shdr64.o

42 SGSCOMMONOBJ = leb128.o
42 TOOLOBJ =    leb128.o

44 BLTOBJ =      msg.o

46 OBJS=        $(BLTOBJ) $(COMOBJ) $(COMOBJ32) $(COMOBJ64) $(SGSCOMMONOBJ)
46 OBJS=        $(BLTOBJ) $(COMOBJ) $(COMOBJ32) $(COMOBJ64) $(TOOLOBJ)

48 MAPFILE=      $(MAPFILE.NGB)
49 MAPOPT=      $(MAPFILE:%=-M%)

51 CPPFLAGS=     -I. -I../../../include -I../../include/$(MACH) \
52             -I$(SRC)/lib/libc/inc -I$(SRC)/uts/$(ARCH)/sys \
52             -I$(SRCBASE)/lib/libc/inc -I$(SRCBASE)/uts/$(ARCH)/sys \
53             $(CPPFLAGS.master) -I$(ELFCAP)
54 LLDFLAGS =    $(VAR_ELF_DUMP_LLD_FLAGS)
55 LLDFLAGS64 =  $(VAR_ELF_DUMP_LLD_FLAGS64)
```

```
1
```

```
new/usr/src/cmd/sgs/elfdump/Makefile.com
```

```
56 LDFLAGS +=      $(VERSREF) $(MAPOPT) $(LLDFLAGS)
57 LDLIBS +=       $(ELFLIBDIR) -lelf $(LDBGLIBDIR) -llddbg \
58                   $(CONVLIBDIR) -lconv
56 LDFLAGS +=      $(VERSREF) $(CC_USE_PROTO) $(MAPOPT) $(LLDFLAGS)
57 LDLIBS +=       $(ELFLIBDIR) -lelf $(LDBGLIBDIR) $(LDBG_LIB) \
58                   $(CONVLIBDIR) $(CONV_LIB)
58
60 CERRWARN +=    -_gcc=-Wno-uninitialized
62 # not linted
63 SMATCH=off
65 BLTDEFS =      msg.h
66 BLTDATA =      msg.c
67 BLTMESG =      $(SGMSGDIR)/elfdump
69 BLTFILES =     $(BLTDEFS) $(BLTDATA) $(BLTMESG)
71 SGMSGCOM =     ../../common/elfdump.msg
72 SGMSGTARG =    $(SGMSGCOM)
73 SGMSGALL =    $(SGMSGCOM)
74 SGMSGFLAGS += -h $(BLTDEFS) -d $(BLTDATA) -m $(BLTMESG) -n elfdump_msg
76 SRCS =         $(COMOBJ:%.o=../../common/%.c) \
77             $(COMOBJ32:%32.o=../../common/%.c) \
78             $(SGSCOMMONOBJ:%.o=$(SGSCOMMON)/%.c) $(BLTDATA)
78             $(TOOLOBJ:%.o=../../tools/common/%.c) $(BLTDATA)
80 CLEANFILES +=  $(BLTFILES) gen_struct_layout
```

```
2
```

```
new/usr/src/cmd/sgs/elfdump/Makefile.targ
```

```
*****  
2667 Sun Jul 14 19:11:57 2019  
new/usr/src/cmd/sgs/elfdump/Makefile.targ  
11461 should use a native link-editor during the build  
11463 SUNWold has passed its use-by date  
11464 cmd/sgs/tools should contain tools, not common code  
11465 sgsmg should be built with the rest of the build tools  
*****
```

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28 #  
  
30 %.o:      ./common/%.c  
31      $(COMPILE.c) -o $@ $<  
32      $(POST_PROCESS_O)  
  
34 %32.o:   ./common/%.c  
35      $(COMPILE.c) -o $@ $<  
36      $(POST_PROCESS_O)  
  
38 %64.o:   ./common/%.c  
39      $(COMPILE.c) -D_ELF64 -o $@ $<  
40      $(POST_PROCESS_O)  
  
42 %.o:      $(SGSCOMMON)/%.c  
43      $(SGSTOOLS)/common/%.c  
44      $(COMPILE.c) -o $@ $<  
        $(POST_PROCESS_O)  
  
46 all:      $(PROG)  
  
48 $(PROG):    $(OBJS) $(MAPFILE) check_struct_layout  
49      $(LINK.c) -o $@ $(OBJS) $(LDLIBS)  
50      $(POST_PROCESS)  
  
52 check_struct_layout: gen_struct_layout gen_layout_obj.o  
53      sed -e '/^#include <struct_layout.h>/q' \  
54      ./common/struct_layout_$(ARCH).c | sed -e '$$d' \  
55      > struct_layout_$(ARCH).tmp  
56      ./gen_struct_layout gen_layout_obj.o $(ARCH) \  
57      >> struct_layout_$(ARCH).tmp
```

```
1
```

```
new/usr/src/cmd/sgs/elfdump/Makefile.targ
```

```
58      @diff -u struct_layout_$(ARCH).tmp \  
59          ..common/struct_layout_$(ARCH).c ||\  
60      { echo "Error: struct_layout_$(ARCH).c needs update!" ; exit 1; }  
61      touch $@  
  
63 # We need CTF data in this object.  
64 gen_layout_obj.o := CFLAGS += $(CTF_FLAGS)  
65 gen_layout_obj.o := CFLAGS64 += $(CTF_FLAGS)  
66 gen_layout_obj.o := POST_PROCESS_O = $(CTFCONVERT_O)  
  
68 gen_struct_layout:      ./common/gen_struct_layout.c  
69      $(NATIVECC) $(NATIVE_CFLAGS) -o $@ \  
70          ./common/gen_struct_layout.c -lctf  
  
72 clean:  
73      $(RM) $(OBJS) $(CLEANFILES) gen_struct_layout \  
74          check_struct_layout gen_layout_obj.o \  
75          struct_layout_$(ARCH).tmp  
  
77 delete:  
78      $(RM) $(PROG)  
  
80 package \  
81 install:      all $(VAR_SGSBINPROG) $(VAR_SGCCSLINK)  
83 include       $(SRC)/cmd/Makefile.targ  
84 include       $(SRC)/cmd/sgs/Makefile.targ  
  
86 # Derived source and header files (messaging).  
88 catalog:      $(BLTMESG)  
90 chkmsg:       $(SRCS)  
91      sh $(CHKMSG) $(CHKMSGFLAGS) $(SRCS)  
  
93 $(BLTDEFS) + \  
94 $(BLTDATA) + \  
95 $(BLTMESG):   $(SGSMMSGALL)  
96      $(SGSMMSG) $(SGSMMSGFLAGS) $(SGSMMSGALL)
```

```
2
```

new/usr/src/cmd/sgs/elfedit/Makefile.com

```
*****
2112 Sun Jul 14 19:11:58 2019
new/usr/src/cmd/sgs/elfedit/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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29 PROG=      elfedit
31 include    $(SRC)/cmd/Makefile.cmd
32 include    $(SRC)/cmd/sgs/Makefile.com

34 COMOBJ =    elfedit.o sys.o util.o elfconst.o
36 COMOBJ32 =  elfedit_machelf32.o util_machelf32.o
38 COMOBJ64 =  elfedit_machelf64.o util_machelf64.o
40 BLTOBJ =   msg.o
42 OJBS=       $(BLTOBJ) $(COMOBJ) $(COMOBJ32) $(COMOBJ64)
44 MAPFILE=    ./common/mapfile-vers
46 CPPFLAGS=-I. -I../../../include -I../../../include/$(MACH) \
47 -I$(SRC)/lib/libc/include -I$(SRC)/uts/$(ARCH)/sys \
48 -I$(SRCBASE)/lib/libc/include -I$(SRCBASE)/uts/$(ARCH)/sys \
49 $(CPPFLAGS.master) -I$(BLFCAP)
50 LLDFLAGS =  $(VAR_ELFEDIT_LLDFLAGS)
51 LLDFLAGS += $(VERSREF) -M$(MAPFILE) $(LLDFLAGS)
52 LDLIBS +=   $(ELFLIBDIR) -lelf $(LDBGLIBDIR) -llddbg \
53           $(CONVLIBDIR) -lconv -ltecla
51 LDFLAGS += $(VERSREF) $(CC_USE_PROTO) -M$(MAPFILE) $(LLDFLAGS)
52 LDLIBS +=   $(ELFLIBDIR) -lelf $(LDBGLIBDIR) $(LDBG_LIB) \
53           $(CONVLIBDIR) $(CONV_LIB) -ltecla
```

1

new/usr/src/cmd/sgs/elfedit/Makefile.com

```
55 CERRWARN +=      -_gcc=-Wno-switch
56 CERRWARN +=      -_gcc=-Wno-uninitialized
58 BLTDEFS =        msg.h
59 BLTDATA =        msg.c
60 BLTMESG =        $(SGSMGDIR)/elfedit
62 BLTFILES =       $(BLTDEFS) $(BLTDATA) $(BLTMESG)
64 SGSMGCOM =       ../../common/elfedit.msg
65 SGSMGTARG =      $(SGSMGCOM)
66 SGSMGCALL =      $(SGSMGCOM)
67 SGSMGFLAGS +=    -h $(BLTDEFS) -d $(BLTDATA) -m $(BLTMESG) -n elfedit_msg
69 SRCS =           $(COMOBJ:.o=../common/%.c) \
70 $(COMOBJ32:.o=../common/%.c) \
71 $(BLTDATA)
73 CLEANFILES +=   $(BLTFILES)
```

2

new/usr/src/cmd/sgs/elfedit/Makefile.targ

```
*****
1742 Sun Jul 14 19:11:58 2019
new/usr/src/cmd/sgs/elfedit/Makefile.targ
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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27 %.o:      ./common/%.c
28           $(COMPILE.c) -o $@ $<
29           $(POST_PROCESS_O)

31 %32.o:   ./common/%.c
32           $(COMPILE.c) -o $@ $<
33           $(POST_PROCESS_O)

35 %64.o:   ./common/%.c
36           $(COMPILE.c) -D_ELF64 -o $@ $<
37           $(POST_PROCESS_O)

39 %.o:      $(SGSCOMMON)/%.c
40           $(SGSTOOLS)/common/%.c
41           $(COMPILE.c) -o $@ $<
42           $(POST_PROCESS_O)

44 $(PROG):    $(OBJS) $(MAPFILE)
45           $(LINK.c) -o $@ $(OBJS) $(LDLIBS)
46           $(POST_PROCESS)

48 $(ROOTBIN64)/%: %
49           $(INS.file)

51 all:        $(PROG)

53 clean:
54           $(RM) $(OBJS) $(CLEANFILES)

56 delete:
57           $(RM) $(PROG)
```

1

new/usr/src/cmd/sgs/elfedit/Makefile.targ

```
59 install \
60 package:      all $(ROOTPROG)
62 include       $(SRC)/cmd/Makefile.targ
63 include       $(SRC)/cmd/sgs/Makefile.targ
65 # Derived source and header files (messaging).
67 catalog:      $(BLTMSG)
68           @ cd ../modules; pwd; $(MAKE) catalog
70 chkmsg:       $(SRCS)
71           sh $(CHKMSG) $(CHKMSGFLAGS) $(SRCS)
73 $(BLTDEFS) + \
74 $(BLTDATA) + \
75 $(BLTMESG):   $(SGMSGALL)
76           $(SGMSG) $(SGMSGFLAGS) $(SGMSGALL)
```

2

```
new/usr/src/cmd/sgs/elfedit/modules/Makefile.com
```

```
*****
3650 Sun Jul 14 19:11:59 2019
new/usr/src/cmd/sgs/elfedit/modules/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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27 #

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

32 CAP_LIB=    cap.so
33 CAP_OBJ=    cap_msg.o cap32.o cap64.o

35 DYN_LIB=    dyn.so
36 DYN_OBJ=    dyn_msg.o dyn32.o dyn64.o

38 EHDR_LIB=   ehdr.so
39 EHDR_OBJ=   ehdr_msg.o ehdr32.o ehdr64.o

41 PHDR_LIB=   phdr.so
42 PHDR_OBJ=   phdr_msg.o phdr32.o phdr64.o

44 SHDR_LIB=   shdr.so
45 SHDR_OBJ=   shdr_msg.o shdr32.o shdr64.o

47 STR_LIB=    str.so
48 STR_OBJ=    str_msg.o str32.o str64.o

50 SYM_LIB=    sym.so
51 SYM_OBJ=    sym_msg.o sym32.o sym64.o

53 SYMINFO_LIB= syminfo.so
54 SYMINFO_OBJ= syminfo_msg.o syminfo32.o syminfo64.o

56 ELFEDITLIBS= $(CAP_LIB) $(DYN_LIB) $(EHDR_LIB) $(PHDR_LIB) \
57           $(SHDR_LIB) $(STR_LIB) $(SYM_LIB) $(SYMINFO_LIB)
```

```
1
```

```
new/usr/src/cmd/sgs/elfedit/modules/Makefile.com
```

```
59 PICDIR=      pics
61 CAP_PICS=    $(CAP_OBJ:%.o=$(PICDIR)/%.o)
62 DYN_PICS=    $(DYN_OBJ:%.o=$(PICDIR)/%.o)
63 EHDR_PICS=   $(EHDR_OBJ:%.o=$(PICDIR)/%.o)
64 PHDR_PICS=   $(PHDR_OBJ:%.o=$(PICDIR)/%.o)
65 SHDR_PICS=   $(SHDR_OBJ:%.o=$(PICDIR)/%.o)
66 STR_PICS=    $(STR_OBJ:%.o=$(PICDIR)/%.o)
67 SYM_PICS=    $(SYM_OBJ:%.o=$(PICDIR)/%.o)
68 SYMINFO_PICS= $(SYMINFO_OBJ:%.o=$(PICDIR)/%.o)

70 LDLIBS +=    $(ELFLIBDIR) -lelf $(LDBGLIBDIR) -l11dbg \
71           $(CONVLIBDIR) -lconv -lc
70 LDLIBS +=    $(ELFLIBDIR) -lelf $(LDBGLIBDIR) $(LDBG_LIB) \
71           $(CONVLIBDIR) $(CONV_LIB) -lc

73 $(CAP_LIB):=  PICS = $(CAP_PICS)
74 $(DYN_LIB):=  PICS = $(DYN_PICS)
75 $(EHDR_LIB):= PICS = $(EHDR_PICS)
76 $(PHDR_LIB):= PICS = $(PHDR_PICS)
77 $(SHDR_LIB):= PICS = $(SHDR_PICS)
78 $(STR_LIB):=  PICS = $(STR_PICS)
79 $(SYM_LIB):=  PICS = $(SYM_PICS)
80 $(SYMINFO_LIB):= PICS = $(SYMINFO_PICS)

82 $(CAP_LIB):=  SONAME = $(CAP_LIB)
83 $(DYN_LIB):=  SONAME = $(DYN_LIB)
84 $(EHDR_LIB):= SONAME = $(EHDR_LIB)
85 $(PHDR_LIB):= SONAME = $(PHDR_LIB)
86 $(SHDR_LIB):= SONAME = $(SHDR_LIB)
87 $(STR_LIB):=  SONAME = $(STR_LIB)
88 $(SYM_LIB):=  SONAME = $(SYM_LIB)
89 $(SYMINFO_LIB):= SONAME = $(SYMINFO_LIB)

91 # All the modules use a shared mapfile
92 MAPFILES = ..../common/mapfile-vers

94 CPPFLAGS +=  -I../../../../include -I../../../../include/$(MACH) \
95           -I$(SRC)/lib/libc/inc -D_REENTRANT
95           -I../../../../srcbase/lib/libc/inc -D_REENTRANT
96 LLDFLAGS =   '-R$ORIGIN/../../../../lib'
97 LLDFLAGS64 = '-R$ORIGIN/../../../../lib/$(MACH64)'
98 LDFLAGS +=   $(LLDFLAGS)
98 LDFLAGS +=   $(CC_USE_PROTO) $(LLDFLAGS)
99 DYNFLAGS +=  $(VERSREF)

101 CERRWARN += -gcc=-Wno-switch
102 CERRWARN += -gcc=-Wno-uninitialized

104 BLTDEFS =   $(ELFEDITLIBS:.so=%_msg.h)
105 BLTDATA =   $(ELFEDITLIBS:.so=%_msg.c)
106 BLTFILES =  $(BLTDEFS) $(BLTDATA)

108 CLEANFILES += $(BLTFILES) $(PICDIR)/*
109 CLOBBERFILES += $(ELFEDITLIBS)

111 ROOTELFEDITDIR= $(ROOT)/usr/lib/elfedit
112 ROOTELFEDITDIR64= $(ROOT)/usr/lib/elfedit/$(MACH64)
113 ROOTELFEDITLIBS= $(ROOTELFEDITDIR)/$(MTARG)$(CAP_LIB) \
114           $(ROOTELFEDITDIR)/$(MTARG)$(DYN_LIB) \
115           $(ROOTELFEDITDIR)/$(MTARG)$(EHDR_LIB) \
116           $(ROOTELFEDITDIR)/$(MTARG)$(PHDR_LIB) \
117           $(ROOTELFEDITDIR)/$(MTARG)$(SHDR_LIB) \
118           $(ROOTELFEDITDIR)/$(MTARG)$(STR_LIB) \
119           $(ROOTELFEDITDIR)/$(MTARG)$(SYM_LIB) \
120           $(ROOTELFEDITDIR)/$(MTARG)$(SYMINFO_LIB)
```

```
2
```

```
123 FILEMODE=      0755
125 .PARALLEL:    $(ELFEDITLIBS)
```

```
new/usr/src/cmd/sgs/elfedit/modules/Makefile.targ
```

```
*****
```

```
3144 Sun Jul 14 19:11:59 2019
```

```
new/usr/src/cmd/sgs/elfedit/modules/Makefile.targ
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWold has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmg should be built with the rest of the build tools
```

```
*****
```

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```

```
29 $(PICDIR)/%.o: %.c
30         $(COMPILE.c) $< -o $@
31         $(POST_PROCESS_O)
```

```
33 $(PICDIR)/%.o: ./common/%.c
34         $(COMPILE.c) $< -o $@
35         $(POST_PROCESS_O)
```

```
37 $(PICDIR)/%32.o: ./common/%.c
38         $(COMPILE.c) $< -o $@
39         $(POST_PROCESS_O)
```

```
41 $(PICDIR)/%64.o: ./common/%.c
42         $(COMPILE.c) -D_ELF64 $< -o $@
43         $(POST_PROCESS_O)
```

```
46 $(CAP_LIB): $(CAP_PICS)
47         $(BUILD_SO) $(LLDFLAGS)
48         $(POST_PROCESS_SO)
```

```
50 $(DYN_LIB): $(DYN_PICS)
51         $(BUILD_SO) $(LLDFLAGS)
52         $(POST_PROCESS_SO)
```

```
54 $(EHDR_LIB): $(EHDR_PICS)
55         $(BUILD_SO) $(LLDFLAGS)
56         $(POST_PROCESS_SO)
```

```
58 $(PHDR_LIB): $(PHDR_PICS)
```

```
1
```

```
new/usr/src/cmd/sgs/elfedit/modules/Makefile.targ
```

```
59         $(BUILD_SO) $(LLDFLAGS)
60         $(POST_PROCESS_SO)
```

```
62 $(SHDR_LIB): $(SHDR_PICS)
63         $(BUILD_SO) $(LLDFLAGS)
64         $(POST_PROCESS_SO)
```

```
66 $(STR_LIB): $(STR_PICS)
67         $(BUILD_SO) $(LLDFLAGS)
68         $(POST_PROCESS_SO)
```

```
70 $(SYM_LIB): $(SYM_PICS)
71         $(BUILD_SO) $(LLDFLAGS)
72         $(POST_PROCESS_SO)
```

```
74 $(SYMINFO_LIB): $(SYMINFO_PICS)
75         $(BUILD_SO) $(LLDFLAGS)
76         $(POST_PROCESS_SO)
```

```
79 $(ROOTELFEDITDIR):
```

```
80             $(INS.dir)
82 $(ROOTELFEDITDIR64):
```

```
83             $(INS.dir)
86 $(ROOTELFEDITDIR)/%: %
87             $(INS.file)
89 $(ROOTELFEDITDIR64)/%: %
90             $(INS.file)
```

```
93 ./common/%.c: %_msg.h
```

```
95 %_msg.h %_msg.c: $(SGSMMSG) ./common/%.msg
96         $(SGSMMSG) $(SGSMMSGFLAGS) -l -h $@ -d $@ \
97             -m $(SGSMMSGDIR)/elfedit_$* -n $*_msg $<
```

```
99 # This rule causes the message catalog file to be created under
100 # sgs/messages, but does not regenerate the C or header file for the module.
101 $(SGSMMSGDIR)/elfedit_%: $(SGSMMSG) ./common/%.msg
102         $(SGSMMSG) $(SGSMMSGFLAGS) -l -m $(SGSMMSGDIR)/elfedit_$* $<
```

```
104 $(SGSMMSG):
105         @ cd $(SGSTOOLS)/$(MACH); pwd; $(MAKE) catalog
106         @ pwd
```

```
104 catalog: $(SGSMMSGDIR)/elfedit_cap \
105         $(SGSMMSGDIR)/elfedit_dyn \
106         $(SGSMMSGDIR)/elfedit_ehdr \
107         $(SGSMMSGDIR)/elfedit_phdr \
108         $(SGSMMSGDIR)/elfedit_shdr \
109         $(SGSMMSGDIR)/elfedit_str \
110         $(SGSMMSGDIR)/elfedit_sym \
111         $(SGSMMSGDIR)/elfedit_syinfo
```

```
113 chkmmsg: $(SRCS)
114         sh $(CHKMSG) -m ./common/cap.msg ./common/cap.c
115         sh $(CHKMSG) -m ./common/dyn.msg ./common/dyn.c
116         sh $(CHKMSG) -m ./common/ehdr.msg ./common/ehdr.c
117         sh $(CHKMSG) -m ./common/phdr.msg ./common/phdr.c
118         sh $(CHKMSG) -m ./common/shdr.msg ./common/shdr.c
119         sh $(CHKMSG) -m ./common/str.msg ./common/str.c
120         sh $(CHKMSG) -m ./common/sym.msg ./common/sym.c
```

```
2
```

```
new/usr/src/cmdsgs/elfedit/modules/Makefile.targ          3
121           sh $(CHKMSG) -m ./common/syminfo.msg ./common/syminfo.c
124 include      $(SRC)/lib/Makefile.targ
```

new/usr/src/cmd/sgs/elfwrap/Makefile.com

```
*****
2050 Sun Jul 14 19:12:00 2019
new/usr/src/cmd/sgs/elfwrap/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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29 PROG= elfwrap

31 include \$(SRC)/cmd/Makefile.cmd
32 include \$(SRC)/cmd/sgs/Makefile.com

34 COMOBJ = main.o

36 MACHOBJ = machine.sparc.o machine.sparcv9.o \
37 machine.i386.o machine.amd64.o

39 COMOBJ32 = elfwrap32.o
41 COMOBJ64 = elfwrap64.o

43 SGSCOMMONOBJ = alist.o
43 TOOLOJBS = alist.o

45 BLTOBJ = msg.o

47 OJBS= \$(BLTOBJ) \$(COMOBJ) \$(MACHOBJ) \$(COMOBJ32) \$(COMOBJ64) \
48 \$(SGSCOMMONOBJ)
48 \$(TOOLOJBS)

50 MAPFILES = \$(MAPFILE.NGB)
51 MAPOPTS = \$(MAPFILES:%=M%)

53 CPPFLAGS = -I. -I../common -I../../include \$(CPPFLAGS.master) -I\$(ELFCAP)
54 LLDFLAGS =
55 LLDFLAGS64 =
56 LDFLAGS += \$(VERSREF) \$(MAPOPTS) \$(LLDFLAGS)

1

new/usr/src/cmd/sgs/elfwrap/Makefile.com

```
57 LDLIBS += $(ELFLIBDIR) -lelf $(CONVLIBDIR) -lconv  
56 LDFLAGS += $(VERSREF) $(CC_USE_PROTO) $(MAPOPTS) $(LLDFLAGS)  
57 LDLIBS += $(ELFLIBDIR) -lelf $(CONVLIBDIR) $(CONV_LIB)  
  
59 CERRWARN += -fno-uninitialized  
61 BLTDEFS = msg.h  
62 BLTDATA = msg.c  
63 BLTMESG = $(SGMSGDIR)/elfwrap  
  
65 BLTFILES = $(BLTDEFS) $(BLTDATA) $(BLTMESG)  
  
67 SGMSGCOM = ../common/elfwrap.msg  
68 SGMSGTARG = $(SGMSGCOM)  
69 SGMSGALL = $(SGMSGCOM)  
70 SGMSGFLAGS += -h $(BLTDEFS) -d $(BLTDATA) -m $(BLTMESG) -n elfwrap_msg  
  
72 SRCS = $(COMOBJ:%.o=../common/%.c) ../common/machine.c \  
73 $(COMOBJ32:32.o=../common/%.c) \  
74 $(SGSCOMMONOBJ:%.o=$(SGSCOMMON)/%.c) $(BLTDATA)  
74 $(TOOLOBJ:%.o=../../tools/common/%.c) $(BLTDATA)  
  
76 CLEANFILES += $(BLTFILES)
```

2

new/usr/src/cmd/sgs/elfwrap/Makefile.targ

```
*****
2096 Sun Jul 14 19:12:00 2019
new/usr/src/cmd/sgs/elfwrap/Makefile.targ
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
*****
```

```
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27 #

29 %.o:      ../../common/%.c
30         $(COMPILE.c) -o $@ $<
31         $(POST_PROCESS_O)

33 %32.o:   ../../common/%.c
34         $(COMPILE.c) -o $@ $<
35         $(POST_PROCESS_O)

37 %64.o:   ../../common/%.c
38         $(COMPILE.c) -D_ELF64 -o $@ $<
39         $(POST_PROCESS_O)

41 %.o:      $(SSSCOMMON)/%.c
41 %.o:      $(SGSTOOLS)/common/%.c
42         $(COMPILE.c) -o $@ $<
43         $(POST_PROCESS_O)

45 %.sparc.o: ../../common/%.c
46         $(COMPILE.c) -DELFWRAP_SPARC -o $@ $<
47         $(POST_PROCESS_O)

49 %.sparcv9.o: ../../common/%.c
50         $(COMPILE.c) -DELFWRAP_SPARC -D_ELF64 -o $@ $<
51         $(POST_PROCESS_O)

53 %.i386.o: ../../common/%.c
54         $(COMPILE.c) -DELFWRAP_X86 -o $@ $<
55         $(POST_PROCESS_O)

57 %.amd64.o: ../../common/%.c
```

1

new/usr/src/cmd/sgs/elfwrap/Makefile.targ

```
58         $(COMPILE.c) -DELFWRAP_X86 -D_ELF64 -o $@ $<
59         $(POST_PROCESS_O)

61 $(PROG):      $(OBJS) $(MAPFILES)
62             $(LINK.c) -o $@ $(OBJS) $(LDLIBS)
63             $(POST_PROCESS)

65 all:          $(PROG)

67 clean:        $(RM) $(OBJS) $(CLEANFILES)

70 delete:       $(RM) $(PROG)

73 install \
74 package:     all $(ROOTPROG)

76 include       $(SRC)/cmd/Makefile.targ
77 include       $(SRC)/cmd/sgs/Makefile.targ

79 # Derived source and header files (messaging).

81 catalog:     $(BLTMESG)

83 chkmsg:      $(SRCS)
84             sh $(CHKMSG) $(CHKMSGFLAGS) $(SRCS)

86 $(BLTDEFS) + \
87 $(BLTDATA) + \
88 $(BLTMESG):   $(SGMSGALL)
89             $(SGMSG) $(SGMSGFLAGS) $(SGMSGALL)
```

2

<pre> new/usr/src/cmd/sgs/gprof/Makefile.com ***** 1715 Sun Jul 14 19:12:01 2019 new/usr/src/cmd/sgs/gprof/Makefile.com 11461 should use a native link-editor during the build 11463 SUNWnld has passed its use-by date 11464 cmd/sgs/tools should contain tools, not common code 11465 sgsmsg should be built with the rest of the build tools *****</pre> <pre> 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 2010 Sun Microsystems, Inc. All rights reserved. 23 # Use is subject to license terms. 24 # 25 # Copyright (c) 2018, Joyent, Inc. 26 # Copyright 2019 OmniOS Community Edition (OmniOSce) Association. 27 # 28 PROG= gprof 29 30 include \$(SRC)/cmd/Makefile.cmd 31 include \$(SRC)/cmd/sgs/Makefile.com 32 33 COMOJJS= gprof.o arcs.o dfn.o lookup.o calls.o \ 34 printgprof.o printlist.o readelf.o 35 36 OBJS= \$(COMOJJS) 37 BLURBS= gprof.callg.blurb gprof.flat.blurb 38 SRCS= \$(COMOJJS:%.o../../common/%.c) 39 40 INCLIST= -I../../include -I../../../include/\$(MACH) 41 DEFLIST= -DELF_OBJ -DELF 42 CPPFLAGS= \$(INCLIST) \$(DEFLIST) \$(CPPFLAGS.master) -I\$(ELFCAP) 43 CFLAGS += \$(CCVERBOSE) 44 CSTD= \$(CSTD_GNU99) 45 46 LDLIBS += \$(CONVLIBDIR) -lconv \$(ELFLIBDIR) -lelf 47 LDLIBS += \$(CONVLIBDIR) \$(CONV_LIB) \$(ELFLIBDIR) -lelf 48 CERRWARN += -gcc=-Wno-uninitialized 49 50 # not linted 51 SMATCH=off 52 53 ROOTLIBBLURB= \$(BLURBS:%=\$(ROOTSHLIBCCS)/%) 54 55 \$(ROOTLIBBLURB) := FILEMODE= 444 56 %.o: ./common/%.c 57 \$(COMPILE.c) \$<</pre>	<p>1</p> <pre> new/usr/src/cmd/sgs/gprof/Makefile.com 58 .PARALLEL: \$(OBJS)</pre>
---	--

```
*****
41241 Sun Jul 14 19:12:01 2019
new/usr/src/cmd/sgs/include/conv.h
11461 should use a native link-editor during the build
11463 SUNWORLD has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
*****
```

```

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27 * Copyright 2012 DEY Storage Systems, Inc. All rights reserved.
28 * Copyright (c) 2018, Joyent, Inc.
29 * Copyright 2016 RackTop Systems.
30 */

32 #ifndef _CONV_H
33 #define _CONV_H

35 /*
36 * Global include file for conversion library.
37 */

39 #include <stdlib.h>
40 #include <libelf.h>
41 #include <dlfcn.h>
42 #include <libld.h>
43 #include <sgs.h>
44 #include <sgsmg.h>

46 #ifdef NATIVE_BUILD
45 #include <sys/secflags.h>
48 #endif

47 #ifdef __cplusplus
48 extern "C" {
49 #endif

51 /*
52 * Configuration features available - maintained here (instead of debug.h)
53 * to save libconv from having to include debug.h which results in numerous
54 * "declared but not used or defined" lint errors.
55 */

```

```

56 #define CONF_EDLIBPATH 0x000100 /* ELF default library path */
57 #define CONF_ESLIBPATH 0x000200 /* ELF secure library path */
58 #define CONF_ADLIBPATH 0x000400 /* AOUT default library path */
59 #define CONF_ASLIBPATH 0x000800 /* AOUT secure library path */
60 #define CONF_DIRCFG 0x001000 /* directory configuration available */
61 #define CONF_OBJALT 0x002000 /* object alternatives available */
62 #define CONF_MEMRESV 0x004000 /* memory reservation required */
63 #define CONF_ENVS 0x008000 /* environment variables available */
64 #define CONF_FLTR 0x010000 /* filter information available */
65 #define CONF_FEATMSK 0xffff00 /* */

68 /*
69 * Valid flags for conv_strproc_extract_value().
70 */
71 #define CONV_SPEVX_F_NOTRIM 0x0001 /* Do not trim whitespace around '=' */
72 #define CONV_SPEVX_F_UCASE 0x0002 /* Convert value to uppercase */
73 #define CONV_SPEVX_F_NULLOK 0x0004 /* Empty ("") value is OK */

75 /*
76 * Buffer types:
77 *
78 * Many of the routines in this module require the user to supply a
79 * buffer into which the desired strings may be written. These are
80 * all arrays of characters, and might be defined as simple arrays
81 * of char. The problem with that approach is that when such an array
82 * is passed to a function, the C language considers it to have the
83 * type (char *), without any regard to its length. Not all of our
84 * buffers have the same length, and we want to ensure that the compiler
85 * will refuse to compile code that passes the wrong type of buffer to
86 * a given routine. The solution is to define the buffers as unions
87 * that contain the needed array, and then to pass the given union
88 * by address. The compiler will catch attempts to pass the wrong type
89 * of pointer, and the size of a structure/union is implicit in its type.
90 *
91 * A nice side effect of this approach is that we can use a union with
92 * multiple buffers to handle the cases where a given routine needs
93 * more than one type of buffer. The end result is a single buffer large
94 * enough to handle any of the subcases, but no larger.
95 */

97 /*
98 * Size of buffer used by conv_invalid_val():
99 *
100 * Various values that can't be matched to a symbolic definition are converted
101 * to a numeric string.
102 *
103 * The buffer size reflects the maximum number of digits needed to
104 * display an integer as text, plus a trailing null, and with room for
105 * a leading "0x" if hexadecimal display is selected.
106 *
107 * The 32-bit version of this requires 12 characters, and the 64-bit version
108 * needs 22. By using the larger value for both, we can have a single
109 * definition, which is necessary for code that is ELFCLASS independent. A
110 * nice side benefit is that it lets us dispense with a large number of 32/64
111 * buffer size definitions that build off CONV_INV_BUFSIZE, and the macros
112 * that would then be needed.
113 */
114 #define CONV_INV_BUFSIZE 22
115 typedef union {
116     char
117 } Conv_inv_buf_t;
118 /* Conv_inv_buf_t;
119 /* unchanged_portion_omitted */

334 #ifndef NATIVE_BUILD
331 /* conv_prsecflags() */

```

```

332 #define CONV_PRSECFLAGS_BUFSIZE      57
333 typedef union {
334     Conv_inv_buf_t
335     char
336 } Conv_secflags_buf_t;
341 #endif

338 /* conv_cnote_sigset() */
339 #define CONV_CNOTE_SIGSET_BUFSIZE      639
340 typedef union {
341     Conv_inv_buf_t
342     char
343 } Conv_cnote_sigset_buf_t;
344 unchanged portion omitted

749 /*
750 * Callback function for conv_str_to_c_literal(). A user supplied function
751 * of this type is called by conv_str_to_c_literal() in order to dispatch
752 * the translated output characters.
753 *
754 *     buf - Pointer to output text
755 *     n - # of characters to output
756 *     uvalue - User value argument to conv_str_to_c_literal(),
757 *             passed through without interpretation.
758 */
759 typedef void          Conv_str_to_c_literal_func_t(const void *ptr,
760                                         size_t size, void *uvalue);

762 /*
763 * Generic miscellaneous interfaces
764 */
765 extern uchar_t        conv_check_native(char **, char **);
766 extern const char    *conv_lddstub(int);
767 extern int            conv_stproc_isspace(int);
768 extern char           *conv_stproc_trim(char *);
769 extern Boolean         conv_stproc_extract_value(char *, size_t, int,
770                                         const char **);
771 extern int            conv_sys_eclass(void);
772 extern int            conv_translate_c_esc(char **);

774 /*
775 * Generic core formatting and iteration functionality
776 */
777 extern conv_iter_ret_t _conv_iter_ds(conv_iter_osabi_t, Half,
778                                         const conv_ds_t **, conv_iter_cb_t, void *,
779                                         const char *);
780 extern conv_iter_ret_t _conv_iter_ds_msg(const conv_ds_msg_t *,
781                                         conv_iter_cb_t, void *, const char *);
782 extern conv_iter_ret_t _conv_iter_vd(const Val_desc *, conv_iter_cb_t,
783                                         void *, const char *);
784 extern conv_iter_ret_t _conv_iter_vd2(conv_iter_osabi_t, Half,
785                                         const Val_desc2 *, conv_iter_cb_t, void *,
786                                         const char *);
787 extern int            conv_iter_strltol_init(const char *,
788                                         conv_strltol_uvalue_t *);
789 extern conv_iter_ret_t conv_iter_strltol(const char *, Conv_elfvalue_t, void *);
790 extern const char    *_conv_map_ds(uchar_t, Half, Conv_elfvalue_t,
791                                         const conv_ds_t **, Conv_fmt_flags_t,
792                                         Conv_inv_buf_t *, const char *);

795 /*
796 * Generic formatting interfaces.
797 */
798 extern const char    *conv_bnd_obj(uint_t, Conv_bnd_obj_buf_t *);
799 extern const char    *conv_bnd_type(uint_t, Conv_bnd_type_buf_t *);

```

```

800 extern const char    *conv_config_feat(int, Conv_config_feat_buf_t *);
801 extern const char    *conv_config_obj(ushort_t, Conv_config_obj_buf_t *);
802 extern const char    *conv_config_upm(const char *, const char *,
803                                         const char *, size_t);
804 extern const char    *conv_cnote_auxv_af(Word, Conv_fmt_flags_t,
805                                         Conv_cnote_auxv_af_buf_t *);
806 extern const char    *conv_cnote_auxv_type(Word, Conv_fmt_flags_t,
807                                         Conv_inv_buf_t *);
808 extern const char    *conv_cnote_cc_content(Lword, Conv_fmt_flags_t,
809                                         Conv_cnote_cc_content_buf_t *);
810 extern const char    *conv_cnote_errno(int, Conv_fmt_flags_t,
811                                         Conv_inv_buf_t *);
812 extern const char    *conv_cnote_fault(Word, Conv_fmt_flags_t,
813                                         Conv_inv_buf_t *);
814 extern const char    *conv_cnote_fltset(uint32_t *, int,
815                                         Conv_fmt_flags_t, Conv_cnote_fltset_buf_t *);
816 extern const char    *conv_cnote_old_pr_flags(int, Conv_fmt_flags_t,
817                                         Conv_cnote_old_pr_flags_buf_t *);
818 extern const char    *conv_cnote_pr_dmodel(Word, Conv_fmt_flags_t,
819                                         Conv_inv_buf_t *);
820 extern const char    *conv_cnote_pr_flags(int, Conv_fmt_flags_t,
821                                         Conv_cnote_pr_flags_buf_t *);
822 extern const char    *conv_cnote_proc_flag(int, Conv_fmt_flags_t,
823                                         Conv_cnote_proc_flag_buf_t *);
824 extern const char    *conv_cnote_pr_regname(Half, int, Conv_fmt_flags_t,
825                                         Conv_inv_buf_t *inv_buf);
826 extern const char    *conv_cnote_pr_stype(Word, Conv_fmt_flags_t,
827                                         Conv_inv_buf_t *);
828 extern const char    *conv_cnote_pr_what(short, short, Conv_fmt_flags_t,
829                                         Conv_inv_buf_t *);
830 extern const char    *conv_cnote_pr_why(short, Conv_fmt_flags_t,
831                                         Conv_inv_buf_t *);
832 extern const char    *conv_cnote_priv(int, Conv_fmt_flags_t,
833                                         Conv_inv_buf_t *);
834 extern const char    *conv_prsecflags(secflagset_t, Conv_fmt_flags_t,
835                                         Conv_secflags_buf_t *);
836 extern const char    *conv_cnote_psetid(int, Conv_fmt_flags_t,
837                                         Conv_inv_buf_t *);
838 extern const char    *conv_cnote_sa_flags(int, Conv_fmt_flags_t,
839                                         Conv_cnote_sa_flags_buf_t *);
840 extern const char    *conv_cnote_signal(Word, Conv_fmt_flags_t,
841                                         Conv_inv_buf_t *);
842 extern const char    *conv_cnote_si_code(Half, int, int, Conv_fmt_flags_t,
843                                         Conv_inv_buf_t *);
844 extern const char    *conv_cnote_sigset(uint32_t *, int,
845                                         Conv_fmt_flags_t, Conv_cnote_sigset_buf_t *);
846 extern const char    *conv_cnote_ss_flags(int, Conv_fmt_flags_t,
847                                         Conv_cnote_ss_flags_buf_t *);
848 extern const char    *conv_cnote_syscall(Word, Conv_fmt_flags_t,
849                                         Conv_inv_buf_t *);
850 extern const char    *conv_cnote_sysset(uint32_t *, int,
851                                         Conv_fmt_flags_t, Conv_cnote_sysset_buf_t *);
852 extern const char    *conv_cnote_fileflags(uint32_t, Conv_fmt_flags_t,
853                                         char *, size_t);
854 extern const char    *conv_cnote_filemode(uint32_t, Conv_fmt_flags_t,
855                                         char *, size_t);
856 extern const char    *conv_cnote_type(Word, Conv_fmt_flags_t,
857                                         Conv_inv_buf_t *);
858 extern const char    *conv_def_tag(Symref, Conv_inv_buf_t *);
859 extern const char    *conv_demangle_name(const char *);
860 extern const char    *conv_dl_flag(int, Conv_fmt_flags_t,
861                                         Conv_dl_flag_buf_t *);
862 extern const char    *conv_dl_info(int);
863 extern const char    *conv_dl_mode(int, int, Conv_dl_mode_buf_t *);

```

```

864 extern const char *conv_dwarf_cfa(uchar_t, Conv_fmt_flags_t,
865     Conv_inv_buf_t *);
866 extern const char *conv_dwarf_ehe(uint_t, Conv_dwarf_ehe_buf_t *);
867 extern const char *conv_dwarf_regname(Half, Word, Conv_fmt_flags_t,
868     int *, Conv_inv_buf_t *);
869 extern const char *conv_ehdr_abivers(uchar_t, Word, Conv_fmt_flags_t,
870     Conv_inv_buf_t *);
871 extern const char *conv_ehdr_class(uchar_t, Conv_fmt_flags_t,
872     Conv_inv_buf_t *);
873 extern const char *conv_ehdr_data(uchar_t, Conv_fmt_flags_t,
874     Conv_inv_buf_t *);
875 extern const char *conv_ehdr_flags(Half, Word, Conv_fmt_flags_t,
876     Conv_ehdr_flags_buf_t *);
877 extern const char *conv_ehdr_mach(Half, Conv_fmt_flags_t,
878     Conv_inv_buf_t *);
879 extern const char *conv_ehdr_osabi(uchar_t, Conv_fmt_flags_t,
880     Conv_inv_buf_t *);
881 extern const char *conv_ehdr_type(uchar_t, Half, Conv_fmt_flags_t,
882     Conv_inv_buf_t *);
883 extern const char *conv_ehdr_vers(Word, Conv_fmt_flags_t,
884     Conv_inv_buf_t *);
885 extern const char *conv_elldata_type(Elf_Type, Conv_inv_buf_t *);
886 extern const char *conv_ent_flags(ec_flags_t, Conv_ent_flags_buf_t *);
887 extern const char *conv_ent_files_flags(Word, Conv_fmt_flags_t fmt_flags,
888     Conv_ent_files_flags_buf_t *);
889 extern const char *conv_la_activity(uint_t, Conv_fmt_flags_t,
890     Conv_inv_buf_t *);
891 extern const char *conv_la_bind(uint_t, Conv_la_bind_buf_t *);
892 extern const char *conv_la_search(uint_t, Conv_la_search_buf_t *);
893 extern const char *conv_la_symbind(uint_t, Conv_la_symbind_buf_t *);
894 extern const char *conv_grphdl_flags(uint_t, Conv_grphdl_flags_buf_t *);
895 extern const char *conv_grpdesc_flags(uint_t, Conv_grpdesc_flags_buf_t *);
896 extern Isa_desc *conv_isalist(void);
897 extern const char *conv_mapfile_version(Word, Conv_fmt_flags_t,
898     Conv_inv_buf_t *);
899 extern const char *conv_phdr_flags(uchar_t, Word, Conv_fmt_flags_t,
900     Conv_phdr_flags_buf_t *);
901 extern const char *conv_phdr_type(uchar_t, Half, Word, Conv_fmt_flags_t,
902     Conv_inv_buf_t *);
903 extern const char *conv_reject_desc(Rej_desc *, Conv_reject_desc_buf_t *,
904     Half mach);
905 extern const char *conv_reloc_type(Half, Word, Conv_fmt_flags_t,
906     Conv_inv_buf_t *);
907 extern const char *conv_reloc_type_static(Half, Word, Conv_fmt_flags_t);
908 extern const char *conv_reloc_386_type(Word, Conv_fmt_flags_t,
909     Conv_inv_buf_t *);
910 extern const char *conv_reloc_amd64_type(Word, Conv_fmt_flags_t,
911     Conv_inv_buf_t *);
912 extern const char *conv_reloc_SPARC_type(Word, Conv_fmt_flags_t,
913     Conv_inv_buf_t *);
914 extern const char *conv_sec_type(uchar_t, Half, Word, Conv_fmt_flags_t,
915     Conv_inv_buf_t *);
916 extern const char *conv_seg_flags(sg_flags_t, Conv_seg_flags_buf_t *);
917 extern void conv_str_to_c_literal(const char *buf, size_t n,
918     Conv_str_to_c_literal_func_t *cb_func,
919     void *uvalue);
920 extern const char *conv_sym_info_bind(uchar_t, Conv_fmt_flags_t,
921     Conv_inv_buf_t *);
922 extern const char *conv_sym_info_type(Half, uchar_t, Conv_fmt_flags_t,
923     Conv_inv_buf_t *);
924 extern const char *conv_sym_shndx(uchar_t, Half, Half, Conv_fmt_flags_t,
925     Conv_inv_buf_t *);
926 extern const char *conv_sym_other(uchar_t, Conv_inv_buf_t *);
927 extern const char *conv_sym_other_vis(uchar_t, Conv_fmt_flags_t,
928     Conv_inv_buf_t *);
929 extern const char *conv_syminfo_boundto(Half, Conv_fmt_flags_t,

```

```

930     Conv_inv_buf_t *);
931 extern const char *conv_syminfo_flags(Half, Conv_fmt_flags_t,
932     Conv_syminfo_flags_buf_t *);
933 extern const char *conv_time(struct timeval *, struct timeval *,
934     Conv_time_buf_t *);
935 extern Uts_desc *conv_uts(void);
936 extern const char *conv_ver_flags(Half, Conv_fmt_flags_t,
937     Conv_ver_flags_buf_t *);
938 extern const char *conv_ver_index(Versym, int, Conv_inv_buf_t *);

941 /*
942  * Generic iteration interfaces.
943 */
944 extern conv_iter_ret_t conv_iter_cap_tags(Conv_fmt_flags_t, conv_iter_cb_t,
945     void *);
946 extern conv_iter_ret_t conv_iter_cap_val_hw1(Half, Conv_fmt_flags_t,
947     conv_iter_cb_t, void *);
948 extern conv_iter_ret_t conv_iter_cap_val_hw2(Half, Conv_fmt_flags_t,
949     conv_iter_cb_t, void *);
950 extern conv_iter_ret_t conv_iter_cap_val_sf1(Conv_fmt_flags_t, conv_iter_cb_t,
951     void *);

953 extern conv_iter_ret_t conv_iter_dyn_feature1(Conv_fmt_flags_t, conv_iter_cb_t,
954     void *);
955 extern conv_iter_ret_t conv_iter_dyn_flag(Conv_fmt_flags_t, conv_iter_cb_t,
956     void *);
957 extern conv_iter_ret_t conv_iter_dyn_flag1(Conv_fmt_flags_t, conv_iter_cb_t,
958     void *);
959 extern conv_iter_ret_t conv_iter_dyn_posflag1(Conv_fmt_flags_t, conv_iter_cb_t,
960     void *);
961 extern conv_iter_ret_t conv_iter_dyn_tag(conv_iter_osabi_t, Half,
962     Conv_fmt_flags_t, conv_iter_cb_t, void *);

964 extern conv_iter_ret_t conv_iter_ehdr_abivers(conv_iter_osabi_t,
965     Conv_fmt_flags_t, conv_iter_cb_t, void *);
966 extern conv_iter_ret_t conv_iter_ehdr_class(Conv_fmt_flags_t, conv_iter_cb_t,
967     void *);
968 extern conv_iter_ret_t conv_iter_ehdr_data(Conv_fmt_flags_t, conv_iter_cb_t,
969     void *);
970 extern conv_iter_ret_t conv_iter_ehdr_eident(Conv_fmt_flags_t, conv_iter_cb_t,
971     void *);
972 extern conv_iter_ret_t conv_iter_ehdr_flags(Half, Conv_fmt_flags_t,
973     conv_iter_cb_t, void *);
974 extern conv_iter_ret_t conv_iter_ehdr_mach(Conv_fmt_flags_t, conv_iter_cb_t,
975     void *);
976 extern conv_iter_ret_t conv_iter_ehdr_osabi(Conv_fmt_flags_t, conv_iter_cb_t,
977     void *);
978 extern conv_iter_ret_t conv_iter_ehdr_type(conv_iter_osabi_t, Conv_fmt_flags_t,
979     conv_iter_cb_t, void *);
980 extern conv_iter_ret_t conv_iter_ehdr_vers(Conv_fmt_flags_t, conv_iter_cb_t,
981     void *);

983 extern conv_iter_ret_t conv_iter_phdr_flags(conv_iter_osabi_t,
984     Conv_fmt_flags_t, conv_iter_cb_t, void *);
985 extern conv_iter_ret_t conv_iter_phdr_type(conv_iter_osabi_t, Conv_fmt_flags_t,
986     conv_iter_cb_t, void *);

988 extern conv_iter_ret_t conv_iter_sec_flags(conv_iter_osabi_t, Half,
989     Conv_fmt_flags_t, conv_iter_cb_t, void *);
990 extern conv_iter_ret_t conv_iter_sec_symtab(conv_iter_osabi_t,
991     Conv_fmt_flags_t, conv_iter_cb_t, void *);
992 extern conv_iter_ret_t conv_iter_sec_type(conv_iter_osabi_t, Half,
993     Conv_fmt_flags_t, conv_iter_cb_t, void *);

995 extern conv_iter_ret_t conv_iter_sym_info_bind(Conv_fmt_flags_t,
```

```

996         conv_iter_cb_t, void *);
997 extern conv_iter_ret_t conv_iter_sym_other_vis(Conv_fmt_flags_t,
998                                         conv_iter_cb_t, void *);
999 extern conv_iter_ret_t conv_iter_sym_shndx(conv_iter_osabi_t, Half,
1000                                         Conv_fmt_flags_t, conv_iter_cb_t, void *);
1001 extern conv_iter_ret_t conv_iter_sym_info_type(Half, Conv_fmt_flags_t,
1002                                         conv_iter_cb_t, void *);

1004 extern conv_iter_ret_t conv_iter_syminfo_boundto(Conv_fmt_flags_t,
1005                                         conv_iter_cb_t, void *);
1006 extern conv_iter_ret_t conv_iter_syminfo_flags(Conv_fmt_flags_t,
1007                                         conv_iter_cb_t, void *);

1009 /*
1010  * Define all class specific routines.
1011 */
1012 #if defined(_ELF64)
1013 #define conv_cap_tag          conv64_cap_tag
1014 #define conv_cap_val           conv64_cap_val
1015 #define conv_cap_val_hw1       conv64_cap_val_hw1
1016 #define conv_cap_val_hw2       conv64_cap_val_hw2
1017 #define conv_cap_val_sf1       conv64_cap_val_sf1
1018 #define conv_dyn_feature1     conv64_dyn_feature1
1019 #define conv_dyn_flag1        conv64_dyn_flag1
1020 #define conv_dyn_flag          conv64_dyn_flag
1021 #define conv_dyn_posflag1      conv64_dyn_posflag1
1022 #define conv_dyn_tag           conv64_dyn_tag
1023 #define _conv_expn_field       _conv64_expn_field
1024 #define _conv_expn_field2      _conv64_expn_field2
1025 #define conv_invalid_val       conv64_invalid_val
1026 #define conv_sec_flags          conv64_sec_flags
1027 #define conv_sec_linkinfo       conv64_sec_linkinfo
1028 #define conv_sym_value          conv64_sym_value
1029 #define conv_sym_SPARC_value   conv64_sym_SPARC_value
1030 #else
1031 #define conv_cap_tag          conv32_cap_tag
1032 #define conv_cap_val           conv32_cap_val
1033 #define conv_cap_val_hw1       conv32_cap_val_hw1
1034 #define conv_cap_val_hw2       conv32_cap_val_hw2
1035 #define conv_cap_val_sf1       conv32_cap_val_sf1
1036 #define conv_dyn_feature1     conv32_dyn_feature1
1037 #define conv_dyn_flag1        conv32_dyn_flag1
1038 #define conv_dyn_flag          conv32_dyn_flag
1039 #define conv_dyn_posflag1      conv32_dyn_posflag1
1040 #define conv_dyn_tag           conv32_dyn_tag
1041 #define _conv_expn_field       _conv32_expn_field
1042 #define _conv_expn_field2      _conv32_expn_field2
1043 #define conv_invalid_val       conv32_invalid_val
1044 #define conv_sec_flags          conv32_sec_flags
1045 #define conv_sec_linkinfo       conv32_sec_linkinfo
1046 #define conv_sym_value          conv32_sym_value
1047 #define conv_sym_SPARC_value   conv32_sym_SPARC_value
1048 #endif

1050 /*
1051  * ELFCLASS-specific core formatting functionality
1052 */
1053 extern int             _conv_expn_field(CONV_EXPN_FIELD_ARG *,
1054                                         const Val_desc *, Conv_fmt_flags_t, const char *);
1055 extern int             _conv_expn_field2(CONV_EXPN_FIELD_ARG *, uchar_t,
1056                                         Half, const Val_desc2 *, Conv_fmt_flags_t,
1057                                         const char *);
1058 extern const char        *conv_invalid_val(Conv_inv_buf_t *, Xword,
1059                                         Conv_fmt_flags_t);

1061 */

```

```

1062  * ELFCLASS-specific formatting interfaces.
1063  */
1064 extern const char        *conv_cap_tag(Xword, Conv_fmt_flags_t,
1065                                         Conv_inv_buf_t *);
1066 extern const char        *conv_cap_val(Xword, Xword, Half, Conv_fmt_flags_t,
1067                                         Conv_cap_val_buf_t *);
1068 extern const char        *conv_cap_val_hw1(Xword, Half, Conv_fmt_flags_t,
1069                                         Conv_cap_val_hw1_buf_t *);
1070 extern const char        *conv_cap_val_hw2(Xword, Half, Conv_fmt_flags_t,
1071                                         Conv_cap_val_hw2_buf_t *);
1072 extern const char        *conv_cap_val_sf1(Xword, Half, Conv_fmt_flags_t,
1073                                         Conv_cap_val_sf1_buf_t *);
1074 extern const char        *conv_dyn_flag1(Xword, Conv_fmt_flags_t,
1075                                         Conv_dyn_flag1_buf_t *);
1076 extern const char        *conv_dyn_flag(Xword, Conv_fmt_flags_t,
1077                                         Conv_dyn_flag_buf_t *);
1078 extern const char        *conv_dyn_posflag1(Xword, Conv_fmt_flags_t,
1079                                         Conv_dyn_posflag1_buf_t *);
1080 extern const char        *conv_dyn_tag(Xword, uchar_t, Half, Conv_fmt_flags_t,
1081                                         Conv_inv_buf_t *);
1082 extern const char        *conv_dyn_feature1(Xword, Conv_fmt_flags_t,
1083                                         Conv_dyn_feature1_buf_t *);
1084 extern const char        *conv_sec_flags(uchar_t osabi, Half mach, Xword,
1085                                         Conv_fmt_flags_t, Conv_sec_flags_buf_t *);
1086 extern const char        *conv_sec_linkinfo(Word, Xword, Conv_inv_buf_t *);
1087 extern const char        *conv_sym_value(Half, uchar_t, Addr, Conv_inv_buf_t *);
1088 extern const char        *conv_sym_SPARC_value(Addr, Conv_fmt_flags_t,
1089                                         Conv_inv_buf_t *);

1091 /*
1092  * Define macros for _conv_XXX() routines that accept local_sgs_msg as the
1093  * final argument. The macros hide that argument from the caller's view and
1094  * supply the SGS message array for the file from which the macro is used
1095  * in its place. This trick is used to allow these functions to access the
1096  * message strings from any source file they are called from.
1097 */
1098 #define conv_expn_field(_arg, _vdp, _fmt_flags) \
1099     _conv_expn_field(_arg, _vdp, _fmt_flags, MSG_SGS_LOCAL_ARRAY)

1101 #define conv_expn_field2(_arg, _osabi, _mach, _vdp, _fmt_flags) \
1102     _conv_expn_field2(_arg, _osabi, _mach, _vdp, _fmt_flags, \
1103                         MSG_SGS_LOCAL_ARRAY)

1105 #define conv_iter_ds(_osabi, _mach, _dsp, _func, _uvalue) \
1106     _conv_iter_ds(_osabi, _mach, _dsp, _func, _uvalue, MSG_SGS_LOCAL_ARRAY)

1108 #define conv_iter_vd(_vdp, _func, _uvalue) \
1109     _conv_iter_vd(_vdp, _func, _uvalue, MSG_SGS_LOCAL_ARRAY)

1111 #define conv_iter_vd2(_osabi, _mach, _vdp, _func, _uvalue) \
1112     _conv_iter_vd2(_osabi, _mach, _vdp, _func, _uvalue, MSG_SGS_LOCAL_ARRAY)

1114 #define conv_map_ds(_osabi, _mach, _value, _dsp, _fmt_flags, _inv_buf) \
1115     _conv_map_ds(_osabi, _mach, _value, _dsp, _fmt_flags, _inv_buf, \
1116                         MSG_SGS_LOCAL_ARRAY)

1119 #ifdef __cplusplus
1120 }
1121 __unchanged_portion_omitted_

```

new/usr/src/cmd/sgs/ld/Makefile.com

1

```
*****
1844 Sun Jul 14 19:12:02 2019
new/usr/src/cmd/sgs/ld/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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26 #

28 PROG = ld

30 include $(SRC)/cmd/Makefile.cmd
31 include $(SRC)/cmd/sgs/Makefile.com

33 COMOJBS = ld.o
34 BLTOBJ = msg.o

36 OJJS = $(BLTOBJ) $(COMOJBS)
37 .PARALLEL:

39 SRCDIR = $(SGSHOME)/ld

41 MAPFILES = $(SRCDIR)/common/mapfile-intf $(MAPFILE.NGB)
39 MAPFILES = ../common/mapfile-intf $(MAPFILE.NGB)
42 MAPOPTS = $(MAPFILES:%%=-M%)

44 LDFLAGS += $(VERSREF) $(MAPOPTS) $(VAR_LD_LLDFLAGS)
45 LDLIBS += $(LDLIBDIR) -lld $(ELFLIBDIR) -lelf \
46           $(LDDBGLIBDIR) -l1ddbg $(CONVLIBDIR) -lconv
42 LDFLAGS += $(VERSREF) $(CC_USE_PROTO) $(MAPOPTS) $(VAR_LD_LLDFLAGS)
43 LDLIBS += $(LDLIBDIR) $(LD_LIB) $(ELFLIBDIR) -lelf \
44           $(LDDBGLIBDIR) $(LDDBG_LIB) $(CONVLIBDIR) $(CONV_LIB)

48 CERRWARN += -_gcc=-Wno-switch
49 CERRWARN += -_gcc=-Who-parentheses

49 native := LDFLAGS = -R$(SGSLIBDIR) $(ZNOVERSION)
50 native := LDLIBS = -L$(SGSLIBDIR) $(LD_LIB) -lelf $(CONVLIBDIR) \
51           $(CONV_LIB)
52 native := CPPFLAGS += -DNATIVE_BUILD
```

new/usr/src/cmd/sgs/ld/Makefile.com

2

```
51 BLTDEFS= msg.h
52 BLTDATA= msg.c
53 BLTMESG= $(SGMSGDIR)/ld

55 BLTFILES= $(BLTDEFS) $(BLTDATA) $(BLTMESG)

57 SGMSGCOM= $(SRCDIR)/common/ld.msg
60 SGMSGCOM= ./common/ld.msg
58 SGMSGTARG= $(SGMSGCOM)
59 SGMSGALL= $(SGMSGCOM)
60 SGMSGFLAGS += -h $(BLTDEFS) -d $(BLTDATA) -m $(BLTMESG) -n ld_msg

62 SRCS= $(MACHOBJS:%.o=%.c) $(COMOJBS:%.o=$(SRCDIR)/common/%.c) $(BLTD)
65 SRCS= $(MACHOBJS:%.o=%.c) $(COMOJBS:%.o=../common/%.c) $(BLTDATA)

64 CLEANFILES += $(BLTFILES)

66 FILEMODE= 0755
```

```

new/usr/src/cmd/sgs/ld/Makefile.targ
*****
1526 Sun Jul 14 19:12:02 2019
new/usr/src/cmd/sgs/ld/Makefile.targ
11461 should use a native link-editor during the build
11463 SUNWld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
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28 #

30 all:      $(PROG)

32 %.o:      $(SRCDIR)/common/%.c
32 package \
33 install:   all $(VAR_SGSBINPROG) $(VAR_SGCCSLINK)

35 %.o:      ./common/%.c
33             $(COMPILE.c) $<
34             $(POST_PROCESS_O)

36 $(PROG):   $(OBJS) $(MAPFILES)
37             $(LINK.c) $(OBJS) -o $@ $(LDLIBS)
38             $(POST_PROCESS)

40 clean:
41             $(RM) $(OBJS) $(CLEANFILES)

43 delete:
44             $(RM) $(PROG)

46 include    $(SRC)/cmd/Makefile.targ
47 include    $(SRC)/cmd/sgs/Makefile.targ

52 # Special target for native builds (ie. when we need to build a version of ld
53 # to build a version of ld :-).
55 native:    $(SGSBINDIR)/$(PROG)

57 $(SGSBINDIR)/$(PROG):   $(OBJS) $(SGSBINDIR)

```

```

1
new/usr/src/cmd/sgs/ld/Makefile.targ
*****
58             $(LINK.c) $(OBJS) -o $@ $(LDLIBS)
59             $(POST_PROCESS)

49 # Derived source and header files (messaging).
51 catalog:      $(BLTMESG)
53 chkmsg:       $(SRCS)
54             sh $(CHKMSG) $(CHKMSGFLAGS) $(SRCS)
56 $(BLTDEFS) + \
57 $(BLTDATA) + \
58 $(BLTMESG):   $(SGSMMSGALL)
59             $(SGSMMSG) $(SGSMMSGFLAGS) $(SGSMMSGALL)

```

```
*****
1220 Sun Jul 14 19:12:03 2019
new/usr/src/cmd/sgs/ld/amd64/Makefile
11461 should use a native link-editor during the build
11463 SUNWld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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22 #
23 # Copyright 2007 Sun Microsystems, Inc. All rights reserved.
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25 #
26 # ident "%Z%%M% %I%      %E% SMI"
26 #

28 include      ./Makefile.com

30 LDLIBDIR =      $(LDLIBDIR64)
31 ELFDIR =        $(ELFDIR64)
32 LDDBGLIBDIR =   $(LDDBGLIBDIR64)
33 CONVLIBDIR =    $(CONVLIBDIR64)

36 VAR_SGSBINPROG= $(VAR_SGSBINPROG64)
37 VAR_SGCCSLINK= $(VAR_SGCCSLINK64)

35 VAR_LD_LLDFLAGS = \
36           $(VAR_LD_LLDFLAGS64)

38 package install:      all $(VAR_SGSBINPROG64) $(VAR_SGCCSLINK64)
39 #endif /* ! codereview */

41 .KEEP_STATE:

43 include      ./Makefile.targ
44 include      ../.././Makefile.sub.64
```

```
*****
1015 Sun Jul 14 19:12:03 2019
new/usr/src/cmd/sgs/ld/i386/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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21 #
22 #
23 #ident "%Z%%M% %I%      %E% SMI"
24 #
25 include      ./Makefile.com
26 .KEEP_STATE:
27
28 package install:      all $(VAR_SGSBINPROG) $(VAR_SGCCSLINK)
29 #endif /* ! codereview */
30
31 include      ./Makefile.targ
```

```
*****
1015 Sun Jul 14 19:12:04 2019
new/usr/src/cmd/sgs/ld/sparc/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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20 # CDDL HEADER END
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22 #
23 #ident "%Z%%M% %I%      %E% SMI"
24 #
25 include      ./Makefile.com
26 .KEEP_STATE:
27
28 package install:      all $(VAR_SGSBINPROG) $(VAR_SGCCSLINK)
29 #endif /* ! codereview */
30
31 include      ./Makefile.targ
```

```
new/usr/src/cmd/sgs/ld/sparcv9/Makefile
```

```
1
```

```
*****
```

```
1218 Sun Jul 14 19:12:04 2019
```

```
new/usr/src/cmd/sgs/ld/sparcv9/Makefile
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWold has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmsg should be built with the rest of the build tools
```

```
*****
```

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25 #
26 # ident "%Z%%M% %I%      %E% SMI"
27 #
```

```
27 include      ./Makefile.com
```

```
29 LDLIBDIR =      $(LDLIBDIR64)
30 ELFDIR =        $(ELFDIR64)
31 LDDBGLIBDIR =   $(LDDBGLIBDIR64)
32 CONVLIBDIR =    $(CONVLIBDIR64)
```

```
36 VAR_SGSBINPROG= $(VAR_SGSBINPROG64)
37 VAR_SGCCSLINK= $(VAR_SGCCSLINK64)
```

```
34 VAR_LD_LLDFLAGS = \
35           $(VAR_LD_LLDFLAGS64)
```

```
37 .KEEP_STATE:
```

```
39 package install:      all $(VAR_SGSBINPROG64) $(VAR_SGCCSLINK64)
40 #endif /* ! codereview */
```

```
42 include      ./Makefile.targ
43 include      ../.././Makefile.sub.64
```

```
new/usr/src/cmd/sgs/ldd/Makefile.com
```

```
*****  
1913 Sun Jul 14 19:12:05 2019  
new/usr/src/cmd/sgs/ldd/Makefile.com  
11461 should use a native link-editor during the build  
11463 SUNWold has passed its use-by date  
11464 cmd/sgs/tools should contain tools, not common code  
11465 sgsmsg should be built with the rest of the build tools  
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28 #  
  
30 PROG= ldd  
  
32 include $(SRC)/cmd/Makefile.cmd  
33 include $(SRC)/cmd/sgs/Makefile.com  
  
35 COMOBJ= ldd.o  
36 BLTOBJ= msg.o  
37 SGSCOMMONOBJ= alist.o  
37 TOOLSOBJ= alist.o  
  
39 OJBS= $(BLTOBJ) $(COMOBJ) $(SGSCOMMONOBJ)  
39 OJBS= $(BLTOBJ) $(COMOBJ) $(TOOLSOBJ)  
  
41 MAPFILE= $(MAPFILE.NGB)  
42 MAPOPTS= $(MAPFILE:%%=-M%)  
  
44 CPPFLAGS += -I. -I../../include -I$(MACH) \  
45 -I$(SRC)/uts/$(ARCH)/sys \  
45 -I$(SRCBASE)/uts/$(ARCH)/sys \  
46 $(CPPFLAGS.master)  
47 LLDFLAGS = '-R$ORIGIN/../../../lib'  
48 LLDFLAGS64 = '-R$ORIGIN/../../../../lib/$(MACH64)'  
49 LDFLAGS += $(VERSREF) $(MAPOPTS) $(LLDFLAGS)  
50 LDLIBS += $(CONVLIBDIR) -lconv -lelf  
49 LDFLAGS += $(VERSREF) $(CC_USE_PROTO) $(MAPOPTS) $(LLDFLAGS)  
50 LDLIBS += $(CONVLIBDIR) $(CONV_LIB) -lelf $(DLLIB)  
  
52 SMOFF += or_vs_and
```

1

```
new/usr/src/cmd/sgs/ldd/Makefile.com
```

```
54 BLTDEFS= msg.h  
55 BLTDATA= msg.c  
56 BLTMESG= $(SGSMMSGDIR)/ldd  
  
58 BLTFILES= $(BLTDEFS) $(BLTDATA) $(BLTMESG)  
  
60 SGSMSCOM= ../../common/ldd.msg  
61 SGSMSTARG= $(SGSMSCOM)  
62 SGSMSCALL= $(SGSMSCOM)  
63 SGSMMSGFLAGS += -h $(BLTDEFS) -d $(BLTDATA) -m $(BLTMESG) -n ldd_msg  
  
65 SRCS= $(COMOBJ:%.o=../../common/%.c) $(BLTDATA) \  
66 $(SGSCOMMONOBJ:%.o=$(SGSCOMMON)/%.c)  
66 $(TOOLSOBJ:%.o=$(SGSTOOLS)/common/%.c)  
  
68 CLEANFILES += $(BLTFILES)
```

2

new/usr/src/cmd/sgs/ldd/Makefile.targ

```
*****
1536 Sun Jul 14 19:12:05 2019
new/usr/src/cmd/sgs/ldd/Makefile.targ
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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25 %.o:      ./common/%.c
26           $(COMPILE.c) $<
27           $(POST_PROCESS_O)

29 %.o:      $(SGSCOMMON)/%.c
29 %.o:      $(SGSTOOLS)/common/%.c
30           $(COMPILE.c) $<
31           $(POST_PROCESS_O)

33 all:      $(PROG)

35 clean:
36           $(RM) $(OBJS) $(CLEANFILES)

38 delete:
39           $(RM) $(PROG)

41 install \
42 package:  all $(ROOTPROG)

44 $(PROG):  $(OBJS) $(MAPFILE)
45           $(LINK.c) -o $@ $(OBJS) $(LDLIBS)
46           $(POST_PROCESS)

48 include   $(SRC)/cmd/Makefile.targ
49 include   $(SRC)/cmd/sgs/Makefile.targ

51 # Derived source and header files (messaging).
52 catalog:  $(BLTMSG)

54 chkmmsg:  $(SRCS)
55           sh $(CHKMSG) $(CHKMSGFLAGS) $(SRCS)
```

1

new/usr/src/cmd/sgs/ldd/Makefile.targ

```
57 $(BLTDEFS) + \
58 $(BLTDATA) + \
59 $(BLTMSG):      $(SGSMMSGALL)
60           $(SGSMMSG) $(SGSMMSGFLAGS) $(SGSMMSGALL)
```

2

new/usr/src/cmd/sgs/ldprof/Makefile.com

```
*****
1953 Sun Jul 14 19:12:06 2019
new/usr/src/cmd/sgs/ldprof/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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26 #

28 LIBRARY= ldprof.a
29 VERS= .1
30 COMOJBS= profile.o
31 BLTOBJ= msg.o
32 OBJECTS= $(COMOJBS) $(BLTOBJ)

34 include ../../lib/Makefile.lib
35 include ../../Makefile.com

37 ROOTLIBDIR= $(ROOT)/usr/lib/link_audit

39 MAPFILES = ./common/mapfile-vers

41 DYNFLAGS += $(CC_USE_PROTO)
41 CPPFLAGS= -I..../common -I..../include \
42 -I..../rtld/common \
43 -I..../include/$(MACH) \
44 -I$(SRC)/lib/libc/inc \
45 -I$(SRC)/uts/common/krtld \
46 -I$(SRCBASE)/lib/libc/inc \
46 -I$(SRCBASE)/uts/common/krtld \
46 -I$(SRC)/common/ssgrtcid \
47 -I$(SRC)/uts/$(ARCH)/sys \
48 -I$(SRCBASE)/uts/$(ARCH)/sys \
48 $(CPPFLAGS.master) -I$(ELFCAP)
49 CFLAGS += $(C_PICFLAGS)

51 SMOFF += indenting

53 LDLIBS += $(ZRECORD) -lmapmalloc -lc $(DLLIB)
```

1

new/usr/src/cmd/sgs/ldprof/Makefile.com

```
55 BLTDEFS= msg.h
56 BLTDATA= msg.c
57 BLTMESG= $(SGSMMSGDIR)/ldprof

59 BLTFILES= $(BLTDEFS) $(BLTDATA) $(BLTMESG)

61 SGSMSCOM= ../../common/ldprof.msg
62 SGSMSTARG= $(SGSMSCOM)
63 SGSMSCALL= $(SGSMSCOM)
64 SGSMMSGFLAGS += -h $(BLTDEFS) -d $(BLTDATA) -m $(BLTMESG) -n ldprof_msg

66 SRCS= $(COMOJBS:%.o=../../common/%.c) $(BLTDATA)

68 CLEANFILES += $(BLTFILES)
69 CLOBBERFILES += $(DYNLIB)

71 ROOTDYNLIB= $(DYNLIB:=%$(ROOTLIBDIR)%)
```

2

[new/usr/src/cmd/sgs/libconv/Makefile.com](#)

1

```

*****
3308 Sun Jul 14 19:12:06 2019
new/usr/src/cmd/sgs/libconv/Makefile.com
11461 should use a native link-editor during the build
11463 SUNworld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
*****


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26 #

28 LIBRARY = libconv.a

30 COMOBJ32 = cap_machelf32.o      dynamic_machelf32.o \
31           globals_machelf32.o    sections_machelf32.o \
32           symbols_machelf32.o   symbols_sparc_machelf32.o

34 COMOBJ64 = cap_machelf64.o      dynamic_machelf64.o \
35           globals_machelf64.o    sections_machelf64.o \
36           symbols_machelf64.o   symbols_sparc_machelf64.o

38 COMOBJ=   arch.o               audit.o \
39           c_literal.o \          config.o \
40           cap.o                data.o \
41           corenote.o \          demangle.o \
42           deftag.o \            dwarf.o \
43           d1.o                 dynamic.o \
44           dwarf_ehe.o \         entry.o \
45           elf.o                group.o \
46           globals.o \           map.o \
47           lddstub.o \           relocate.o \
48           phdr.o \              relocate_amd64.o \
49           relocate_i386.o \       sections.o \
50           relocate_sparc.o \     strproc.o \
51           segments.o \          syminfo.o \
52           symbols.o \           time.o \
53           tokens.o \           version.o

56 ELF_CAP_OBJS= elfcap.o

58 ASOBJ= vernote.o

```

new/usr/src/cmd/sgs/libconv/Makefile.com

```

60 BLTOBJS=          arch_msg.o           audit_msg.o \
61                 c_literal_msg.o \       config_msg.o \
62                 cap_msg.o          data_msg.o \
63                 corenote_msg.o \    demangle_msg.o \
64                 deftag_msg.o \     dwarf_msg.o \
65                 dl_msg.o          dynamic_msg.o \
66                 dwarf_ehe_msg.o \   entry_msg.o \
67                 elf_msg.o         group_msg.o \
68                 globals_msg.o \   lddstub_msg.o \
69                 map_msg.o          relocate_amd64_msg.o \
70                 phdr_msg.o         relocate_sparc_msg.o \
71                 relocate_i386_msg.o \ segments_msg.o \
72                 sections_msg.o \   symbols_sparc_msg.o \
73                 symbols_msg.o \   time_msg.o \
74                 syminfo_msg.o \   version_msg.o \
75

78 OBJECTS =          $(COMOBJS) $(COMOBJS32) $(COMOBJS64) $(ELFCAP_OBJS) \
79                 $(ASOBJS) $(BLTOBJS)

81 #
82 # This library is unusual since it's a static archive of PIC objects.
83 # Since static archives should never contain CTF data (regardless of
84 # whether the object code is position-independent), we disable CTF.
85 #
86 NOCTFOBJS =        $(OBJECTS)
87 CTFMERGE_LIB =    :

89 include $(SRC)/lib/Makefile.lib
90 include $(SRC)/cmd/sgs/Makefile.com

92 SRCDIR =           $(SRC)/cmd/sgs/libconv

94 #endif /* ! codereview */
95 CERRWARN += -_gcc=-Wno-type-limits
96 CERRWARN += -_gcc=-Wno-switch

98 # not linted
99 SMATCH=off

101 CTFCONVERT_O=

103 README_REVISION= $(SGSHOME)/tools/readme_revision
104 ONLDREADME=      $(SGSHOME)/tools/SUNWORLD-README
92 README_REVISION= ../../packages/common/readme_revision
93 ONLDREADME=      ../../packages/common/SUNWORLD-README

106 PICS=             $(OBJECTS:%=pics/%)

108 CPPFLAGS += -I$(SRC)/lib/libc/inc -I$(ELFCAP) \
97 CPPFLAGS += -I$(SRCBASE)/lib/libc/inc -I$(ELFCAP) \
109 CPPFLAGS += -I$(SRC)/common/sgsrtd

111 ARFLAGS=          cr

113 AS_CPPFLAGS=      -P -D_ASM $(CPPFLAGS)

115 BLTDATA=          $(BLTOBJS:%.o=%.c) $(BLTOBJS:%.o=%.h) report_bufsize.h

117 MSGSRCS=          $(COMOBJS:%.o=../common/%.c) \
118                 $(COMOBJS_NOMSG:%.o=../common/%.c) \
119                 $(ELFCOM_OBJS:%.o=$(ELFCAP)/%.c)

121 SGSMSGTARG=       $(BLTOBJS:%_msg.o=../common/%.msg)

```

```
123 CLEANFILES += $(BLTDATA) bld_vernote vernote.s
```

```
new/usr/src/cmd/sgs/libconv/Makefile.targ
```

```
*****
2858 Sun Jul 14 19:12:06 2019
new/usr/src/cmd/sgs/libconv/Makefile.targ
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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27 #

29 pics/%.o:      $(SRCDIR)/common/%.c
29 pics/%.o:      ./common/%.c
30             $(COMPILE.c) -o $@ $<
31             $(POST_PROCESS_O)

33 pics/%.o:      %.s
34             $(COMPILE.s) -o $@ $<
35             $(POST_PROCESS_O)

37 pics/%32.o:    $(SRCDIR)/common/%.c
37 pics/%32.o:    ./common/%.c
38             $(COMPILE.c) -o $@ $<
39             $(POST_PROCESS_O)

41 pics/%64.o:    $(SRCDIR)/common/%.c
41 pics/%64.o:    ./common/%.c
42             $(COMPILE.c) -D_ELF64 -o $@ $<
43             $(POST_PROCESS_O)

45 pics/elfcap.o: $(ELFCAP)/elfcap.c
46             $(COMPILE.c) -o $@ $(ELFCAP)/elfcap.c
47             $(POST_PROCESS_O)

49 # This rule generates the report_bufsize.h include file used by libconv
50 # code to ensure that their private buffer size calculations agree with
51 # the public values exposed in sgs/include/conv.h. The limit value
52 # supplied must be larger than the largest buffer used in libconv. There
53 # is little penalty for making it very large, because the header file is
54 # only included in error situations where the compilation will fail.
55 #
```

1

```
new/usr/src/cmd/sgs/libconv/Makefile.targ
```

```
56 # We make this depend on Makefile.targ, because a change to Makefile.targ
57 # can change the limit, in which case we want to force everything to rebuild.
58 report_bufsize.h:          $(SRCDIR)/Makefile.targ
59             perl $(SRC)/cmd/sgs/tools/libconv_mk_report_bufsize.pl 8000
58 report_bufsize.h:          ./Makefile.targ
59             perl ../../tools/libconv_mk_report_bufsize.pl 8000

61 $(SRCDIR)/common/%.c $(SRCDIR)/common/%_machelf.c:      %_msg.h
61             ./common/%.c ./common/%_machelf.c:      %_msg.h

63 %_msg.h + %_msg.c: $(SGSMMSG) $(SRCDIR)/common/%.msg report_bufsize.h
63 %_msg.h %_msg.c: $(SGSMMSG) ./common/%.msg report_bufsize.h
64             $(SGSMMSG) $(SGSMGFLAGS) -h $*_msg.h -d $*_msg.c \
65             -n sgs_msg_libconv_* $<

67 $(SGSMMSG):      FRC
68             @ cd $(SGSTOOLS)/$(MACH); pwd; $(MAKE) catalog
69             @ pwd

67 vernote.s:       bld_vernote $(README_REVISION) $(ONLDREADME)
68             ./bld_vernote \
69             -R `perl $(README_REVISION) $(ONLDREADME)` \
70             -r "$(RELEASE)" -o $@

72 bld_vernote:    $(SRCDIR)/common/bld_vernote.ksh
76 bld_vernote:    ./common/bld_vernote.ksh
73             $(RM) -f $@
74             cp $(SRCDIR)/common/bld_vernote.ksh $@
78             cp ./common/bld_vernote.ksh $@
75             chmod a+x $@

77 $(LIBRARY):     pics $$($PICS)
78             @ $(RM) $(LIBRARY)
79             $(AR) $(ARFLAGS) $@ $$($PICS)
80             $(POST_PROCESS_A)

82 chkmsg:         $(MSGSRCS)
83             sh $(CHKMSG) $(CHKMSGFLAGS) $(MSGSRCS)

85 catalog:
87 pics:
88             $(MKDIR) -p $@
92             -@mkdir -p $@

90 clobber:        clean
91             -$(RM) $(LIBRARY) $(CLOBBERFILES)

93 clean:
94             -$(RM) $(PICS) $(CLEANFILES)

96 delete:
98 include         $(SRC)/cmd/sgs/Makefile.targ
```

2

```
new/usr/src/cmd/sgs/libcrle/Makefile.com
```

```
*****
```

```
1740 Sun Jul 14 19:12:07 2019
```

```
new/usr/src/cmd/sgs/libcrle/Makefile.com
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWnld has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmg should be built with the rest of the build tools
```

```
*****
```

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27 #

29 LIBRARY= libcrle.a
30 VERS=
.1

32 COMOJBS= audit.o dump.o util.o
33 BLTOBJ= msg.o

35 OBJECTS= $(BLTOBJ) $(COMOJBS)

38 include $(SRC)/lib/Makefile.lib
39 include $(SRC)/cmd/sgs/Makefile.com

41 SRCDIR =
../common

43 LDLIBS +=
$(ZRECORD) -lmapmalloc $(DLLIB) -lc

45 CPPFLAGS += -I$(SRC)/lib/libc/inc -I$(SRC)/common/sgsrtcid
46 DYNFLAGS += $(VERSREF) $(CONVLIBDIR) -lconv
45 CPPFLAGS += -I$(SRCBASE)/lib/libc/inc -I$(SRC)/common/sgsrtcid
46 DYNFLAGS += $(VERSREF) $(CONVLIBDIR) -lconv $(CC_USE_PROTO)

48 BLTDEFS= msg.h
49 BLTDATA= msg.c
50 BLTMSG= $(SGSMGDIR)/libcrle

52 BLTFILES= $(BLTDEFS) $(BLTDATA) $(BLTMSG)

54 SGSMGCOM= ./common/libcrle.msg
55 SGSMGALL= $(SGSMGCOM)
56 SGSMGTTARG= $(SGSMGCOM)
```

```
1
```

```
new/usr/src/cmd/sgs/libcrle/Makefile.com
```

```
57 SGSMGFLAGS += -h $(BLTDEFS) -d $(BLTDATA) -m $(BLTMSG) -n libcrle_msg
```

```
59 LIBSRCS= $(COMOJBS:%.o=../common/%.c) $(BLTDATA)
```

```
61 CLEANFILES += $(BLTFILES)
```

```
62 CLOBBERFILES += $(DYNLIB) $(LIBLINKS)
```

```
64 ROOTDYNLIB= $(DYNLIB:%= $(ROOTLIBDIR) /%)
```

```
2
```

new/usr/src/cmd/sgs/libelf/Makefile.com

1

```
*****
3138 Sun Jul 14 19:12:07 2019
new/usr/src/cmd/sgs/libelf/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWld should pass its use-by date
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26 #
27 LIBRARY= libelf.a
28 VERS= .1
29
30 MACHOBJS=
31 COMOJBS= ar.o begin.o cntl.o cook.o \
32 data.o end.o fill.o flag.o \
33 getahdr.o getarsym.o getbase.o getdata.o \
34 getehdr.o getident.o getphdr.o getsch.o \
35 getshdr.o \
36 getphnum.o getshnum.o getshstrndx.o \
37 hash.o input.o kind.o \
38 ndxscn.o newdata.o newehdr.o newphdr.o \
39 newscn.o next.o nextscn.o output.o \
40 rand.o rawdata.o rawfile.o rawput.o \
41 strptr.o update.o error.o gelf.o \
42 clscook.o checksum.o \
43 clscook64.o newehdr64.o newphdr64.o update64.o \
44 CLASSOJBS= checksum64.o
45 BLTOBJJS= msg.o xlate.o xlate64.o
46 MISCOJBS= String.o args.o demangle.o nlist.o \
47 nplist.o
48 MISCOJBS64= nlist.o
49
50 OBJECTS= $(BLTOBJJS) $(MACHOBJS) $(COMOJBS) $(CLASSOJBS) $(MISCOJBS)
51 include $(SRC)/lib/Makefile.lib
52
53 include $(SRC)/cmd/sgs/libelf/Makefile.lib
54
55 SRCDIR= $(SRC)/cmd/sgs/libelf
56
57 #endif /* ! codereview */
58 # Use the value of M4 set in Makefile.master via Makefile.lib
```

new/usr/src/cmd/sgs/libelf/Makefile.com

2

```
60 DEMOFILES= Makefile 00README acom.c dcom.c \
61 pcom.c tpcom.c dispssyms.c
62 DEMOFILESRCDIR= $(SRCDIR)/demo
63 DEMOFILESRCDIR= ./demo
64 ROOTDEMODIRBASE= $(ROOT)/usr/demo/ELF
65 ROOTDEMODIRS= $(ROOTDEMODIRBASE)
66 include $(SRC)/cmd/sgs/Makefile.com
67
68 MAPFILES = $(SRCDIR)/common/mapfile-vers
69 MAPFILES =
70 DYNFLAGS += $(VERSREF)
71 LDLIBS += $(CONVLIBDIR) -lconv -lc
72 LDLIBS += $(CONVLIBDIR) $(CONV_LIB) -lc
73 CERRWARN += -fno-parentheses
74 CERRWARN += -fno-uninitialized
75 SMOFF += indenting
76
77 BUILD.AR= $(RM) $@ ; \
78 $(AR) q $@ '$(LORDER) $(OBJECTS:=%=$(DIR)%)' | $(TSORT) \
79 $(POST_PROCESS_A)
80
81 BLTDEFS= msg.h
82 BLTDATA= msg.c
83 BLTMESG= $(SGSMMSGDIR)/libelf
84 BLTFILES= $(BLTDEFS) $(BLTDATA) $(BLTMESG)
85
86 SGSMMSGCOM= $(SRCDIR)/common/libelf.msg
87 SGSMMSG32= $(SRCDIR)/common/libelf.32.msg
88 SGSMMSGCOM= ./common/libelf.msg
89 SGSMMSG32= ./common/libelf.32.msg
90 SGSMSTARG= $(SGSMMSGCOM)
91 SGSMMSGALL= $(SGSMMSGCOM) $(SGSMMSG32)
92
93 SGSMMSGFLAGS1= $(SGSMMSGFLAGS) -m $(BLTMESG)
94 SGSMMSGFLAGS2= $(SGSMMSGFLAGS) -h $(BLTDEFS) -d $(BLTDATA) -n libelf_msg
95
96 BLTSRCS= $(BLTOBJJS:%.o=%.c)
97 LIBSRCS= $(COMOJBS:%.o=$(SRCDIR)/common/%.c) $(MISCOJBS:%.o=$(SRCDIR)/misc/%.c)
98 LIBSRCS= $(COMOJBS:%.o=../common/%.c) $(MISCOJBS:%.o=../misc/%.c) \
99 $(MACHOBJS:%.o=%.c) $(BLTSRCS)
100
101 ROOTFS_DYNLIB= $(DYNLIB:=%$(ROOTFS_LIBDIR)%) \
102 ROOTFS_DYNLIB64= $(DYNLIB:=%$(ROOTFS_LIBDIR64)%) \
103 ROOTFS_DYNLIB := FILEMODE= 755
104 ROOTFS_DYNLIB64 := FILEMODE= 755
105
106
107
108 LIBS = $(DYNLIB)
109
110 CLEANFILES += $(BLTSRCS) $(BLTFILES)
111
112 .PARALLEL: $(LIBS)
```

new/usr/src/cmd/sgs/libelf/Makefile.targ

```
*****
2337 Sun Jul 14 19:12:08 2019
new/usr/src/cmd/sgs/libelf/Makefile.targ
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
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25 #

27 objs/%.o \
28 pics/%.o:      %.c
29             $(COMPILE.c) -o $@ $<
30             $(POST_PROCESS_O)

32 objs/%64.o \
33 pics/%64.o:    $(SRCDIR)/common/%.c
33 pics/%64.o:    ./common/%.c
34             $(COMPILE.c) -D_ELF64 -o $@ $<
35             $(POST_PROCESS_O)

37 objs/%.o \
38 pics/%.o:      $(SRCDIR)/misc/%.c
38 pics/%.o:      ./misc/%.c
39             $(COMPILE.c) -DELF -o $@ $<
40             $(POST_PROCESS_O)

42 objs/%.o \
43 pics/%.o:      $(SRCDIR)/common/%.c
43 pics/%.o:      ./common/%.c
44             $(COMPILE.c) -o $@ $<
45             $(POST_PROCESS_O)

47 all:           $(BLTSRCS) .WAIT $(LIBS) $(LIBLINKS)

49 install:
50             all .WAIT $(ROOTFS_LIBS) $(ROOTFS_LINKS) \
50             .WAIT $(ROOTDEMODIRS) .WAIT $(ROOTDEMOFILES)

49 delete:
50             $(RM) $(DYNLIB)

52 $(LIBLINKS):
```

1

new/usr/src/cmd/sgs/libelf/Makefile.targ

```
53             $(RM) $(LIBLINKS)
54             $(SYMLINK) $(DYNLIB) $(LIBLINKS)

56 CLOBBERFILES += $(LIBLINKS)

58 # include common library targets
59 #
60 include     $(SRC)/lib/Makefile.targ
61 include     $(SRC)/cmd/sgs/Makefile.targ

63 xlate.c:    $(SRCDIR)/common/xlate.m4
64             $(M4) < $(SRCDIR)/common/xlate.m4 > xlate.c
66 xlate.c:    ./common/xlate.m4
67             $(M4) < ./common/xlate.m4 > xlate.c

66 xlate64.c:  $(SRCDIR)/common/xlate64.m4
67             $(M4) < $(SRCDIR)/common/xlate64.m4 > xlate64.c
69 xlate64.c:  ./common/xlate64.m4
70             $(M4) < ./common/xlate64.m4 > xlate64.c

70 objs/msg.o \
71 pics/msg.o: msg.c

73 objs/error.o \
74 pics/error.o: msg.h

76 objs/ar.o \
77 pics/ar.o:   msg.h

79 objs/xlate.o \
80 pics/xlate.o: xlate.c

85 # Special target for native builds (ie. when we need to build a version of ld
86 # to build a version of ld :-).

88 native:      $(SGSLIBDIR)/$(LIBLINKS)

82 $(PICS):     pics

92 $(SGSLIBDIR)/$(DYNLIB): $(PICS) $(SGSLIBDIR)
93             $(BUILD_SO)
94             $(POST_PROCESS_SO)

96 $(SGSLIBDIR)/$(LIBLINKS): $(SGSLIBDIR)/$(DYNLIB)
97             -@$(RM) $(SGSLIBDIR)/$(LIBLINKS)
98             $(SYMLINK) $(DYNLIB) $(SGSLIBDIR)/$(LIBLINKS)

84 # Derived source and header files (messaging). Make sure that the sgsmg
85 # command is constructed - libelf might not be built with the whole sgs.

87 catalog:     $(BLTMSG)

89 chkmsg:       $(LIBSRCS)
90             sh $(CHKMSG) $(CHKMSGFLAGS) $(LIBSRCS)

92 $(BLTDEFS) + \
93 $(BLTDATA):   $(SGSMSTARG)
110 $(BLTDATA):  $(SGSMMSG) $(SGSMSTARG)
94             $(SGSMMSG) $(SGSMSTARG) $(SGSMMSGFLAGS2) $(SGSMSTARG)

96 $(BLTMSG):    $(SGSMMSGALL) xlate.c xlate64.c
113 $(BLTMSG):   $(SGSMMSG) $(SGSMMSGALL) xlate.c xlate64.c
97             $(SGSMMSG) $(SGSMMSGFLAGS1) $(SGSMMSGALL)
```

2

```
116 $(SGSMMSG):      FRC  
117         @ cd $(SGSTOOLS)/$(MACH); pwd; $(MAKE) catalog  
118         @ pwd
```

```
99 FRC:
```

new/usr/src/cmd/sgs/libelf/Makefile targ.64

2293 Sun Jul 14 19:12:08 2019

new/usr/src/cmd/sgs/libelf/Makefile targ.64

11461 should use a native link-editor during the build

11463 SUNWold has passed its use-by date

11464 cmd/sgs/tools should contain tools, not common code

11465 sgsmg should be built with the rest of the build tools

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24 #
25
26 objs/%.o \
27 pics/%.o: %.c
28         $(COMPILE.c) -o $@ $<
29         $(POST_PROCESS_O)
30
31 objs/%64.o \
32 pics/%64.o: ./common/%.c
33         $(COMPILE.c) -D_ELF64 -o $@ $<
34         $(POST_PROCESS_O)
35
36 objs/%.o \
37 pics/%.o: ./misc/%.c
38         $(COMPILE.c) -DELF -o $@ $<
39         $(POST_PROCESS_O)
40
41 objs/%.o \
42 pics/%.o: ./common/%.c
43         $(COMPILE.c) -o $@ $<
44         $(POST_PROCESS_O)
45
46 all:      $(BLTSRCS) .WAIT $(LIBS) $(LIBLINKS)
47
48 install:   all .WAIT $(ROOTFS_LIBS64) $(ROOTFS_LINKS64)
49
50 delete:
51         $(RM) $(DYNLIB)
52
53 $(LIBLINKS):
54         $(RM) $(LIBLINKS)
55         $(SYMLINK) $(DYNLIB) $(LIBLINKS)
56
57 CLOBBERFILES += $(LIBLINKS)
```

1

new/usr/src/cmd/sgs/libelf/Makefile targ.64

57 # include common library targets

58 #
59 include \$(SRC)/lib/Makefile.targ
60 include \$(SRC)/cmd/sgs/Makefile.targ

```
62 xlate.c:    ./common/xlate.m4
63             $(M4) < ./common/xlate.m4 > xlate.c
64 xlate64.c:   ./common/xlate64.m4
65             $(M4) < ./common/xlate64.m4 > xlate64.c
66
67 objs/msg.o \
68 pics/msg.o:  msg.c
69
70 objs/error.o \
71 pics/error.o: msg.h
72
73 objs/ar.o \
74 pics/ar.o:   msg.h
75
76 objs/xlate.o \
77 pics/xlate.o: xlate.c
```

81 # Derived source and header files (messaging). Make sure that the sgsmg
82 # command is constructed - libelf might not be built with the whole sgs.

83 catalog: \$(BLTMSG)

```
84 chkmsg:      $(LIBSRCS)
85
86 sh $(CHKMSG) $(CHKMSGFLAGS) $(LIBSRCS)
```

```
87
88 $(BLTDEFS) + \
89 $(BLTDATA):   $(SGSMGTTARG)
90 $(BLTDATA):   $(SGSMG) $(SGSMGTTARG)
91             $(SGSMG) $(SGSMGFLAGS2) $(SGSMGTTARG)
```

```
92
93 $(BLTMESG):  $(SGSMGALL) xlate.c xlate64.c
94             $(SGSMG) $(SGSMGALL) xlate.c xlate64.c
95             $(SGSMG) $(SGSMGFLAGS1) $(SGSMGALL)
96
97 $(BLTMESG):  $(SGSMG) $(SGSMGFLAGS2) $(SGSMGTTARG)
98             $(SGSMG) FRC
99             @ cd $(SGSTOOLS)/$(MACH); pwd; $(MAKE) catalog
100            @ pwd
```

```
99
100 FRC:
101
102 # 64-bit overrides
103 #
104 include ../../Makefile.sub.64
```

105 FRC:

2

```
new/usr/src/cmd/sgs/libelf/amd64/Makefile
```

```
1
```

```
*****
```

```
1148 Sun Jul 14 19:12:09 2019
```

```
new/usr/src/cmd/sgs/libelf/amd64/Makefile
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWnld has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmg should be built with the rest of the build tools
```

```
*****
```

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29 include      ./Makefile.com
31 CONVLIBDIR= $(CONVLIBDIR64)
33 MISCOBJS=   $(MISCOBJS64)
35 .KEEP_STATE:
37 install:    all .WAIT $(ROOTFS_LIBS64) $(ROOTFS_LINKS64)
39 #endif /* ! codereview */
40 include      ./Makefile.targ.64
```

```
*****
```

```
1077 Sun Jul 14 19:12:10 2019
```

```
new/usr/src/cmd/sgs/libelf/i386/Makefile
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWold has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmg should be built with the rest of the build tools
```

```
*****
```

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24 #

26 include      ../../Makefile.com

28 SGMSGTARG += $(SGMSG32)

30 .KEEP_STATE:

32 install:      all .WAIT $(ROOTFS_LIBS) $(ROOTFS_LINKS) \
33                  .WAIT $(ROOTDEMODIRS) .WAIT $(ROOTDEMOFILES)

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

```
*****
1077 Sun Jul 14 19:12:10 2019
new/usr/src/cmd/sgs/libelf/sparc/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
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24 #

26 include      ..../Makefile.com

28 SGMSGTARG += $(SGMSG32)

30 .KEEP_STATE:

32 install:      all .WAIT $(ROOTFS_LIBS) $(ROOTFS_LINKS) \
33           .WAIT $(ROOTDEMODIRS) .WAIT $(ROOTDEMOFILES)

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

```
*****
```

```
1148 Sun Jul 14 19:12:10 2019
```

```
new/usr/src/cmd/sgs/libelf/sparcv9/Makefile
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWold has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmsg should be built with the rest of the build tools
```

```
*****
```

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```
29 include      ./Makefile.com
```

```
31 CONVLIBDIR= $(CONVLIBDIR64)
```

```
33 MISCOBJS= $(MISCOBJS64)
```

```
35 .KEEP_STATE:
```

```
37 install:    all .WAIT $(ROOTFS_LIBS64) $(ROOTFS_LINKS64)
```

```
39 #endif /* ! codereview */
40 include      ./Makefile.targ.64
```

```
new/usr/src/cmd/sgs/libld/Makefile.com
```

```
*****
4825 Sun Jul 14 19:12:11 2019
new/usr/src/cmd/sgs/libld/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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29 LIBRARY = libld.a
30 VERS = .4

32 COMOJBS = debug.o globals.o util.o

34 COMOJBS32 = args32.o entry32.o exit32.o groups32.o \
35 ldentry32.o ldlibs32.o ldmachdep32.o ldmain32.o \
36 libs32.o files32.o map32.o map_core32.o \
37 map_support32.o map_v232.o order32.o outfile32.o \
38 place32.o relocate32.o resolve32.o sections32.o \
39 sunmove32.o support32.o syms32.o update32.o \
40 unwind32.o version32.o wrap32.o

42 COMOJBS64 = args64.o entry64.o exit64.o groups64.o \
43 ldentry64.o ldlibs64.o ldmachdep64.o ldmain64.o \
44 libs64.o files64.o map64.o map_core64.o \
45 map_support64.o map_v264.o order64.o outfile64.o \
46 place64.o relocate64.o resolve64.o sections64.o \
47 sunmove64.o support64.o syms64.o update64.o \
48 unwind64.o version64.o wrap64.o

50 SGSCOMMONOBJ = alist.o assfail.o findprime.o string_table.o \
51 TOOLOBJS = alist.o assfail.o findprime.o string_table.o \
52 AVLOBJ = avl.o

54 # Relocation engine objects.
55 G_MACHOBJS32 = doreloc_sparc_32.o doreloc_x86_32.o
56 G_MACHOBJS64 = doreloc_sparc_64.o doreloc_x86_64.o
```

1

```
new/usr/src/cmd/sgs/libld/Makefile.com
```

```
58 # Target specific objects (sparc/sparcv9)
59 L_SPARC_MACHOBJS32 = machrel.sparc32.o machsym.sparc32.o
60 L_SPARC_MACHOBJS64 = machrel.sparc64.o machsym.sparc64.o

62 # Target specific objects (i386/amd64)
63 E_X86_COMMONOBJ = leb128.o
63 E_X86_TOOLOBJS = leb128.o
64 L_X86_MACHOBJS32 = machrel.intel32.o
65 L_X86_MACHOBJS64 = machrel.amd64.o

67 # All target specific objects rolled together
68 E_COMMONOBJ = $(E_SPARC_COMMONOBJ) \
69 $(E_X86_COMMONOBJ)
68 E_TOOLOBJS = $(E_SPARC_TOOLOBJS) \
69 $(E_X86_TOOLOBJS)
70 L_MACHOBJS32 = $(L_SPARC_MACHOBJS32) \
71 $(L_X86_MACHOBJS32)
72 L_MACHOBJS64 = $(L_SPARC_MACHOBJS64) \
73 $(L_X86_MACHOBJS64)

76 BLTOBJ = msg.o
77 ELFCAPOBJ = elfcap.o

79 OBJECTS = $(BLTOBJ) $(G_MACHOBJS32) $(G_MACHOBJS64) \
80 $(L_MACHOBJS32) $(L_MACHOBJS64) \
81 $(COMOJBS) $(COMOJBS32) $(COMOJBS64) \
82 $(SGSCOMMONOBJ) $(E_COMMONOBJ) $(AVLOBJ) $(ELFCAPOBJ) \
82 $(TOOLOBJS) $(E_TOOLOBJS) $(AVLOBJ) $(ELFCAPOBJ)

84 include $(SRC)/lib/Makefile.lib
85 include $(SRC)/cmd/sgs/Makefile.com

87 SRCDIR = $(SGSHOME)/libld
88 MAPFILEDIR = $(SRCDIR)/common
87 SRCDIR = ./common

90 CERRWARN += -_gcc=-Wno-unused-value
91 CERRWARN += -_gcc=-Wno-parentheses
92 CERRWARN += -_gcc=-Wno-uninitialized
93 CERRWARN += -_gcc=-Wno-switch
94 CERRWARN += -_gcc=-Wno-char-subscripts
95 CERRWARN += -_gcc=-Wno-type-limits
96 $(RELEASE_BUILD)CERRWARN += -_gcc=-Wno-unused

98 SMOFF += no_if_block

100 # Location of the shared relocation engines maintained under usr/src/uts.
101 #
102 KRTLD_I386 = $(SRC)/uts/$(VAR_PLAT_i386)/krtld
103 KRTLD_AMD64 = $(SRC)/uts/$(VAR_PLAT_amd64)/krtld
104 KRTLD_SPARC = $(SRC)/uts/$(VAR_PLAT_sparc)/krtld
101 KRTLD_I386 = $(SRCBASE)/uts/$(VAR_PLAT_i386)/krtld
102 KRTLD_AMD64 = $(SRCBASE)/uts/$(VAR_PLAT_amd64)/krtld
103 KRTLD_SPARC = $(SRCBASE)/uts/$(VAR_PLAT_sparc)/krtld

107 CPPFLAGS += -DUSE_LIBLD_MALLOC -I$(SRC)/lib/libc/inc \
108 -I$(SRC)/uts/common/krtld -I$(SRC)/uts/sparc \
106 CPPFLAGS += -DUSE_LIBLD_MALLOC -I$(SRCBASE)/lib/libc/inc \
107 -I$(SRCBASE)/uts/common/krtld -I$(SRCBASE)/uts/sparc \
109 $(VAR_LIBLD_CPPFLAGS)
110 LDLIBS += $(CONVLIBDIR) -lconv $(LDBBGLIBDIR) -llddbg \
109 LDLIBS += $(CONVLIBDIR) $(CONVLIBDIR) $(LDBBGLIBDIR) $(LDBBGLIB) \
111 $(ELFLIBDIR) -lelf $(DLIB) -lc
```

2

```
113 DYNFLAGS += $(VERSREF) '-R$$ORIGIN'  
112 DYNFLAGS += $(VERSREF) $(CC_USE_PROTO) '-R$$ORIGIN'  
114 native:= DYNFLAGS += $(CONVLIBDIR)  
  
115 BLTDEFS = msg.h  
116 BLTDATA = msg.c  
117 BLTMESG = $(SGMSGDIR)/libld  
  
119 BLTFILES = $(BLTDEFS) $(BLTDATA) $(BLTMESG)  
  
121 # Due to cross linking support, every copy of libld contains every message.  
122 # However, we keep target specific messages in their own separate files for  
123 # organizational reasons.  
124 #  
125 SGMSGCOM = $(SRCDIR)/common/libld.msg  
126 SGMSGSPARC = $(SRCDIR)/common/libld.sparc.msg  
127 SGMSGINTEL = $(SRCDIR)/common/libld.intel.msg  
126 SGMSGCOM = ./common/libld.msg  
127 SGMSGSPARC = ./common/libld.sparc.msg  
128 SGMSGINTEL = ./common/libld.intel.msg  
128 SGMSGTARG = $(SGMSGCOM) $(SGMSGSPARC) $(SGMSGINTEL)  
129 SGMSGALL = $(SGMSGCOM) $(SGMSGSPARC) $(SGMSGINTEL)  
  
131 SGMSGFLAGS1 = $(SGMSGFLAGS) -m $(BLTMESG)  
132 SGMSGFLAGS2 = $(SGMSGFLAGS) -h $(BLTDEFS) -d $(BLTDATA) -n libld_msg  
  
134 CHKSRCS = $(SRC)/uts/common/krtld/reloc.h \  
135 $(COMOBJ32:%32.o=$(SRCDIR)/common/%.c) \  
136 $(L_MACHOBJS32:%32.o=$(SRCDIR)/common/%.c) \  
137 $(L_MACHOBJS64:%64.o=$(SRCDIR)/common/%.c) \  
135 CHKSRCS = $(SRCBASE)/uts/common/krtld/reloc.h \  
136 $(COMOBJ32:%32.o=../common/%.c) \  
137 $(L_MACHOBJS32:%32.o=../common/%.c) \  
138 $(L_MACHOBJS64:%64.o=../common/%.c) \  
138 $(KRTLD_I386)/doreloc.c \  
139 $(KRTLD_AMD64)/doreloc.c \  
140 $(KRTLD_SPARC)/doreloc.c  
  
142 LIBSRCs = $(SGSCOMMONOBJ:%.o=$(SGSCOMMON)/%.c) \  
143 $(SGSCOMMONOBJ:%.o=$(SGSCOMMON)/%.c) \  
144 $(COMOBJ:%.o=$(SRCDIR)/common/%.c) \  
143 LIBSRCs = $(TOOLOJBS:%.o=$(SGSTOOLS)/common/%.c) \  
144 $(E_TOOLOJBS:%.o=$(SGSTOOLS)/common/%.c) \  
145 $(COMOBJ:%.o=../common/%.c) \  
145 $(AVLOBJJS:%.o=$(VAR_AVLDIR)/%.c) \  
146 $(BLTDATA)  
  
148 CLEANFILES += $(BLTFILES)  
149 ClobberFILES += $(DYNLIB) $(LIBLINKS)  
  
151 ROOTFS_DYNLIB = $(DYNLIB:=%$(ROOTFS_LIBDIR)/%)
```

```
new/usr/src/cmd/sgs/libld/Makefile.targ
```

```
*****
3044 Sun Jul 14 19:12:11 2019
new/usr/src/cmd/sgs/libld/Makefile.targ
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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```

```
29 pics/%.o:      $(SRCDIR)/common/%.c
29 pics/%.o:      ./common/%.c
30             $(COMPILE.c) -o $@ $<
31             $(POST_PROCESS_O)
```

```
33 pics/%32.o:    $(SRCDIR)/common/%.c
33 pics/%32.o:    ./common/%.c
34             $(COMPILE.c) -o $@ $<
35             $(POST_PROCESS_O)
```

```
37 pics/%64.o:    $(SRCDIR)/common/%.c
37 pics/%64.o:    ./common/%.c
38             $(COMPILE.c) -o $@ -D_ELF64 $<
39             $(POST_PROCESS_O)
```

```
41 pics/%32.o:    %.c
42             $(COMPILE.c) -o $@ $<
43             $(POST_PROCESS_O)
```

```
45 pics/%64.o:    %.c
46             $(COMPILE.c) -o $@ -D_ELF64 $<
47             $(POST_PROCESS_O)
```

```
49 pics/%.o:      $(SGSCOMMON)/%.c
49 pics/%.o:      $(SGSTOOLS)/common/%.c
50             $(COMPILE.c) -o $@ $<
51             $(POST_PROCESS_O)
```

```
53 pics/%.o:      $(VAR_AVLDIR)/%.c
54             $(COMPILE.c) -o $@ $<
```

```
1
```

```
new/usr/src/cmd/sgs/libld/Makefile.targ
```

```
55             $(POST_PROCESS_O)

57 #
58 # We use the shared elfcap code under usr/src/common/elfcap
59 #
60 pics/elfcap.o:  $(ELFCAP)/elfcap.c
61             $(COMPILE.c) -o $@ $(ELFCAP)/elfcap.c
62             $(POST_PROCESS_O)

64 # Rules for compiling the shared relocation engines (doreloc.c) maintained
65 # under usr/src/uts. To support cross linking, We compile and link
66 # all of these into every copy of libld. Each one requires a separate rule:
67 #   - The source files are in different subtrees under usr/src/uts
68 #   - The output file needs to include the platform name to
69 #     keep the object files from colliding
70 # The DO_RELOC_LIBLD definition is needed to generate the libld version
71 # of the doreloc code.
72 #
73 pics/%_x86_32.o: $(KRTLD_I386)/%.c
74             $(COMPILE.c) -o $@ -DDO_RELOC_LIBLD $<
75             $(POST_PROCESS_O)

77 pics/%_x86_64.o: $(KRTLD_AMD64)/%.c
78             $(COMPILE.c) -o $@ -D_ELF64 -DDO_RELOC_LIBLD $<
79             $(POST_PROCESS_O)

81 pics/%_sparc_32.o: $(KRTLD_SPARC)/%.c
82             $(COMPILE.c) -o $@ -DDO_RELOC_LIBLD $<
83             $(POST_PROCESS_O)

85 pics/%_sparc_64.o: \
86             $(KRTLD_SPARC)/%.c
87             $(COMPILE.c) -o $@ -D_ELF64 -DDO_RELOC_LIBLD $<
88             $(POST_PROCESS_O)

91 $(LIBLINKS):
92             $(RM) $@; $(SYMLINK) $(DYNLIB) $@
94 delete:
95             $(RM) $(DYNLIB)

97 # Special target for native builds (ie. when we need to build a version of ld
98 # to build a version of ld :-).

100 native:        $(SGSLIBDIR)/$(LIBLINKS)
101 $(PICS):       pics
102 $(SGSLIBDIR)/$(DYNLIB): $(PICS) $(SGSLIBDIR)
103             $(BUILD_SO)
104             $(POST_PROCESS_SO)

108 $(SGSLIBDIR)/$(LIBLINKS): $(SGSLIBDIR)/$(DYNLIB)
109             @$(RM) $(SGSLIBDIR)/$(LIBLINKS)
110             $(SYMLINK) $(DYNLIB) $(SGSLIBDIR)/$(LIBLINKS)

109 include        $(SRC)/lib/Makefile.targ
110 include        $(SRC)/cmd/sgs/Makefile.targ

102 # Derived source and header files (messaging).
104 catalog:       $(BLTMESG)

106 chkmmsg:      $(LIBSRCS) $(CHKSRC)
107             sh $(CHKMSG) $(CHKMSGFLAGS) $(LIBSRCS) $(CHKSRC)
```

```
2
```



```
*****
2616 Sun Jul 14 19:12:12 2019
new/usr/src/cmd/sgs/liblddb/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
*****
```

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26 #

28 LIBRARY = liblddb.a
29 VERS = .4

31 COMOJBS = args.o audit.o basic.o debug.o \
32 syminfo.o tls.o

34 COMOJBS32 = bindings32.o cap32.o dlfncns32.o dynamic32.o \
35 elf32.o entry32.o files32.o got32.o \
36 libs32.o map32.o move32.o phdr32.o \
37 relocate32.o sections32.o segments32.o shdr32.o \
38 statistics32.o support32.o syms32.o unused32.o \
39 util32.o version32.o

41 COMOJBS64 = bindings64.o cap64.o dlfncns64.o dynamic64.o \
42 elf64.o entry64.o files64.o got64.o \
43 libs64.o map64.o move64.o phdr64.o \
44 relocate64.o sections64.o segments64.o shdr64.o \
45 statistics64.o support64.o syms64.o unused64.o \
46 util64.o version64.o

48 BLTOBJ = msg.o

50 SGSCOMMONOBJ = alist.o
50 TOOLOBJ = alist.o

52 OBJECTS = $(BLTOBJ) $(COMOJBS) $(COMOJBS32) $(COMOJBS64) $(SGSCOMMONOBJ)
52 OBJECTS = $(BLTOBJ) $(COMOJBS) $(COMOJBS32) $(COMOJBS64) $(TOOLOBJ)

55 include $(SRC)/lib/Makefile.lib
56 include $(SRC)/cmd/sgs/Makefile.com
```

```

58 SRCDIR = $(SGSHOME)/liblddb
59 MAPFILEDIR = $(SRCDIR)/common
58 SRCDIR = ./common

61 CERRWARN += -gcc=-Wno-unused-value
62 CERRWARN += -gcc=-Wno-uninitialized
63 CERRWARN += -gcc=-Wno-parentheses

65 CPPFLAGS += -I$(SRC)/lib/libc/inc
66 DYNFLAGS += $(VERSREF) '-R$ORIGIN'
67 LDLIBS += $(CONVLIBDIR) -lconv -lc
64 CPPFLAGS += -I$(SRCBASE)/lib/libc/inc
65 DYNFLAGS += $(VERSREF) $(CC_USE_PROTO) '-R$ORIGIN'
66 LDLIBS += $(CONVLIBDIR) $(CONV_LIB) -lc

68 native := DYNFLAGS += $(CONVLIBDIR)
69 native := CPPFLAGS += -DNATIVE_BUILD

69 BLTDEFS = msg.h
70 BLTDATA = msg.c
71 BLTMESG = $(SGMSGDIR)/liblddb

73 BLTFILES = $(BLTDEFS) $(BLTDATA) $(BLTMESG)

75 SGMSGCOM = $(SRCDIR)/common/liblddb.msg
77 SGMSGCOM = ./common/liblddb.msg
76 SGMSGALL = $(SGMSGCOM)
77 SGMSGTARG = $(SGMSGCOM)
78 SGMSGFLAGS += -h $(BLTDEFS) -d $(BLTDATA) -m $(BLTMESG) -n liblddb_msg

80 CHKSRCS = $(COMOJBS32:%32.o=$(SRCDIR)/common/%.c)
82 CHKSRCs = $(COMOJBS32:%32.o=../common/%.c)

82 LIBSRCs = $(COMOJBS:%.o=$(SRCDIR)/common/%.c) \
83 $(SGSCOMMONOBJ:%.o=$(SGSCOMMON)/%.c) $(BLTDATA)
84 LIBSRCs = $(COMOJBS:%.o=../common/%.c) \
85 $(TOOLOBJ:%.o=$(GSTOOLS)/common/%.c) $(BLTDATA)

85 CLEANFILES += $(BLTFILES)
86 CLOBBERFILES += $(DYNLIB) $(LIBLINKS)

88 ROOTFS_DYNLIB = $(DYNLIB:=%$(ROOTFS_LIBDIR)%)
```

new/usr/src/cmd/sgs/liblldbg/Makefile.targ

```
*****  
1730 Sun Jul 14 19:12:12 2019  
new/usr/src/cmd/sgs/liblddb/Makefile.targ  
11461 should use a native link-editor during the build  
11463 SUNWorld has passed its use-by date  
11464 cmd/sgs/tools should contain tools, not common code  
11465 sgsmmsg should be built with the rest of the build tools  
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27 #  
  
29 pics/%.o:      $(SRCDIR)/common/%.c  
29 pics/%.o:      ../../common/%.c  
30             $(COMPILE.c) -o $@ $<  
31             $(POST_PROCESS_O)  
  
33 pics/%.o:      $(SGSCOMMON)/%.c  
33 pics/%.o:      $(SGSTOOLS)/common/%.c  
34             $(COMPILE.c) -o $@ $<  
35             $(POST_PROCESS_O)  
  
37 pics/%32.o:    $(SRCDIR)/common/%.c  
37 pics/%32.o:    ../../common/%.c  
38             $(COMPILE.c) -o $@ $<  
39             $(POST_PROCESS_O)  
  
41 pics/%64.o:    $(SRCDIR)/common/%.c  
41 pics/%64.o:    ../../common/%.c  
42             $(COMPILE.c) -D_ELF64 -o $@ $<  
43             $(POST_PROCESS_O)  
  
45 $(LIBLINKS):  
46             -$(RM) $@; $(SYMLINK) $(DYNLIB) $@  
  
48 delete:  
49             $(RM) $(DYNLIB)  
  
51 # Special target for native builds (ie. when we need to build a version  
52 # to build a version of ld :-).  
  
54 native:        $(SGSLIBDIR)/$(LIBLINKS)
```

new/usr/src/cmd/sgs/libldebug/Makefile targ

```

51 $(PICS):          pics
58 $(SGSLIBDIR)/$(DYNLIB): $(PICS) $(SGSLIBDIR)
59           $(BUILD_SO)
60           $(POST_PROCESS_SO)
62 $(SGSLIBDIR)/$(LIBLINKS): $(SGSLIBDIR)/$(DYNLIB)
63           -@$(RM) $(SGSLIBDIR)/$(LIBLINKS)
64           $(SYMLINK) $(DYNLIB) $(SGSLIBDIR)/$(LIBLINKS)
65
66 include          $(SRC)/lib/Makefile.targ
67 include          $(SRC)/cmd/sgs/Makefile.targ
68
69 # Derived source and header files (messaging).
70
71 catalog:         $(BLTMESG)
72
73 chkmmsg:         $(LIBSRCS) $(CHKSRC)
74           sh $(CHKMSG) $(CHKMSGFLAGS) $(LIBSRCS) $(CHKSRC)
75
76 $(BLTDEFS) + \
77 $(BLTDATA) + \
78 $(BLTMESG):      $(SGSMSGALL)
79           $(SGSMSGG) $(SGSMSGFLAGS) $(SGSMSGALL)
80

```

2

```
*****
```

```
1435 Sun Jul 14 19:12:13 2019
```

```
new/usr/src/cmd/sgs/libldmake/Makefile.com
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWORLD has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmsg should be built with the rest of the build tools
```

```
*****
```

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29 LIBRARY= libldmake.a
30 VERS= .1
31 OBJECTS= ld_file.o lock.o

33 include $(SRC)/lib/Makefile.lib
34 include $(SRC)/cmd/sgs/Makefile.com

36 ROOTLIBDIR= $(ROOT)/opt/SUNWORLD/lib
37 ROOTLIBDIR64= $(ROOT)/opt/SUNWORLD/lib/$(MACH64)

39 SRCDIR = ../common

41 DYNFLAGS += $(CC_USE_PROTO)

41 CFLAGS += $(C_PICFLAGS)
42 CFLAGS64 += $(C_PICFLAGS64)

44 SRCS= $(OBJECTS:.o=../common/%.c)
45 LDLIBS += -lc

47 CLEANFILES +=
48 CLOBBERFILES += $(DYNLIB)

50 ROOTDYNLIB= $(DYNLIB:=%=$(ROOTLIBDIR)/%)
51 ROOTDYNLIB64= $(DYNLIB:=%=$(ROOTLIBDIR64)/%)
```

```
*****
1359 Sun Jul 14 19:12:13 2019
new/usr/src/cmd/sgs/libldstab/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
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27 #

29 LIBRARY= libldstab.a
30 VERS= .1

32 COMOJBS= stab.o
33 DUPOBJJS+=

35 OBJECTS= $(COMOJBS) $(DUPOBJJS)

37 include $(SRC)/lib/Makefile.lib
38 include $(SRC)/cmd/sgs/Makefile.com

40 SRCDIR = ./common
41 SRCBASE= ../../../../

42 CPPFLAGS += -I$(ELFCAP)

44 LDLIBS += $(CONVLIBDIR) -lconv $(ELFLIBDIR) -lelf -lc
45 DYNFLAGS += $(VERSREF)
45 LDLIBS += $(CONVLIBDIR) $(CONV_LIB) $(ELFLIBDIR) -lelf -lc
46 DYNFLAGS += $(VERSREF) $(CC_USE_PROTO)

47 SRCS= $(COMOJBS:%.o=../common/%.c)

49 CLOBBERFILES += $(DYNLIB)

51 ROOTDYNLIB= $(DYNLIB:=%=$(ROOTALIBDIR)%)
```

```
new/usr/src/cmd/sgs/libldstab/Makefile.targ
```

```
1
```

```
*****
```

```
1344 Sun Jul 14 19:12:14 2019
```

```
new/usr/src/cmd/sgs/libldstab/Makefile.targ
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWnld has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmsg should be built with the rest of the build tools
```

```
*****
```

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```

```
29 pics/%.o:      ./common/%.c
30           $(COMPILE.c) -o $@ $<
31           $(POST_PROCESS_O)
```

```
33 pics/%64.o:   ./common/%.c
34           $(COMPILE.c) -o $@ -D_ELF64 $<
35           $(POST_PROCESS_O)
```

```
37 delete:
38           -$(RM) $(DYNLIB)
```

```
40 # Special target for native builds (ie. when we need to build a version of ld
41 # to build a version of ld :-).
```

```
43 native:      $(SGSLIBDIR)/$(DYNLIB)
```

```
40 $(PICS):     pics
```

```
47 $(SGSLIBDIR)/$(DYNLIB): $(PICS) $(SGSLIBDIR)
48           $(BUILD_SO)
49           $(POST_PROCESS_SO)
```

```
42 include      $(SRC)/lib/Makefile.targ
43 include      $(SRC)/cmd/sgs/Makefile.targ
```

```
45 # Derived source and header files (messaging).
```

```
47 catalog:
```

```
49 chkmmsg:
```

```
new/usr/src/cmd/sgs/libldstab/Makefile.targ
```

```
2
51 package:
```

new/usr/src/cmd/sgs/librtld/Makefile.com

```
*****
2044 Sun Jul 14 19:12:14 2019
new/usr/src/cmd/sgs/librtld/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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29 LIBRARY= librtld.a
30 VERS= .1

32 MACHOBJS=_relocate.o
33 COMOJBS=dldump.o dynamic.o relocate.o sym.o \
34 util.o
35 BLTOBJ=msg.o

37 OBJECTS=$(BLTOBJ) $(MACHOBJS) $(COMOJBS)

40 include $(SRC)/lib/Makefile.lib
41 include $(SRC)/cmd/sgs/Makefile.com

43 SRCDIR= ./common
44 CPPFLAGS += -I../../../rtld/common -I$(SRC)/lib/libc/inc \
45 -I$(SRC)/uts/common/krtld -I$(SRC)/common/sgsrtcid \
46 -I$(SRC)/uts/sparc
47 DYNFLAGS += $(VERSREF) '-R$@$ORIGIN'
48 LDLIBS += $(CONVLIBDIR) -lconv $(ELFLIBDIR) -lelf -lc
49 CPPFLAGS += -I../../../rtld/common -I$(SRCBASE)/lib/libc/inc \
50 -I$(SRCBASE)/uts/common/krtld -I$(SRC)/common/sgsrtcid \
51 -I$(SRCBASE)/uts/sparc
52 DYNFLAGS += $(VERSREF) $(CC_USE_PROTO) '-R$@$ORIGIN'
53 LDLIBS += $(CONVLIBDIR) $(CONV_LIB) $(ELFLIBDIR) -lelf -lc

50 CERRWARN += -_gcc=-Wno-parentheses
51 CERRWARN += -_gcc=-Wno-unused-value
52 CERRWARN += -_gcc=-Wno-type-limits
53 CERRWARN += -_gcc=-Wno-uninitialized
```

1

new/usr/src/cmd/sgs/librtld/Makefile.com

```
55 BLTDEFS= msg.h
56 BLTDATA= msg.c
57 BLTMESG= $(SGSMMSGDIR)/librtld

59 BLTFILES= $(BLTDEFS) $(BLTDATA) $(BLTMESG)

61 SGSMMSGCOM= ./common/librtld.msg
62 SGSMSCALL= $(SGSMMSGCOM)
63 SGSMMSGTARG= $(SGSMMSGCOM)
64 SGSMMSGFLAGS += -h $(BLTDEFS) -d $(BLTDATA) -m $(BLTMESG) -n librtld_msg

66 MSGSRCS= $(MACHOJBS:%.o=%.c) $(COMOJBS:%.o=../common/%.c) \
67 $(BLTDATA)

69 CLEANFILES += $(BLTFILES)
70 CLOBBERFILES += $(DYNLIB) $(LIBLINKS)

72 ROOTFS_DYNLIB= $(DYNLIB:%= $(ROOTFS_LIBDIR) /%)
```

2

```
new/usr/src/cmd/sgs/librtld/Makefile.targ
```

```
*****
1466 Sun Jul 14 19:12:15 2019
new/usr/src/cmd/sgs/librtld/Makefile.targ
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
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29 pics/%.o:      ./common/%.c
30           $(COMPILE.c) -o $@ $<
31           $(POST_PROCESS_O)

33 $(LIBLINKS):
34           -$(RM) $@; $(SYMLINK) $(DYNLIB) $@

36 delete:
37           $(RM) $(DYNLIB)

39 # Special target for native builds (ie. when we need to build a version of ld
40 # to build a version of ld :-).
41 native:      $(SGSLIBDIR)/$(LIBLINKS)

43 $(PICS):      pics

46 $(SGSLIBDIR)/$(DYNLIB): $(PICS) $(SGSLIBDIR)
47           $(BUILD_SO)
48           $(POST_PROCESS_SO)

50 $(SGSLIBDIR)/$(LIBLINKS): $(SGSLIBDIR)/$(DYNLIB)
51           -@$(RM) $(SGSLIBDIR)/$(LIBLINKS)
52           $(SYMLINK) $(DYNLIB) $(SGSLIBDIR)/$(LIBLINKS)

42 include      $(SRC)/lib/Makefile.targ
43 include      $(SRC)/cmd/sgs/Makefile.targ

46 # Derived source and header files (messaging).
```

```
1
```

```
new/usr/src/cmd/sgs/librtld/Makefile.targ
```

```
48 catalog:      $(BLTMESG)
50 chkmsg:       $(MSGSRCS)
51           sh $(CHKMSG) $(CHKMSGFLAGS) $(MSGSRCS)
53 $(BLTDEFS) + \
54 $(BLTDATA) + \
55 $(BLTMESG):   $(SGSMMSGALL)
56           $(SGSMMSG) $(SGSMMSGFLAGS) $(SGSMMSGALL)
```

```
2
```

```
new/usr/src/cmd/sgs/librtld_db/Makefile.com
```

```
*****
```

```
2101 Sun Jul 14 19:12:15 2019
```

```
new/usr/src/cmd/sgs/librtld_db/Makefile.com
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWnold has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmg should be built with the rest of the build tools
```

```
*****
```

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26 LIBRARY=          librtld_db.a
27 VERS=             .1

29 COMOJBS=          rtld_db.o      rd_elf.o
30 BLTOBJ=           msg.o

32 OBJECTS =         $(BLTOBJ) $(COMOJBS) $(COMOJBS64) $(PLTOJBS)

34 include          $(SRC)/lib/Makefile.lib
35 include          $(SRC)/cmd/sgs/Makefile.com

37 SRCDIR =          ../../common

39 CPPFLAGS +=       -I$(SRC)/lib/libc/inc
39 CPPFLAGS +=       -I$(SRCBASE)/lib/libc/inc
40 DYNFLAGS +=        $(VERSREF)
41 LDLIBS +=          $(CONVLIBDIR) -lconv -lc
41 LDLIBS +=          $(CONVLIBDIR) $(CONV_LIB) -lc

43 CERRWARN +=      -_gcc=-Wno-uninitialized

45 BLTDEFS=          msg.h
46 BLTDATA=          msg.c

48 BLTFILES=         $(BLTDEFS) $(BLTDATA)

50 SGMSGCOM=         ../../common/librtld_db.msg
51 SGMSGINTEL=        ../../common/librtld_db.intel.msg
52 SGMSGPARCV9=       ../../common/librtld_db.sparcv9.msg
53 SGMSGTARG=         $(SGMSGCOM)
54 SGMSGALL=          $(SGMSGCOM)
55 SGMSGFLAGS +=     -h $(BLTDEFS) -d $(BLTDATA)
```

```
1
```

```
new/usr/src/cmd/sgs/librtld_db/Makefile.com
```

```
*****
```

```
57 MSGSRCS=          $(COMOJBS:%.o=../../common/%.c) $(PLTSRCS) $(BLTDATA)
```

```
59 CLEANFILES +=     $(BLTFILES)
```

```
60 CLOBBERFILES +=   $(DYNLIB)
```

```
62 ROOTFS_DYNLIB=    $(DYNLIB:=%$(ROOTFS_LIBDIR)/%)
```

```
63 ROOTFS_LINKS=    $(ROOTFS_LIBDIR)/$(LIBLINKS)
```

```
65 ROOTFS_DYNLIB64=  $(DYNLIB:=%$(ROOTFS_LIBDIR64)/%)
```

```
66 ROOTFS_LINKS64=  $(ROOTFS_LIBDIR64)/$(LIBLINKS)
```

```
68 $(ROOTFS_DYNLIB) := FILEMODE= 755
```

```
69 $(ROOTFS_DYNLIB64) := FILEMODE= 755
```

```
71 pics/rd_elf.o := CERRWARN += -erroff=E_END_OF_LOOP_CODE_NOT_REACHED
```

```
72 pics/rd_elf64.o := CERRWARN += -erroff=E_END_OF_LOOP_CODE_NOT_REACHED
```

```
2
```

```
new/usr/src/cmd/sgs/librtld_db/demo/Makefile
```

```
*****
3000 Sun Jul 14 19:12:16 2019
new/usr/src/cmd/sgs/librtld_db/demo/Makefile
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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23 #
24
25 include      $(SRC)/Makefile.master
26 include      $(SRC)/cmd/sgs/Makefile.sub
27 #endif /* ! codereview */
28
29 MACHDEMOFILES= \
30     i386/regs.c \
31     i386/m_utils.c \
32     i386/rdb_mach.h \
33     i386/Makefile \
34     amd64/regs.c \
35     amd64/rdb_mach.h \
36     amd64/Makefile \
37     sparc/regs.c \
38     sparc/m_utils.c \
39     sparc/rdb_mach.h \
40     sparc/Makefile \
41     sparcv9/regs.c \
42     sparcv9/m_utils.c \
43     sparcv9/rdb_mach.h \
44     sparcv9/Makefile
45
46 DEMOFILES= \
47     0README \
48     Makefile.com \
49     Makefile.targ \
50     common/bpt.c \
51     common/dis.c \
52     common/disasm.c \
53     common/disasm.h \
54     common/main.c \
55     common/ps.c \
56     common/gram.y \
57     common/lex.l \
58     common/globals.c \
```

1

```
new/usr/src/cmd/sgs/librtld_db/demo/Makefile
```

```
59     common/help.c \
60     common/utils.c \
61     common/maps.c \
62     common/syms.c \
63     common/callstack.c \
64     common/rdb.h \
65     common/rdb.man \
66     tests/breaks \
67     tests/loadmaps \
68     tests/object_padding_maps \
69     tests/plt_skip \
70     tests/steps \
71     tests/test-sparc-reg \
72     tests/simp.c \
73     tests/sub.c \
74     $(MACHDEMOFILES)
75
76 ROOTDEMODIRBASE=      $(ROOT)/usr/demo/librtld_db
77
78 ROOTDEMODIRS=      $(ROOTDEMODIRBASE) \
79             $(ROOTDEMODIRBASE)/common \
80             $(ROOTDEMODIRBASE)/tests \
81             $(ROOTDEMODIRBASE)/i386 \
82             $(ROOTDEMODIRBASE)/amd64 \
83             $(ROOTDEMODIRBASE)/sparc \
84             $(ROOTDEMODIRBASE)/sparcv9
85
86 ROOTDEMOFILES=      $(DEMOFILES:%%=$(ROOTDEMODIRBASE)%)%
87
88 $(ROOTDEMODIRS) :=      DIRMODE =      755
89
90 SED=      sed -e "/DEMO DELETE START/,/DEMO DELETE END/d"
91
92 CLEANFILES=      *.demo */*.demo
93
94 .KEEP_STATE:
95 .PARALLEL:      $(ROOTDEMOFILES)
96
97 all catalog chkmssg:
98
99 install:      $(ROOTDEMODIRS) .WAIT $(ROOTDEMOFILES)
100 clean clobber: FRC
101             $(RM) $(CLEANFILES)
102
103 $(ROOTDEMODIRS):
104             $(INS.dir)
105
106 $(ROOTDEMODIRBASE)/Makefile.%: Makefile.% demo
107             $(INS.rename)
108
109 $(ROOTDEMODIRBASE)/*% Makefile: %/Makefile.demo
110             $(INS.rename)
111
112 Makefile.% demo: Makefile.%
113             $(SED) < $< > $@
114
115 %/Makefile.demo: %/Makefile
116             $(SED) < $< > $@
117
118 $(ROOTDEMODIRBASE)/*%:
119             $(INS.file)
120
121 $(ROOTDEMODIRBASE)/common/%: common/%
122             $(INS.file)
123
```

2

```
125 $(ROOTDEMODIRBASE)/tests/%: tests/%  
126     $(INS.file)  
  
128 $(ROOTDEMODIRBASE)/sparc/%: sparc/%  
129     $(INS.file)  
  
131 $(ROOTDEMODIRBASE)/sparcv9/%: sparcv9/%  
132     $(INS.file)  
  
134 $(ROOTDEMODIRBASE)/i386/%: i386/%  
135     $(INS.file)  
  
137 FRC:
```

```

new/usr/src/cmd/sgs/librtld_db/demo/Makefile.targ
*****
2487 Sun Jul 14 19:12:16 2019
new/usr/src/cmd/sgs/librtld_db/demo/Makefile.targ
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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23 #
25 $(OBJDIR)/%.o: %.c
26         $(COMPILE.c) $< -o $@
27         $(POST_PROCESS_O)
29 $(OBJDIR)/%.o: ./common/%.c
30         $(COMPILE.c) $< -o $@
31         $(POST_PROCESS_O)
33 # DEMO DELETE START
35 $(ROOTONLDBIN):
36     $(INS.dir)
38 $(ROOTONLDBIN)/$(MACH64):
39     $(INS.dir)
41 $(ROOTONLDBIN)/%: % $(ROOTONLDBIN)
42 $(ROOTONLDBIN)/%: %
43     $(INS.file)
44 $(ROOTONLDBIN)/$(MACH64)/%: % $(ROOTONLDBIN)/$(MACH64)
45     $(INS.file)
46 # DEMO DELETE END
48 $(OBJDIR)/main.o: gram.h
50 gram.c + gram.h: ./common/gram.y
51         $(YACC) -d ./common/gram.y
52         $(MV) y.tab.c gram.c
53         $(MV) y.tab.h gram.h
55 lex.c: ./common/lex.l
56         $(LEX) ./common/lex.l

```

```

1
new/usr/src/cmd/sgs/librtld_db/demo/Makefile.targ
57             $(MV) lex.yy.c lex.c
59 $(PROG):      $(OBJS)
60             $(LINK.c) $(OBJS) -o $@ $(LDLIBS)
61 # DEMO DELETE START
62             $(POST_PROCESS)
63 # DEMO DELETE END
66 simp: ../tests/simp.c libsub.so.1
67             $(LINK.c) $(LDFLAG) -o $@ ..tests/simp.c -R ./libsub.so.1
69 libsub.so.1: ./tests/sub.c
70             $(LINK.c) $(LDFLAG) -o $@ -G -fpic -hlibsub.so.1 ./tests/sub.c
72 #
73 # RDB sample runs & tests
74 #
75 test-maps: simp FRC
76             ./rdb -f ./tests/loadmaps ./simp
78 test-breaks: simp FRC
79             ./rdb -f ./tests/breaks ./simp
81 test-steps: simp FRC
82             ./rdb -f ./tests/steps ./simp
84 test-plt_skip: simp FRC
85             ./rdb -f ./tests/plt_skip ./simp
87 test-sparc-reg: simp FRC
88             ./rdb -f ./tests/test-sparc-reg simp
90 test-object-padding: simp FRC
91             ./rdb -f ./tests/object_padding_maps simp
93 $(OBJDIR):
94             -@mkdir -p $(OBJDIR)
96 clean: FRC
97             $(RM) $(OBJS) $(CLEANFILES)
99 clobber: clean FRC
100            $(RM) $(PROG)
102 # DEMO DELETE START
103 catalog check chkmsg:
104 # DEMO DELETE END
105 #endif /* ! codereview */
107 FRC:
109 # DEMO DELETE START
111 include      $(SRC)/cmd/sgs/Makefile.targ
112 # DEMO DELETE END

```

```
new/usr/src/cmd/sgs/librtld_db/demo/amd64/Makefile
```

```
*****  
1539 Sun Jul 14 19:12:17 2019  
new/usr/src/cmd/sgs/librtld_db/demo/amd64/Makefile  
11461 should use a native link-editor during the build  
11463 SUNWlnd has passed its use-by date  
11464 cmd/sgs/tools should contain tools, not common code  
11465 sgsmsg should be built with the rest of the build tools  
*****
```

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```

```
27 include      ../Makefile.com  
29 CPPFLAGS += -D_SYSCALL32  
31 # DEMO DELETE START  
32 CCVERBOSE=  
34 LDFLAGS=      -L ../../$(MACH64) \  
35           -L ../../libelf/$(MACH64)
```

```
37 # DEMO DELETE END  
39 # Change -m64 to -xarch=generic64 for use with older Sun compilers.  
40 DEMOFLAGS=      -m64
```

```
42 .KEEP_STATE:  
44 all:          $(OBJDIR) .WAIT $(PROG)  
46 test:         $(TESTS)
```

```
48 # DEMO DELETE START  
49 DEMOFLAGS=
```

```
51 catalog:  
53 #endif /* ! codereview */  
54 install:      all $(ROOTONLDBINPROG64)  
55 # DEMO DELETE END
```

```
57 include      ../Makefile.targ
```

```
1
```

```
new/usr/src/cmd/sgs/librtld_db/demo/amd64/Makefile
```

```
59 $(OBJDIR)/%.o:  ../../i386/%.c  
60                      $(COMPILE.c) $< -o $@  
61                      $(POST_PROCESS_O)  
63 # DEMO DELETE START  
64 include      ../../../../../../Makefile.master.64  
65 # DEMO DELETE END
```

```
2
```

```
new/usr/src/cmd/sgs/librtld_db/demo/i386/Makefile
```

```
1
```

```
*****
```

```
1145 Sun Jul 14 19:12:17 2019
```

```
new/usr/src/cmd/sgs/librtld_db/demo/i386/Makefile
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWnld has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmsg should be built with the rest of the build tools
```

```
*****
```

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```

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```
25 #
```

```
27 include      ../../Makefile.com
```

```
29 .KEEP_STATE:
```

```
31 all:          $(OBJDIR) .WAIT $(PROG)
```

```
33 test:         $(TESTS)
```

```
35 # DEMO DELETE START
```

```
36 catalog:
```

```
38 #endif /* ! codereview */
```

```
39 install:      all $(ROOTONLDBINPROG)
```

```
40 # DEMO DELETE END
```

```
42 include      ../../Makefile.targ
```

```
new/usr/src/cmd/sgs/librtld_db/demo/sparc/Makefile
```

```
1
```

```
*****
```

```
1145 Sun Jul 14 19:12:17 2019
```

```
new/usr/src/cmd/sgs/librtld_db/demo/sparc/Makefile
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWnld has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmsg should be built with the rest of the build tools
```

```
*****
```

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27 include      ../../Makefile.com

29 .KEEP_STATE:

31 all:          $(OBJDIR) .WAIT $(PROG)

33 test:         $(TESTS)

35 # DEMO DELETE START
36 catalog:

38 #endif /* ! codereview */
39 install:      all $(ROOTONLDBINPROG)
40 # DEMO DELETE END

42 include      ../../Makefile.targ
```

```

new/usr/src/cmd/sgs/librtld_db/demo/sparcv9/Makefile
*****
1467 Sun Jul 14 19:12:18 2019
new/usr/src/cmd/sgs/librtld_db/demo/sparcv9/Makefile
11461 should use a native link-editor during the build
11463 SUNWlnd has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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27 include      ../Makefile.com
29 CPPFLAGS += -D_SYSCALL32
31 # DEMO DELETE START
32 CCVERBOSE=
34 LDFLAGS=      -L ../../$(MACH64) \
35           -L ../../libelf/$(MACH64)

37 # DEMO DELETE END
39 # Change -m64 to -xarch=generic64 for use with older Sun compilers.
40 DEMOFLAGS=     -m64
42 .KEEP_STATE:
44 all:          $(OBJDIR) .WAIT $(PROG)
46 test:         $(TESTS)
48 # DEMO DELETE START
49 DEMOFLAGS=

51 catalog:
53 #endif /* ! codereview */
54 install:      all $(ROOTONLDBINPROG64)
55 # DEMO DELETE END

57 include      ../Makefile.targ

```

```

1
new/usr/src/cmd/sgs/librtld_db/demo/sparcv9/Makefile
*****
59 # DEMO DELETE START
60 include      ../../../../../../Makefile.master.64
61 # DEMO DELETE END

```

new/usr/src/cmd/sgs/link_audit/Makefile.com

```
*****
3599 Sun Jul 14 19:12:18 2019
new/usr/src/cmd/sgs/link_audit/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWORLD has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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27 include      ../../lib/Makefile.lib
28 include      ../../Makefile.com

30 NO_ASM_WARN= -erroff=E_ASM_DISABLES_OPTIMIZATION

32 TRUSSLIB=    truss.so.1
33 TRUSSSRC=    truss.c

35 SYMBINDREP= symbindrep.so.1
36 SYMBINDREPSRC= symbindrep.c

38 PERFLIB=    perfcnt.so.1
39 PERFSRC=    perfcnt.c hash.c

41 WHOLIB=     who.so.1
42 WHOSRC=     who.c

44 BINDLIB=    bindings.so.1
45 BINDSRC=    bindings.c

47 ONSCRIPTS=  perfnt symbindrep
48 ONPROGS=    dumpbind
49 ONLIBS=     $(SYMBINDREP) $(PERFLIB) $(BINDLIB)

51 USRSCRIPTS= sotruss whocalls
52 CCSLIBS=    $(TRUSSLIB) $(WHOLIB)

54 PICDIR=     pics
55 OBJDIR=    objs

57 TRUSSPICS=  $(TRUSSSRC:.c=$(PICDIR)/%.o) $(PICDIR)/env.o
58 PERFPICS=  $(PERFSRC:.c=$(PICDIR)/%.o) $(PICDIR)/env.o
```

1

new/usr/src/cmd/sgs/link_audit/Makefile.com

```
59 WHOPICS=      $(WHOSRC:.c=$(PICDIR)/%.o) $(PICDIR)/env.o
60 SYMBINDREPPICS= $(SYMBINDREPSRC:.c=$(PICDIR)/%.o) $(PICDIR)/env.o
61 BINDPICS=      $(BINDSRC:.c=$(PICDIR)/%.o) $(PICDIR)/env.o
63 $(WHOPICS):= SEMANTICCHK=
65 LDLIBS += $(CONVLIBDIR) -lconv
65 LDLIBS += $(CONVLIBDIR) $(CONV_LIB)

67 $(TRUSSLIB):= PICS = $(TRUSSPICS)
68 $(PERFLIB):= PICS = $(PERFPICS)
69 $(WHOLIB):= PICS = $(WHOPICS)
70 $(SYMBINDREP):= PICS = $(SYMBINDREPPICS)
71 $(BINDLIB):= PICS = $(BINDPICS)

73 $(TRUSSLIB):= LDLIBS += $(ZRECORD) -lmapmalloc -lc
74 $(PERFLIB):= LDLIBS += $(ZRECORD) -lmapmalloc -lc
75 $(WHOLIB):= LDLIBS += $(ELFLIBDIR) -lelf $(ZRECORD) -lmapmalloc $(DLLIB) -lc
76 $(SYMBINDREP):= LDLIBS += $(ZRECORD) -lmapmalloc -lc
77 $(BINDLIB):= LDLIBS += $(ZRECORD) -lmapmalloc -lc

79 $(TRUSSLIB):= SONAME = $(TRUSSLIB)
80 $(PERFLIB):= SONAME = $(PERFLIB)
81 $(WHOLIB):= SONAME = $(WHOLIB)
82 $(SYMBINDREP):= SONAME = $(SYMBINDREP)
83 $(BINDLIB):= SONAME = $(BINDLIB)

85 $(TRUSSLIB):= MAPFILES = .../common/mapfile-vers-truss
86 $(PERFLIB):= MAPFILES = .../common/mapfile-vers-perfcnt
87 $(WHOLIB):= MAPFILES = .../common/mapfile-vers-who
88 $(SYMBINDREP):= MAPFILES = .../common/mapfile-vers-symbindrep
89 $(BINDLIB):= MAPFILES = .../common/mapfile-vers-bindings

91 $(ROOTCCSLIB) := DIRMODE = 755
93 CPPFLAGS += -D_REENTRANT
94 LDFLAGS += $(CC_USE_PROTO)
94 DYNFLAGS += $(VERSREF)

96 CLEANFILES += $(OBJDIR)/* $(PICDIR)/*
97 CLOBBERFILES += $(ONSCRIPTS) $(ONPROGS) $(ONLIBS) $(CCSLIBS) $(USRSCRIPTS)

99 ROOTONLDDLIB= $(ROOT)/opt/SUNWORLD/lib
100 ROOTONLDDLIBS= $(ONLIBS:=$(ROOTONLDDLIB)/%)
101 ROOTONLDDLIB64= $(ROOTONLDDLIB)$(MACH64)
102 ROOTONLDDLIBS64= $(ONLIBS:=$(ROOTONLDDLIB64)/%)

104 ROOTONLDBIN= $(ROOT)/opt/SUNWORLD/bin
105 ROOTONLDBINPROG= $(ONSCRIPTS:=$(ROOTONLDBIN)/%) \
106 $(ONPROGS:=$(ROOTONLDBIN)/%)

108 ROOTCCSLIB= $(ROOT)/usr/lib/link_audit
109 ROOTCCSLIB64= $(ROOT)/usr/lib/link_audit/$(MACH64)
110 ROOTCCSLIBS= $(CCSLIBS:=$(ROOTCCSLIB)/%)
111 ROOTCCSLIBS64= $(CCSLIBS:=$(ROOTCCSLIB64)/%)

113 ROOTUSRBIN= $(ROOT)/usr/bin
114 ROOTUSRBins= $(USRSCRIPTS:=$(ROOTUSRBIN)/%)

116 FILEMODE= 0755
118 .PARALLEL: $(LIBS) $(PROGS) $(SCRIPTS) $(TRUSSPICS) $(PERFPICS) \
119 $(WHOPICS) $(SYMBINDREPPICS) $(BINDPICS)
```

2

```
new/usr/src/cmd/sgs/link_audit/Makefile.targ
```

```
*****  
2187 Sun Jul 14 19:12:19 2019  
new/usr/src/cmd/sgs/link_audit/Makefile.targ
```

```
11461 should use a native link-editor during the build  
11463 SUNWld has passed its use-by date  
11464 cmd/sgs/tools should contain tools, not common code  
11465 sgsmsg should be built with the rest of the build tools  
*****
```

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25 # Copyright 2015 RackTop Systems.  
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27 #  
28 %: .. /common/%.ksh  
29     $RM $@  
30     cat $< > $@  
31     chmod +x $@  
32  
33 $(PICDIR)/%.o: %.c  
34     $(COMPILE.c) $< -o $@  
35     $(POST_PROCESS_O)  
36  
37 $(PICDIR)/%.o: .. /common/%.c  
38     $(COMPILE.c) $< -o $@  
39     $(POST_PROCESS_O)  
40  
41 $(OBJDIR)/%.o: %.c  
42     $(COMPILE.c) $< -o $@  
43     $(POST_PROCESS_O)  
44  
45 $(OBJDIR)/%.o: .. /common/%.c  
46     $(COMPILE.c) $< -o $@  
47     $(POST_PROCESS_O)  
48  
49 $(TRUSSLIB): $(TRUSSPICS)  
50     $(BUILD_SO)  
51     $(POST_PROCESS_SO)  
52  
53 $(BINDLIB): $(BINDPICS)  
54     $(BUILD_SO)  
55     $(POST_PROCESS_SO)  
56  
57 $(SYMBINDREP): $(SYMBINDREPPICS)
```

```
1
```

```
new/usr/src/cmd/sgs/link_audit/Makefile.targ
```

```
59     $(BUILD_SO)  
60     $(POST_PROCESS_SO)  
61 $(PERFLIB): $(PERFPICS)  
62     $(BUILD_SO)  
63     $(POST_PROCESS_SO)  
64  
65 $(WHOLIB): $(WHOPICS)  
66     $(BUILD_SO)  
67     $(POST_PROCESS_SO)  
68  
69 dumpbind: $(OBJDIR)/dumpbind.o  
70     $(LINK.C) -o $@ $(OBJDIR)/dumpbind.o $(LDLIBS)  
71     $(POST_PROCESS)  
72  
73 $(ROOTUSRBIN)/%: %  
74     $(INS.file)  
75  
76 $(ROOTCCSLIB)/%: %  
77     $(INS.file)  
78  
79 $(ROOTCCSLIB64)/%: %  
80     $(INS.file)  
81  
82 $(ROOTONLDBIN)/%: % $(ROOTONLDBIN)  
83 $(ROOTONLDBIN)/%: %  
84     $(INS.file)  
85  
86 $(ROOTONLDLIB)/%: % $(ROOTONLDLIB)  
87 $(ROOTONLDLIB)/%: %  
88     $(INS.file)  
89  
90 $(ROOTONLDLIB64)/%: % $(ROOTONLDLIB64)  
91 $(ROOTONLDLIB64)/%: %  
92     $(INS.file)  
93  
94 $(ROOTCCSLIB64):  
95     $(INS.dir)  
96  
97 $(ROOTONLDBIN):  
98     $(INS.dir)  
99  
100 $(ROOTONLDLIB):  
101     $(INS.dir)  
102  
103 $(ROOTONLDLIB64):  
104     $(INS.dir)  
105     #endif /* ! codereview */  
106     $(INS.dir)  
107  
108 include      ../../../../../../lib/Makefile.targ
```

```
2
```

```
*****
1346 Sun Jul 14 19:12:19 2019
new/usr/src/cmd/sgs/link_audit/amd64/Makefile
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
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27 #

29 include      ./Makefile.com

31 CONVLIBDIR = $(CONVLIBDIR64)
32 ELFDIR =    $(ELFDIR64)

34 $(ONLIBS) \
35 $(CCSLIBS) :=  CFLAGS64 +=      $(C_PICFLAGS64) $(NO_ASM_WARN)

37 .KEEP_STATE:

39 all:          $(PICDIR) .WAIT $(CCSLIBS) $(CCSSCRIPTS) \
40                  $(ONSSCRIPTS) $(ONLIBS)

42 install:     all $(ROOTCCSLIB64) .WAIT $(ROOTCCSLIBS64) .WAIT $(ROOTONLDLIBS6
42 install:     all $(ROOTCCSLIB64) .WAIT $(ROOTCCSLIBS64)

44 package:    install .WAIT $(ROOTONLDLIBS64)

44 include      ./Makefile.targ
45 include      ../.././Makefile.sub.64
```

```
*****
1307 Sun Jul 14 19:12:20 2019
new/usr/src/cmd/sgs/link_audit/i386/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
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27 #

29 include      ./Makefile.com

31 $(ONLIBS) \
32 $(CCSLIBS) :=      CFLAGS +=      $(C_PICFLAGS) $(NO_ASM_WARN)

34 .KEEP_STATE:

36 all:          $(OBJDIR) $(PICDIR) .WAIT $(CCSLIBS) $(CCSSCRIPTS) \
37                  $(ONSSCRIPTS) $(ONPROGS) $(ONLIBS)

39 install:      all $(ROOTCCSLIB) .WAIT $(ROOTUSRIBNS) $(ROOTCCSLIBS) \
40                  .WAIT $(ROOTONLDLIBS) $(ROOTONLDBINPROG)
39 install:      all $(ROOTCCSLIB) .WAIT $(ROOTUSRIBNS) $(ROOTCCSLIBS)

41 package:      install .WAIT $(ROOTONLDLIBS) $(ROOTONLDBINPROG)

42 include      ./Makefile.targ
```

```
new/usr/src/cmd/sgs/link_audit/sparc/Makefile
```

```
1
```

```
*****
```

```
1307 Sun Jul 14 19:12:20 2019
```

```
new/usr/src/cmd/sgs/link_audit/sparc/Makefile
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWnld has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmg should be built with the rest of the build tools
```

```
*****
```

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29 include      ./Makefile.com

31 $(ONLIBS) \
32 $(CCSLIBS) :=      CFLAGS +=      $(C_PICFLAGS) $(NO_ASM_WARN)

34 .KEEP_STATE:

36 all:          $(OBJDIR) $(PICDIR) .WAIT $(CCSLIBS) $(CCSSCRIPTS) \
37                  $(ONSSCRIPTS) $(ONPROGS) $(ONLIBS)

39 install:      all $(ROOTCCSLIB) .WAIT $(ROOTUSRIBNS) $(ROOTCCSLIBS) \
40                  .WAIT $(ROOTONLDLIBS) $(ROOTONLDBINPROG)
39 install:      all $(ROOTCCSLIB) .WAIT $(ROOTUSRIBNS) $(ROOTCCSLIBS)

41 package:      install .WAIT $(ROOTONLDLIBS) $(ROOTONLDBINPROG)

42 include      ./Makefile.targ
```

```
new/usr/src/cmd/sgs/link_audit/sparcv9/Makefile
```

```
1
```

```
*****
```

```
1350 Sun Jul 14 19:12:21 2019
```

```
new/usr/src/cmd/sgs/link_audit/sparcv9/Makefile
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWold has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmg should be built with the rest of the build tools
```

```
*****
```

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29 include      ./Makefile.com

31 CONVLIBDIR = $(CONVLIBDIR64)
32 ELFDIR =    $(ELFDIR64)

34 $(ONLIBS) \
35 $(CCSLIBS) := CFLAGS64 +=      $(C_PICFLAGS64) $(NO_ASM_WARN)

37 .KEEP_STATE:

39 all:          $(PICDIR) .WAIT $(CCSLIBS) $(CCSSCRIPTS) \
40                  $(ONSSCRIPTS) $(ONLIBS)

42 install:     all $(ROOTCCSLIB64) .WAIT $(ROOTCCSLIBS64) \
43                  .WAIT $(ROOTONLDLIBS64)
42 install:     all $(ROOTCCSLIB64) .WAIT $(ROOTCCSLIBS64)

44 package:     install .WAIT $(ROOTONLDLIBS64)

45 include      ./Makefile.targ
46 include      ../.././Makefile.sub.64
```

new/usr/src/cmd/sgs/mcs/Makefile.com

1

```
*****
1586 Sun Jul 14 19:12:21 2019
new/usr/src/cmd/sgs/mcs/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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29 PROG= mcs
30 STRIPFILE= strip
32 ROOTLINKS= $(VAR_SGSBIN)/$(STRIPFILE)
34 include $(SRC)/cmd/Makefile.cmd
35 include $(SRC)/cmd/sgs/Makefile.com

37 # avoid bootstrap problems
38 MCS = /usr/ccs/bin/mcs

40 COMOJBS = main.o file.o utils.o global.o \
41 message.o
42 SGSCOMMONOBJ = alist.o
42 TOOLSOJBS = alist.o

44 OJBS = $(COMOJBS) $(SGSCOMMONOBJ)
44 OJBS = $(COMOJBS) $(TOOLSOJBS)

46 LLDFLAGS = '-R$ORIGIN/../../lib'
47 LLDFLAGS64 = '-R$ORIGIN/../../lib/$(MACH64)'
48 LDFLAGS += $(VERSREF) $(LLDFLAGS)
49 LDLIBS += $(CONVLIBDIR) -lconv $(ELFLIBDIR) -lelf
49 LDLIBS += $(CONVLIBDIR) $(CONV_LIB) $(ELFLIBDIR) -lelf

51 CERRWARN += -gcc=-Wno-uninitialized
53 SRCS = $(COMOJBS:%.o=../common/%.c) \
54 $(SGSCOMMONOBJ:%.o=$(SGSCOMMON)/%.c) \
54 $(TOOLSOJBS:%.o=$(SGSTOOLS)/common/%.c)
```

new/usr/src/cmd/sgs/mcs/Makefile.com

56 CLEANFILES += \$(OJBS)

2

new/usr/src/cmd/sgs/mcs/Makefile.targ

1770 Sun Jul 14 19:12:22 2019

new/usr/src/cmd/sgs/mcs/Makefile.targ

11461 should use a native link-editor during the build

11463 SUNWold has passed its use-by date

11464 cmd/sgs/tools should contain tools, not common code

11465 sgsmsg should be built with the rest of the build tools

```
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27 #

29 ROOTSTRIPFILEPROG=      $(STRIPFILE:=%$(ROOTCCSBIN)/%)
30 ROOTSTRIPFILEPROG64=     $(STRIPFILE:=%$(ROOTCCSBIN64)/%)

32 %.o:          ../../common/%.c
33             $(COMPILE.c) $<
34             $(POST_PROCESS_O)

36 %.o:          $(SGSCOMMON)/%.c
36 %.o:          $(SGSTOOLS)/common/%.c
37             $(COMPILE.c) $<
38             $(POST_PROCESS_O)

40 all:          $(PROG) $(STRIPFILE)

42 clean:
43             $(RM) $(CLEANFILES)

45 delete:
46             $(RM) $(PROG)

48 $(PROG):
49             $(OBJS)
50             $(LINK.c) -o $@ $(OBJS) $(LDLIBS)
50             $(POST_PROCESS)

52 $(STRIPFILE):
54 $(ROOTLINKS):   $(VAR_SGSBINPROG)
55             $(RM) $@
56             $(LN) $(VAR_SGSBINPROG) $@
```

1

new/usr/src/cmd/sgs/mcs/Makefile.targ

58 \$(STRIPSYMLINK): \$(RM) \$(ROOTSTRIPFILEPROG)

59 \$(SYMLINK) ../../bin/\$(STRIPFILE) \$(ROOTSTRIPFILEPROG)

61 \$(STRIPSYMLINK64): \$(RM) \$(ROOTSTRIPFILEPROG64)

62 \$(SYMLINK) ../../bin/\$(MACH)/\$(STRIPFILE) \$(ROOTSTRIPFILEPROG64)

64 \$(ROOTBIN64): %
65 \$(INS.file)

67 include \$(SRC)/cmd/Makefile.targ

68 include \$(SRC)/cmd/sgs/Makefile.targ

2

new/usr/src/cmd/sgs/moe/Makefile.com

```
*****
1552 Sun Jul 14 19:12:22 2019
new/usr/src/cmd/sgs/moe/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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27 #

29 PROG=          moe
30
31 include        $(SRC)/cmd/Makefile.cmd
32 include        $(SRC)/cmd/sgs/Makefile.com
33
34 COMOBJ=        moe.o
35 BLTOBJ=        msg.o
36
37 OBJS=         $(BLTOBJ) $(COMOBJ)
38
39 MAPFILE=        $(MAPFILE.NGB)
40 MAPOPT=        $(MAPFILE:%%=-M%)
41
42 LDFLAGS +=     -WL,$(VERSREF) $(MAPOPT)
43 LDLIBS +=      $(CONVLIBDIR) -lconv
44 LDFLAGS +=      -WL,$(VERSREF) $(CC_USE_PROTO) $(MAPOPT)
45 LDLIBS +=      $(CONVLIBDIR) $(CONV_LIB)
46
47 BLTDEFS=       msg.h
48 BLTDATA=        msg.c
49 BLTMESG=        $(SGSMMSGDIR)/moe
50
51 BLTFILES=       $(BLTDEFS) $(BLTDATA) $(BLTMESG)
52
53 SGSMSCOM=      ./common/moe.msg
54 SGMSGTARG=      $(SGSMSCOM)
55 SGMSGALL=      $(SGSMSCOM)
56 SGMSGFLAGS +=   -h $(BLTDEFS) -d $(BLTDATA) -m $(BLTMESG) -n moe_msg
57
58 SRCS=          $(COMOBJ:%.o=../common/%.c) $(BLTDATA)
```

1

new/usr/src/cmd/sgs/moe/Makefile.com

```
58 CLEANFILES +=  $(BLTFILES)
```

2

new/usr/src/cmd/sgs/nm/amd64/Makefile

```
*****
1772 Sun Jul 14 19:12:23 2019
new/usr/src/cmd/sgs/nm/amd64/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
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27 #

29 PROG= nm
31 ARFORMAT= PORTAR
33 include ../../Makefile.cmd
34 include ../../Makefile.com
36 COMOJBS= nm.o
38 OJJS= $(COMOJBS)
40 SRCS= $(COMOJBS:.o=../common/%.c)
42 LDFLAGS += '-R$ORIGIN/../../../../lib/$(MACH64)'
43 INCLIST= -I../../include -I../../../include/i386 \
44 -I$(SRC)/uts/$(ARCH)/sys
44 -I$(SRCBASE)/uts/$(ARCH)/sys
45 CPPFLAGS= $(INCLIST) $(DEFLIST) $(CPPFLAGS.master) -I$(ELFCAP)

47 LDLIBS += $(CONVLIBDIR64) -lconv $(ELFLIBDIR) -lelf
47 LDLIBS += $(CONVLIBDIR64) $(CONV_LIB) $(ELFLIBDIR) -lelf

49 %.o: ./common/%.c
50 $(COMPILE.c) $<
52 $(ROOTCCSBIN64)/%: %
53 $(INS.file)

55 .KEEP_STATE:
```

1

new/usr/src/cmd/sgs/nm/amd64/Makefile

```
57 all: $(PROG)
59 $(PROG): $(OJJS)
60 $(LINK.c) $(OJJS) -o $@ $(LDLIBS)
61 $(POST_PROCESS)
63 package \
64 install: all $(VAR_SGSBINPROG64) $(VAR_SGCCSLINK64)
66 clean:
67 $(RM) $(OJJS) $(CLEANFILES)
69 include ../../Makefile.targ
70 include ../../../../Makefile.targ
71 include ../../Makefile.sub.64
```

2

new/usr/src/cmd/sgs/nm/i386/Makefile

```
*****
2062 Sun Jul 14 19:12:23 2019
new/usr/src/cmd/sgs/nm/i386/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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26 #

28 PROG= nm
29 XPG4PROG= nm

31 ARFORMAT= PORTAR

33 include ../.././Makefile.cmd
34 include ../.././Makefile.com

36 COMOJBS= nm.o

38 OBJS= $(COMOJBS)
39 XPG4OBJS= obj.xpg4/nm.o

41 SRCS= $(COMOJBS:%.o=../common/%.c)

43 LLDFLAGS =
44 INCLIST=
45 -I$(SRC)/uts/$(ARCH)/sys
46 DEFLIST=
47 CPPFLAGS= $(INCLIST) $(DEFLIST) $(CPPFLAGS.master) -I$(ELFCAP)

49 LDLIBS += $(CONVLIBDIR) -lconv $(ELFLIBDIR) -lelf
49 LDLIBS += $(CONVLIBDIR) $(CONV_LIB) $(ELFLIBDIR) -lelf
50 obj.xpg4/%.o := CPPFLAGS += -DXPG4

52 $(DEMOJBS):= DEFLIST = -DELFOBJ

54 obj.xpg4/%.o: ./common/%.c
55 $(COMPILE.c) -o $@ $<
```

1

new/usr/src/cmd/sgs/nm/i386/Makefile

```
57 %.o: .. /common/%.c
58 $(COMPILE.c) $<
60 .KEEP_STATE:
62 all: $(PROG) $(XPG4)
64 $(PROG): $(OBJS)
65 $(LINK.c) $(OBJS) -o $@ $(LLDFLAGS) $(LDLIBS)
66 $(POST_PROCESS)
68 $(XPG4): $(XPG4OBJS)
69 $(LINK.c) $(XPG4OBJS) -o $@ $(LDLIBS)
70 $(POST_PROCESS)
72 $(XPG4OBJS): objs.xpg4
74 objs.xpg4:
75 -@mkdir -p $@
77 package \
78 install: all $(VAR_SGSBINPROG) $(ROOTXPG4PROG) $(VAR_SGCCSLINK)
80 clean:
81 $(RM) $(OBJS) $(XPG4OBJS) $(CLEANFILES)
83 include ../.././Makefile.targ
84 include ../.././Makefile.targ
```

2

new/usr/src/cmd/sgs/nm/sparc/Makefile

1

```
*****
2255 Sun Jul 14 19:12:24 2019
new/usr/src/cmd/sgs/nm/sparc/Makefile
11461 should use a native link-editor during the build
11463 SUNWORLD has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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26 #

28 PROG= nm
29 XPG4PROG= nm

31 ARFORMAT= PORTAR

33 include ../../../../Makefile.cmd
34 include ../../../../Makefile.com

36 COMOJBS= nm.o

38 OJBS= $(COMOJBS)
39 XPG4OJBS= obj.xpg4/nm.o

41 SRCS= $(COMOJBS:%.o=../common/%.c)

43 LLDFLAGS=
44 INCLIST=
45 -I$(SRC)/uts/$(ARCH)/sys
45 -I$(SRCBASE)/uts/$(ARCH)/sys
46 DEFLIST=
47 CPPFLAGS=
48 LDLIBS +=
48 LDLIBS +=
49 obj.xpg4/%.o := CPPFLAGS += -DXPG4

52 # Building SUNWORLD results in a call to the 'package' target. Requirements
53 # needed to run this application on older releases are established:
54 # i18n support requires libintl.so.1 prior to 2.6

56 package := LDLIBS += /usr/lib/libintl.so.1
```

new/usr/src/cmd/sgs/nm/sparc/Makefile

2

```
59 objs.xpg4/%.o: ./common/%.c
60 $(COMPILE.c) -o $@ $<
62 %.o: ./common/%.c
63 $(COMPILE.c) $<
65 .KEEP_STATE:
67 all: $(PROG) $(XPG4)
69 $(PROG): $(OBJS)
70 $(LINK.c) $(OBJS) -o $@ $(LDFLAGS) $(LDLIBS)
71 $(POST_PROCESS)
73 $(XPG4):
74 $(XPG4OBJS)
75 $(LINK.c) $(XPG4OBJS) -o $@ $(LDLIBS)
75 $(POST_PROCESS)
77 $(XPG4OBJS): objs.xpg4
79 objs.xpg4:
80 -@mkdir -p $@
82 package \
83 install: all $(VAR_SGSBINPROG) $(ROOTXPG4PROG) $(VAR_SGCCSLINK)
85 clean:
86 $(RM) $(OBJS) $(XPG4OBJS) $(CLEANFILES)
88 include ../../../../Makefile.targ
89 include ../../../../Makefile.targ
```

new/usr/src/cmd/sgs/nm/sparcv9/Makefile

```
*****
1792 Sun Jul 14 19:12:24 2019
new/usr/src/cmd/sgs/nm/sparcv9/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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28 PROG= nm
30 ARFORMAT= PORTAR
32 include ../../Makefile.cmd
33 include ../../Makefile.com
35 COMOJBS= nm.o
37 OJBS= $(COMOJBS)
39 SRCS= $(COMOJBS:.o=../common/%.c)
41 LDFLAGS += '-R$ORIGIN/../../lib/$(MACH64)'
42 INCLIST= -I../../include -I../../include/sparc \
43 -I$(SRC)/uts/$(ARCH)/sys \
43 -I$(SRCCBASE)/uts/$(ARCH)/sys
44 DEFLIST= -DTARGET=SPARC -DSPARC=1 -D$(ARFORMAT) -DELFS
45 CPPFLAGS= $(INCLIST) $(DEFLIST) $(CPPFLAGS.master) -I$(ELFCAP)
46 LDLIBS += $(CONVLIBDIR64) -lconv $(ELFLIBDIR) -lelf
46 LDLIBS += $(CONVLIBDIR64) $(CONV_LIB) $(ELFLIBDIR) -lelf

49 %.o: ./common/%.c
50 $(COMPILE.c) $<
52 $(ROOTCCSBIN64)/%: %
53 $(INS.file)

55 .KEEP_STATE:
```

1

new/usr/src/cmd/sgs/nm/sparcv9/Makefile

```
57 all: $(PROG)
59 $(PROG): $(OBJS)
60 $(LINK.c) $(OBJS) -o $@ $(LDLIBS)
61 $(POST_PROCESS)
63 package \
64 install: all $(VAR_SGSBINPROG64) $(VAR_SGCCSLINK64)
66 clean:
67 $(RM) $(OBJS) $(CLEANFILES)
69 include ../../Makefile.targ
70 include ../../../../Makefile.targ
71 include ../../../../Makefile.sub.64
```

2

```
*****
1574 Sun Jul 14 19:12:27 2019
new/usr/src/cmd/sgs/prof/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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27 #

29 PROG=      prof
30
31 include      $(SRC)/cmd/Makefile.cmd
32 include      $(SRC)/cmd/sgs/Makefile.com
33
34 COMOJBS=    prof.o profv.o lookup.o rdeps.o \
35                  symintOpen.o symintClose.o symintUtil.o symintErr.o symintLoad.o
36
37 OJBS=       $(COMOJBS)
38
39 SRCS=       $(COMOJBS:%.o=../common/%.c)
40
41 INCLIST=   -I../common -I../../include -I../../include/$(MACH)
42
43 CPPFLAGS=   $(INCLIST) $(DEFLIST) $(CPPFLAGS.master) -I$(ELFCAP)
44 CFLAGS +=   $(CCVERBOSE)
45 CSTD=      $(CSTD_GNU99)
46 CERRWARN += -Wno-uninitialized
47
48 # not linted
49 SMATCH=off
50
51 LDLIBS +=   $(CONVLIBDIR) -lconv $(ELFLIBDIR) -lelf
52 LDLIBS +=   $(CONVLIBDIR) $(CONV_LIB) $(ELFLIBDIR) -lelf
53 %.o:        ./common/%.c
54             $(COMPILE.c) $<
```

new/usr/src/cmd/sgs/pvs/Makefile.com

```
*****
1869 Sun Jul 14 19:12:27 2019
new/usr/src/cmd/sgs/pvs/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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28 #

30 PROG=          pvs

32 include        $(SRC)/cmd/Makefile.cmd
33 include        $(SRC)/cmd/sgs/Makefile.com

35 COMOBJ=        pvs.o
36 BLTOBJ=        msg.o

38 SGSCOMMONOBJ = alist.o
38 TOOLOJBS =      alist.o

40 OBJS=          $(BLTOBJ) $(COMOBJ) $(SGSCOMMONOBJ)
40 OBJS+=         $(BLTOBJ) $(COMOBJ) $(TOOLOJBS)

42 MAPFILE=        $(MAPFILE.NGB)
43 MAPOPTS=        $(MAPFILE:%%=-M%)

45 CPPFLAGS +=    -I$(SRC)/lib/libc/inc
45 CPPFLAGS +=    -I$(SRCBASE)/lib/libc/inc
46 LLDFLAGS =      '-R$ORIGIN/../lib'
47 LLDFLAGS64 =   '-R$ORIGIN/../../../lib/$(MACH64)'
48 LDFLAGS +=     $(VERSREF) $(MAPOPTS) $(LLDFLAGS)
49 LDLIBS +=       $(LDBGLIBDIR) -llddbg $(ELFLIBDIR) -lelf \
50                   $(CONVLIBDIR) -lconv
48 LDFLAGS +=     $(VERSREF) $(CC_USE_PROTO) $(MAPOPTS) $(LLDFLAGS)
49 LDLIBS +=       $(LDBGLIBDIR) $(LDDBG_LIB) $(ELFLIBDIR) -lelf \
50                   $(CONVLIBDIR) $(CONV_LIB)

52 # not linted
```

1

new/usr/src/cmd/sgs/pvs/Makefile.com

```
53 SMATCH=off

55 BLTDEFS=        msg.h
56 BLTDATA=        msg.c
57 BLTMESG=        $(SGSMMSGDIR)/pvs

59 BLTFILES=        $(BLTDEFS) $(BLTDATA) $(BLTMESG)

61 SGSMMSGCOM=     ./common/pvs.msg
62 SGSMSGTARG=     $(SGSMMSGCOM)
63 SGSMMSGALL=     $(SGSMMSGCOM)

65 SGSMMSGFLAGS += -h $(BLTDEFS) -d $(BLTDATA) -m $(BLTMESG) -n pvs_msg

67 SRCS=           $(COMOBJ:%.o=../common/%.c) $(BLTDATA) \
68 $(SGSCOMMONOBJ:%.o=$(SGSCOMMON)/%.c)
68 $(TOOLOJBS:%.o=$(SGSTOOLS)/common/%.c)

70 CLEANFILES +=   $(BLTFILES)
```

2

new/usr/src/cmd/sgs/pvs/Makefile.targ

1588 Sun Jul 14 19:12:28 2019

new/usr/src/cmd/sgs/pvs/Makefile.targ

11461 should use a native link-editor during the build

11463 SUNWold has passed its use-by date

11464 cmd/sgs/tools should contain tools, not common code

11465 sgsmsg should be built with the rest of the build tools

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26 #

28 %.o:      ../../common/%.c
29         $(COMPILE.c) $<
30         $(POST_PROCESS_O)

32 %.o:      $(SGSCOMMON)/%.c
32 %.o:      $(SGSTOOLS)/common/%.c
33         $(COMPILE.c) -o $@ $<
34         $(POST_PROCESS_O)

36 all:      $(PROG)

38 clean:
39         $(RM) $(OBJS) $(CLEANFILES)

41 delete:
42         $(RM) $(PROG)

44 install \
45 package:   all $(ROOTPROG)

47 $(PROG):   $(OBJS) $(MAPFILE)
48         $(LINK.c) -o $@ $(OBJS) $(LDLIBS)
49         $(POST_PROCESS)

51 include    $(SRC)/cmd/Makefile.targ
52 include    $(SRC)/cmd/sgs/Makefile.targ

54 # Derived source and header files (messaging).

56 catalog:   $(BLTMSG)
```

1

new/usr/src/cmd/sgs/pvs/Makefile.targ

58 chkmsg: \$(SRCS)

59 sh \$(CHKMSG) \$(CHKMSGFLAGS) \$(SRCS)

61 \$(BLTDEFS) + \

62 \$(BLTDATA) + \

63 \$(BLTMESG) : \$(SGSMMSGALL)

64 \$(SGMSG) \$(SGMSGFLAGS) \$(SGMSGALL)

2

```
*****
4340 Sun Jul 14 19:12:28 2019
new/usr/src/cmd/sgs/rtld/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

```

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28 RTLD= ld.so.1

30 AVLOBJ= avl.o
31 DTROBJ= dtrace_data.o
32 SGSCOMMONOBJ= alist.o strhash.o
33 TOOLOBJS= alist.o strhash.o
33 BLTOBJ= msg.o
34 ELFCAPOBJ= elfcap.o
35 OBJECTS= $(BLTOBJ) \
36 $(AVLOBJ) \
37 $(DTROBJ) \
38 $(SGSCOMMONOBJ) \
38 $(TOOLOBJS) \
39 $(ELFCAPOBJ) \
40 $(P_ASOBJS) $(P_COMOBJS) $(P_MACHOBJS) $(G_MACHOBJS) \
41 $(S_ASOBJS) $(S_COMOBJS) $(S_MACHOBJS) $(CP_MACHOBJS)

43 COMOBJS= $(P_COMOBJS) $(S_COMOBJS)
44 ASOBJS= $(P_ASOBJS) $(S_ASOBJS)
45 MACHOBJS= $(P_MACHOBJS) $(S_MACHOBJS)
46 NOCTFOBJS= $(ASOBJS)

48 include $(SRC)/lib/Makefile.lib
49 include $(SRC)/cmd/sgs/Makefile.com

51 SRCDIR = ./common
52 ELFCAP = $(SRC)/common/elfcap
53 PLAT = $(VAR_PLAT_$(BASEPLAT))

55 # DTrace needs an executable data segment.
56 MAPFILE.NED=
```

```

58 MAPFILES += $(MAPFILE-ORDER)

60 # For the libc/libthread unified world:
61 # This library needs to be placed in /lib to allow
62 # dlopen() functionality while in single-user mode.
63 ROOTFS_DYNLIB= $(RTLD:=%$(ROOTFS_LIBDIR)/%)
64 ROOTFS_DYNLIB64= $(RTLD:=%$(ROOTFS_LIBDIR64)/%)

66 # For the libc/libthread separated world:
67 # A version of this library needs to be placed in /etc/lib to allow
68 # dlopen() functionality while in single-user mode.
69 ETCLIBDIR= $(ROOT)/etc/lib
70 ETCDYNLIB= $(RTLD:=%$(ETCLIBDIR)/%)

72 ROOTDYNLIB= $(RTLD:=%$(ROOTFS_LIBDIR)/%)
73 ROOTDYNLIB64= $(RTLD:=%$(ROOTFS_LIBDIR64)/%)

76 FILEMODE = 755

78 CPPFLAGS += -I$(SRC)/lib/libc/inc \
79 -I$(SRC)/uts/common/krtld \
80 -I$(SRC)/uts/$(PLAT) \
81 -I$(SRC)/uts/$(PLAT)/krtld \
82 -I$(SRCBASE)/lib/libc/inc \
83 -I$(SRCBASE)/uts/common/krtld \
84 -I$(SRCBASE)/uts/$(PLAT)/krtld \
85 -I$(SRC)/common/sgsrcid \
86 -I$(ELFCAP) \
87 $(CPPFEATUREMACROS)

86 ASFLAGS= -P -D_ASM $(CPPFLAGS)
87 LDLIB = -L ../../libld/$(MACH)
88 RTLDLIB = -L ../../librtld/$(MACH)

90 CERRWARN += -gcc=-Wno-uninitialized
91 CERRWARN += -gcc=-Wno-unused-variable
92 CERRWARN += -gcc=-Wno-switch

94 # not linted
95 SMATCH=off

97 # These definitions require that libc be built in the same workspace
98 # as the run-time linker and before the run-time linker is built.
99 # This is required for the system's self-consistency in any case.
100 CPICLIB = $(VAR_RTLD_CPICLIB)
101 CPICLIB64 = $(VAR_RTLD_CPICLIB64)
102 CLIB = -lc_pic

104 LDLIBS += $(CONVLIBDIR) -lconv \
104 LDLIBS += $(CONVLIBDIR) $(CONV_LIB) \
105 $(CPICLIB) $(CLIB) \
106 $(LDBBGLIBDIR) -lldbdb \
106 $(LDBBGLIBDIR) $(LDBBG_LIB) \
107 $(RTLDLIB) -lrtl \
108 $(LDLIB) -lld \
108 $(LDLIB) $(LD_LIB)

110 DYNFLAGS += -i -e _rt_boot $(VERSREF) $(ZNODEOPEN) \
111 $(ZINTERPOSE) -zdttrace=dtrace_data '-R$$ORIGIN'

113 BUILD.s= $(AS) $(ASFLAGS) $< -o $@

115 BLTDEFS= msg.h
```

```
116 BLTDATA=          msg.c
117 BLTMESG=          $(SGMSGDIR)/rtld
119 BLTFILES=          $(BLTDEFS) $(BLTDATA) $(BLTMESG)
121 SGMSGCOM=          ./common/rtld.msg
122 SGMSG32=          ./common/rtld.32.msg
123 SGMSG64=          ./common/rtld.64.msg
124 SGMSGPARC=          ./common/rtld.sparc.msg
125 SGMSGPARC32=        ./common/rtld.sparc32.msg
126 SGMSGPARC64=        ./common/rtld.sparc64.msg
127 SGMSGINTEL=        ./common/rtld.intel.msg
128 SGMSGINTEL32=      ./common/rtld.intel32.msg
129 SGMSGINTEL64=      ./common/rtld.intel64.msg
130 SGMSGCHK=          ./common/rtld.chk.msg
131 SGMSGTARG=          $(SGMSGCOM)
132 SGMSGALL=          $(SGMSGCOM) $(SGMSG32) $(SGMSG64) \
133           $(SGMSGPARC) $(SGMSGPARC32) $(SGMSGPARC64) \
134           $(SGMSGINTEL) $(SGMSGINTEL32) $(SGMSGINTEL64)
136 SGMSGFLAGS1=        $(SGMSGFLAGS) -m $(BLTMESG)
137 SGMSGFLAGS2=        $(SGMSGFLAGS) -h $(BLTDEFS) -d $(BLTDATA) -n rtld_msg
139 SRCS=              $(AVLOBJ:%.o=$(VAR_AVLDIR)/%.c) \
140           $(DTROBJ:%.o=$(VAR_DTRDIR)/%.c) \
141           $(SGSCOMMONOBJ:%.o=$(SGSCOMMON)/%.c) \
142           $(TOOLOBSJ:%.o=$(SGSTOOLS)/common/%.c) \
143           $(COMOBSJ:%.o=../common/%.c) $(MACHOBJS:%.o=%c) $(BLTDATA) \
144           $(G_MACHOBJS:%.o=$(SRC)/uts/$(PLAT)/krtd/%.c) \
145           $(CP_MACHOBJS:%.o=$(SRCBASE)/uts/$(PLAT)/krtd/%.c) \
146           $(ASOJBS:%.o=../$(MACH)/%.c) \
147           $(ASOJBS:%.o=%s)
148 CLEANFILES +=      $(CRTS) $(BLTFILES)
149 CLOBBERFILES +=    $(RTLD)
```

new/usr/src/cmd/sgs/rtld/Makefile.targ

```
*****
2484 Sun Jul 14 19:12:29 2019
new/usr/src/cmd/sgs/rtld/Makefile.targ
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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31 # Don't generate separate sections for this module
32 pics/debugdata.o := XFFLAG=

34 # Since we use RTLD rather than DYNLIB, we must explicitly hook in ctfmerge.
35 $(RTLD) := CTFMERGE_POST = $(CTFMERGE_LIB)

37 pics/%.o: %.s
38 $(BUILD.s)
39 $(POST_PROCESS_S_O)

41 pics/%.o: $(CRTSRCS)/%.s
42 $(BUILD.s)
43 $(POST_PROCESS_S_O)

45 pics/%.o: %.c
46 $(COMPILE.c) -o $@ $<
47 $(POST_PROCESS_O)

49 pics/%.o: ./common/%.c
50 $(COMPILE.c) -o $@ $<
51 $(POST_PROCESS_O)

53 pics/%.o: $(VAR_AVLDIR)/%.c
54 $(COMPILE.c) -o $@ $<
55 $(POST_PROCESS_O)

57 pics/%.o: $(VAR_DTRDIR)/%.c
58 $(COMPILE.c) -o $@ $<
```

1

new/usr/src/cmd/sgs/rtld/Makefile.targ

```
59 $(POST_PROCESS_O)

61 pics/%.o: $(SGSCOMMON)/%.c
61 pics/%.o: $(SGSTOOLS)/common/%.c
62 $(COMPILE.c) -o $@ $<
63 $(POST_PROCESS_O)

65 pics/%.o: $(SRC)/uts/$(PLAT)/krtdl/%.c
65 pics/%.o: $(SRCBASE)/uts/$(PLAT)/krtdl/%.c
66 $(COMPILE.c) -o $@ $<
67 $(POST_PROCESS_O)

69 pics/elfcap.o: $(ELFCAP)/elfcap.c
70 $(COMPILE.c) -o $@ $(ELFCAP)/elfcap.c
71 $(POST_PROCESS_O)

73 $(RTLD):
    pics $(PICS) $(CRTS)
    $(LD) -o $@ -dy -G $(DYNFLAGS) $(CRTI) $(PICS) \
    $(LD_USE_PROTO)ld -o $@ -dy -G $(DYNFLAGS) $(CRTI) $(PICS) \
    $(LDLIBS) $(CRTN)
    $(POST_PROCESS_SO)

78 delete:
79     -$(RM) $(RTLD)

81 $(ROOTFS_LIBDIR)/%: %
82     $(INS.file)

84 $(ETCLIBDIR)/%: %
85     $(INS.file)

87 include $(SRC)/lib/Makefile.targ
88 include $(SRC)/cmd/sgs/Makefile.targ

90 # Derived source and header files (messaging).

92 catalog: $(BLTMESG)

94 chkmsg := SGMSGCHK=../common/rtld.chk.msg

96 chkmsg:
    $(SRCS) $(CHKSRC)
    sh $(CHKMSG) $(CHKMSGFLAGS) $(SRCS) $(CHKSRC)
    99 $(BLTDEFS) + \
100 $(BLTDATA) : $(SGMSGTARG)
101     $(SGMSG) $(SGMSGFLAGS2) $(SGMSGTARG)

103 $(BLTMESG) :
    $(SGMSGALL)
    $(SGMSG) $(SGMSGFLAGS1) $(SGMSGALL)
104
```

2

new/usr/src/cmd/sgs/rtld/mdbmod/Makefile.com

1948 Sun Jul 14 19:12:29 2019

new/usr/src/cmd/sgs/rtld/mdbmod/Makefile.com

11461 should use a native link-editor during the build

11463 SUNWnld has passed its use-by date

11464 cmd/sgs/tools should contain tools, not common code

11465 sgsmg should be built with the rest of the build tools

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26 LIBRARY=      rtld.a
27 VERS=         .1

29 COMOJBS=      rtld.o
30 BLTOBJ=       msg.o

32 OBJECTS=     $(BLTOBJ)  $(COMOJBS)

34 # include library definitions
35 include        $(SRC)/lib/Makefile.lib
36 include        $(SRC)/cmd/sgs/Makefile.com

38 SGMSGALL=    rtld.msg

40 MAPFILES =   ./common/mapfile
41 SRCS=        $(OBJECTS:%.o=../common/%.c)

43 BLTDEFS=     msg.h
44 BLTDATA=      msg.c
45 BLTFILES=    $(BLTDEFS) $(BLTDATA)

47 SCMSGTARG=   ../common/rtld.msg
48 SGMSGALL=    ../common/rtld.msg
49 SGMSGFLAGS += -h $(BLTDEFS) -d $(BLTDATA)

51 CERRWARN +=  -_gcc=-Wno-uninitialized

53 MSGSRCS=    $(COMOJBS:%.o=../common/%.c) $(BLTDATA)

55 FILEMODE=   555

57 DYNLIB=      ld.so
```

1

new/usr/src/cmd/sgs/rtld/mdbmod/Makefile.com

59 LIBS = \$(DYNLIB)

```
61 CPPFLAGS += -I. -I../../common -I../../include \ 
62           -I../../../../include/$(MACH) \
63           -I$(SRC)/lib/libc/inc \
64           -I$(SRC)/uts/common/krtld \
65           -I$(SRC)/common/sgsrtcid \
66           -I$(SRC)/uts/$(ARCH)/sys
```

68 DYNFLAGS += \$(VERSREF)

```
69 LDLIBS +=  $(CONVLIBDIR) -lconv -lc
69 LDLIBS +=  $(CONVLIBDIR) $(CONV_LIB) -lc
```

71 ROOTMDBLIB= \$(ROOT)/usr/lib/mdb/proc

72 ROOTMDBLIB64= \$(ROOTMDBLIB)/\$(MACH64)

73 ROOTMDBLIBS= \$(ROOTMDBLIB)/\$(MTARG)\$(DYNLIB)

75 CLEANFILES += \$(BLTFILES)

2

```
new/usr/src/cmd/sgs/rtld/sparc/Makefile
```

```
*****
```

```
2397 Sun Jul 14 19:12:30 2019
```

```
new/usr/src/cmd/sgs/rtld/sparc/Makefile
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWold has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmsg should be built with the rest of the build tools
```

```
*****
```

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25 #
```

```
27 # Object lists are organized into primary (most frequently used code) and
28 # secondary lists (less frequently used code, ie. a.out support).
```

```
30 P_COMOJBS= debugdata.o \
31     analyze.o      elf.o          external.o    globals.o \
32     malloc.o       paths.o        setup.o       util.o \
33     dlfcn.o        config_elf.o  locale.o      tsort.o \
34     remove.o       move.o        tls.o         cap.o
```

```
36 S_COMOJBS= debug.o      audit.o       object.o     cache_a.out.o \
37     a.out.o
```

```
39 G_MACHOBJS= doreloc.o
```

```
41 P_MACHOBJS= sparc_elf.o _setup.o
```

```
43 CP_MACHOBJS= common_sparc.o
```

```
45 S_MACHOBJS= sparc_a.out.o
```

```
47 P_ASOBJS= boot.o      boot_elf.o    caller.o
```

```
49 S_ASOBJS= boot_a.out.o
```

```
51 CRTSRCS= ../../../../../../lib/crt/sparc
52 CRTI= pics/crti.o
53 CRTN= pics/crtn.o
54 CRTS= $(CRTI)      $(CRTN)
```

```
56 CHKSRCs= $(SRC)/uts/common/krtld/reloc.h
56 CHKSRCs= $(SRCBASE)/uts/common/krtld/reloc.h
```

```
1
```

```
new/usr/src/cmd/sgs/rtld/sparc/Makefile
```

```
58 BASEPLAT = sparc
```

```
60 include $(SRC)/Makefile.master
```

```
62 # This is safe because linking is done only with the primary compiler.
```

```
63 MAPFILE-ORDER = ../../common/mapfile-order-devpro
```

```
64 $(__GNUC)MAPFILE-ORDER = ../../common/mapfile-order-gcc
```

```
66 include $(SRC)/cmd/sgs/rtld/Makefile.com
```

```
68 # Add any a.out and machine specific flags.
```

```
70 CPPFLAGS += -I../../../../uts/sparc/krtld -DA_OUT
```

```
71 CFLAGS += -xregs=no%appl
```

```
72 ASFLAGS += $(AS_PICFLAGS)
```

```
73 ADBGENCFLAGS += -erroff=%all
```

```
74 ADBGENFLAGS += -mlip32
```

```
75 ADBSUB= $(ADBSUB32)
```

```
76 SONAME= /lib/ld.so.1
```

```
78 SGMSGTARG += $(SGMSGSPARC) $(SGMSGSPARC32) $(SGMSG32)
```

```
80 .KEEP_STATE:
```

```
82 all: $(RTLD)
```

```
84 install: all $(ROOTDYNLIB)
```

```
86 adbmacros: adb .WAIT $(ADBSCRIPTS)
```

```
88 adbinstall: adbmacros .WAIT $(ROOTADB)
```

```
90 include $(SRC)/cmd/sgs/rtld/Makefile.targ
```

```
2
```

new/usr/src/cmd/sgs/rtld/sparcv9/Makefile

```
*****
2666 Sun Jul 14 19:12:30 2019
new/usr/src/cmd/sgs/rtld/sparcv9/Makefile
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
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27 # Object lists are organized into primary (most frequently used code) and
28 # secondary lists (less frequently used code, ie. a.out support).

30 P_COMOJBS= debugdata.o \
31     analyze.o      elf.o          external.o    globals.o \
32     malloc.o       paths.o        setup.o       util.o \
33     dlfcn.o        config_elf.o  locale.o      tsort.o \
34     remove.o       move.o        tls.o         cap.o

36 S_COMOJBS= debug.o      audit.o       object.o

38 G_MACHOBJS= doreloc.o

40 P_MACHOBJS= sparc_elf.o _setup.o

42 CP_MACHOBJS= common_sparc.o

44 S_MACHOBJS=

46 P_ASOBJS= boot.o       boot_elf.o    caller.o

48 S_ASOBJS=

50 CRTSRCS=      ../../../../../lib/crt/sparc
51 CRTI=         pics/crti.o
52 CRTN=         pics/crtn.o
53 CRTS=         $(CRTI)      $(CRTN)

55 CHKSRCS=      $(SRC)/uts/common/krtld/reloc.h
55 CHKSRCS=      $(SRCBASE)/uts/common/krtld/reloc.h

57 BASEPLAT = sparc
```

1

new/usr/src/cmd/sgs/rtld/sparcv9/Makefile

```
59 include      $(SRC)/Makefile.master
61 # We build sparc objects with cc by default
62 MAPFILE-ORDER =      ./common/mapfile-order-devpro
63 $(__GNUC64)MAPFILE-ORDER =      ./common/mapfile-order-gcc
65 include      $(SRC)/cmd/sgs/rtld/Makefile.com
66 include      $(SRC)/lib/Makefile.lib.64
68 # Add any machine specific flags.
70 CPPFLAGS += -I../../../../uts/sparc/krtld
71 CFLAGS += -xregs=no%appl
72 ASFLAGS += -s $(AS_PICFLAGS) -D__sparcv9 -D_ELF64 $(sparcv9_XARCH)
73 ADBGENFLAGS += -mlp64
74 ADBGENCFLAGS += -erroff=%all
75 ADBSUB= $(ADBSUB64)
76 CPPFLAGS += -D_ELF64
77 SONAME= /lib/sparcv9/ld.so.1

79 SGMSGTARG += $(SGMSGSPARC) $(SGMSGSPARC64) $(SGMSG64)
81 LDLIB = -L ../../libld/$(MACH64)
82 RTLDLIB = -L ../../librtld/$(MACH64)
84 CPICLIB = $(CPICLIB64)
85 LDDBGLIBDIR = $(LDDBGLIBDIR64)
86 CONVLIBDIR = $(CONVLIBDIR64)

89 .KEEP_STATE:
91 all:          $(RTLD)
93 install:      all $(ROOTDYNLIB64)
95 adbmacros:   adb .WAIT $(ADBSRIPTS)
97 adbinstall:  adbmacros .WAIT $(ROOTADB64)
99 pics/%.o:    .../sparc/%.c
100             $(COMPILE.c) -o $@ $<
101             $(POST_PROCESS_O)
103 include      $(SRC)/cmd/sgs/rtld/Makefile.targ
104 include      ../../Makefile.sub.64
```

2

```
*****
1402 Sun Jul 14 19:12:31 2019
new/usr/src/cmd/sgs/size/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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29 PROG= size
31 include      $(SRC)/cmd/Makefile.cmd
32 include      $(SRC)/cmd/sgs/Makefile.com

34 COMOJFS= main.o process.o fcns.o

36 SRCS=      $(COMOJFS:%.o=../common/%.c)

38 CERRWARN += -_gcc=-Wno-unused-variable

40 OJFS =      $(COMOJFS)
41 .PARALLEL:  $(OJFS)

43 LDFLAGS =   '$(LDPASS)-R$$ORIGIN/../../lib'
44 LDFLAGS64 = '$(LDPASS)-R$$ORIGIN/../../../../lib/$(MACH64)'
45 LDFLAGS +=   $(LDFLAGS)

47 LDLIBS +=   $(CONVLIBDIR) -lconv $(ELFLIBDIR) -lelf
47 LDLIBS +=   $(CONVLIBDIR) $(CONV_LIB) $(ELFLIBDIR) -lelf

49 CLEANFILES += $(OJFS)
```

new/usr/src/cmd/sgs/tools/Makefile

```
*****  
1632 Sun Jul 14 19:12:31 2019  
new/usr/src/cmd/sgs/tools/Makefile  
11461 should use a native link-editor during the build  
11463 SUNWold has passed its use-by date  
11464 cmd/sgs/tools should contain tools, not common code  
11465 sgsmg should be built with the rest of the build tools  
*****  
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24 #  
25 # Makefile to support tools used for linker development. GEXECS are those  
26 # tools that are installed for distribution in the SUNWorld package.  
27 #  
28 # o 'c' programs are built from the $(MACH)/Makefile  
29 #  
30 # o info: summarizes relocation overhead, and a sorted string listing.  
31 #  
32 # o proto: creates a proto directory structure suitable for sgs make  
33 # installs (basically a subset of Targetdirs).  
  
35 #  
36 # Copyright 2019 OmniOS Community Edition (OmniOSce) Association.  
37 #  
38 include      $(SRC)/Makefile.master  
  
41 SUBDIRS=      $(MACH)  
41 LSSRCS=      info.sh \  
42           proto.sh  
  
44 SRCS=        $(LSSRCS)  
  
46 LEXECS=      $(LSSRCS:%.sh=%)  
  
48 ROOTDIR =     $(ROOT)/opt/SUNWold/bin  
49 ROOTPROGS =   $(GEXECS:%= $(ROOTDIR)/%)  
50 ROOTPROGS +=  $(PSRCS:%= $(ROOTDIR)/%)  
  
52 $(ROOTPROGS) := FILEMODE=755  
  
54 SUBDIRS=      $(MACH) man  
  
43 all:=        TARGET= all  
44 install:=    TARGET= install
```

1

new/usr/src/cmd/sgs/tools/Makefile

```
45 clean:=        TARGET= clean  
46 clobber:=    TARGET= clobber  
  
49 .KEEP_STATE:  
  
51 all install clean clobberall: $(SUBDIRS)  
64 all:          $(EXECS) $(SUBDIRS)  
  
66 install:      all $(ROOTPROGS) $(SUBDIRS)  
  
68 clean clobber: $(SUBDIRS)  
69             $(RM) $(RMFLAGS) $(EXECS)  
  
53 delete:  
  
73 %:            %.ksh  
74             $(RM) $@  
75             cat $< > $@  
76             chmod +x $@  
  
55 $(SUBDIRS):  FRC  
56             @cd $@; pwd; $(MAKE) $(TARGET)  
  
81 $(ROOTDIR)/%: %  
82             $(INS.file)  
  
84 $(ROOTDIR)/%: scoping/%  
85             $(INS.file)  
  
58 FRC:  
  
89 execs:       $(EXECS)
```

2

```
new/usr/src/cmd/sgs/tools/Makefile.com
```

```
*****
```

```
1555 Sun Jul 14 19:12:32 2019
```

```
new/usr/src/cmd/sgs/tools/Makefile.com
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWnld has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmsg should be built with the rest of the build tools
```

```
*****
```

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```

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27 #
```

```
29 #
30 # Makefile to support tools used for linker development:
31 #
32 # chkmsg      - checks that sgsmsg is used correctly
33 # piglatin    - generates phone message catalogs for testing
34 #   o   sgsmsg creates message headers/arrays/catalogs (a native tool).
35 #
36 #endif /* ! codereview */
37 # Note, these tools are not part of the product.
38 #
39 # cmd/sgs/tools/Makefile.com
```

```
41 include      $(SRC)/cmd/Makefile.cmd
43 include      $(SRC)/cmd/sgs/Makefile.com
45 OBJECTS=      piglatin.o
34 SGSPROTO=    ../../proto/$(MACH)
36 COMOJBS=
38 NAOJBS=      piglatin.o
40 OBJECTS=      $(COMOJBS)  $(NAOJBS)
42 AVLOBJ=      avl.o
43 TOOL_OJBS=    sgsmsg.o string_table.o findprime.o assfail.o
44 SGMSG_OJBS=   $(TOOL_OJBS) $(AVLOBJ)
45 SGMSG_SRCS=   $(TOOL_OJBS):%o=../common/%.c) \

```

1

```
new/usr/src/cmd/sgs/tools/Makefile.com
```

```
46             $(AVLOBJ):%o=$(VAR_AVLDIR)/%.c
48 $(SGMSG_OJBS) := NATIVE_CFLAGS += -I../../include $(VAR_TOOLS_CPPFLAGS)
47 NATIVE=          $(OBJECTS:%.o=%)
48 SRCS=           $(OBJECTS:%.o=../../common/%.c)
50 PROGS=          $(COMOJBS:%.o=%)
51 NATIVE=          $(NATOJBS:%.o=%) sgsmsg
52 SRCS=           $(COMOJBS:%.o=../../common/%.c) $(NATOJBS:%.o=../../common/%.c)
50 CPPFLAGS +=     $(VAR_TOOLS_CPPFLAGS)
55 LDFLAGS +=      $(CC_USE_PROTO)
56 CLEANFILES +=   $(SGMSG_OJBS)
52 ROOTDIR=        $(ROOT)/opt/SUNWnld
53 ROOTPROGS=      $(PROGS:%=$(ROOTDIR)/bin/%)
55 FILEMODE=       0755
57 # not linted
58 SMATCH=off
```

2

new/usr/src/cmd/sgs/tools/Makefile.targ

```
*****
1374 Sun Jul 14 19:12:32 2019
new/usr/src/cmd/sgs/tools/Makefile.targ
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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28 #

30 \$(ROOTDIR)/bin/%: %
31 \$(INS.file)

33 \$(ROOTDIR)/lib/%: %
34 \$(INS.file)

36 sgsmsg: \$(SGSMMSG_OBJS)
37 \$(NATIVECC) \$(DEBUG) \$(NATIVE_CFLAGS) \
38 -o \$@ \$(SGSMMSG_OBJS)

40 sgsmsg.o: ./common/sgsmmsg.c
41 \$(NATIVECC) \$(DEBUG) \$(NATIVE_CFLAGS) -c ./common/sgsmmsg.c

43 string_table.o: ./common/string_table.c
44 \$(NATIVECC) \$(DEBUG) \$(NATIVE_CFLAGS) -c \
45 ./common/string_table.c

47 avl.o: \$(VAR_AVLDIR)/avl.c
48 \$(NATIVECC) \$(DEBUG) \$(NATIVE_CFLAGS) -c \
49 \$(VAR_AVLDIR)/avl.c

36 piglatin: ./common/piglatin.c
37 \$(NATIVECC) \$(NATIVE_CFLAGS) -o \$@ ./common/piglatin.c

39 %:
40 %.o
41 \$(LINK.c) -o \$@ \$< \$(LDLIBS)
42 \$(POST_PROCESS)

43 %.o:
44 ./common/%.c

1

new/usr/src/cmd/sgs/tools/Makefile.targ

```
44     $(COMPILE.c) -o $@ $<
45     $(POST_PROCESS_O)

62 catalog:      sgsmsg
47 clobber:      clean
48     $(RM) $(PROGS) $(NATIVE) $(CLOBBERFILES)

50 clean:        $(RM) $(OBJECTS) $(CLEANFILES)
```

2

```
*****
3896 Sun Jul 14 19:12:33 2019
new/usr/src/cmd/sgs/tools/chkmsg.11
11461 should use a native link-editor during the build
11463 SUNWORLD has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
*****
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19 .\" fields enclosed by brackets "[]" replaced with your own identifying
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21 .\
22 .\" CDDL HEADER END
23 .\
24 .if n .tr \-
25 .TH chkmsg 11 "Apr 5, 1997"
26 .TH chkmsg 11 "5 Apr 1997"
26 .SH NAME
27 chkmsg \- cross check messages
28 .SH SYNOPSIS
29 .B chkmsg
30 .BI [ -64 ]
31 .BI file
32 .BI source_files ...
33 .SH AVAILABILITY
34 Internal to the linker group
35 .SH DESCRIPTION
36 chkmsg checks the message identifiers defined in the input file
37 and the message identifier used in the input source_files. The input
38 file is the input file which is used by the sgsmg command.
39 .P
40 The chkmsg command reads the input file and
41 generates two sets of message identifiers.
42 The first set is
43 the identifiers defined in between the _START_ and _END_ key words.
44 These identifiers are intended to be referenced by MSG_INTL().
45 This set is named as MSG_INTL_FROM_INPUT.
46 .P
47 The other set is
48 the identifiers defined after the _END_ key words.
49 These identifiers are intended to be referenced by MSG_ORIG().
50 This set is named as MSG_ORIG_FROM_INPUT.
51 .P
52 The chkmsg command reads the specified input source_files and
53 generates two sets of message identifiers. The first set is
54 the message identifiers referenced by MSG_INTL() macro.
55 This set is named as MSG_INTL_FROM_SRC.
56 .P
```

```
57 The other set is the message identifiers referenced by the
58 MSG_ORIG() macro.
59 This set is named as MSG_ORIG_FROM_SRC.
60 .P
61 The chkmsg command compares MSG_INTL_FROM_SRC and MSG_INTL_FROM_INPUT.
62 If these two sets are different, the command gives the warning
63 message and print the identifiers which are different.
64 .P
65 The chkmsg command compares MSG_ORIG_FROM_SRC and MSG_ORIG_FROM_INPUT.
66 If these two sets are different, the command gives the warning
67 message and print the identifiers which are different.
68 .P
69 The identifiers in MSG_INTL_FROM_SRC and MSG_ORIG_FROM_SRC are
70 extracted from the source files only if they are
71 directly passed to MSG_INTL() or MSG_ORIG(). Therefore, for example:
72 .RS
73 .nf
74 .ft 3
75     char *msg;
76     |
77     msg = MSG_ERROR_01;
78     |
79     printf(MSG_INTL(msg));
80     |
81 .fi
82 .RE
83 the identifier MSG_ERROR_01 will not be included in MSG_INTL_FROM_SRC set.
84 .P
85 There are two key words which can be used in the input file
86 to control whether the identifier will be extracted into
87 MSG_{INTL,ORIG}_FROM_ORIG or not. If the identifier are
88 surrounded by _CHKMSG_SKIP_BEGIN_{sparc,i386}
89 and _CHKMSG_SKIP_END_{sparc,i386}, then
90 the identifiers will not be included in the output set.
91 The architecture being checked should be specified after
92 the key works.
93 These key words should be specified in the comment lines.
94 For example, the input file could contain:
95 .RS
96 .nf
97 .ft 3
98     # _CHKMSG_SKIP_BEGIN_ sparc
99     @ MSG_ERROR_01 "This identifier is not defined."
100    # _CHKMSG_SKIP_END_ sparc
101 .fi
102 .RE
103 .P
104 It is assumed that the message identifier names are composed
105 of only upper letters.
106 .SH OPTIONS
107 .TP 12
108 .B \-64
109 Use a 64-bit version of the machine type (i.e. sparc => sparcv9).
110 Note that this option must be specified first on the command line.
111 .SH "SEE ALSO"
112 .BR gencat (1),
113 .BR ld (1),
114 .BR msgfmt (1),
115 .BR catgets (3C),
116 .BR gettext (3C).
117 .BR sgsmg (1ONBLD).
118 .BR gettext (3I).
119 .br
120 .TZ LLM
121 .if n .tr \-\-
```

```
new/usr/src/cmd/sgs/tools/chkmsg.sh
```

```
*****
3195 Sun Jul 14 19:12:34 2019
new/usr/src/cmd/sgs/tools/chkmsg.sh
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
*****
```

```
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26#
27# ident "%Z%M% %I%      %E% SMI"
28 TOOLDIR="${SRC}/cmd/sgs/tools/"
30#
31# remove the temporary files
32#
33 rm -f CATA_MSG_INTL_LIST CATA_MSG_ORIG_LIST
34 rm -f MSG_INTL_LIST MSG_ORIG_LIST
36 while getopts "m:" Arg
37 do
38     case $Arg in
39         m)      awk -f ${TOOLDIR}/catalog.awk $OPTARG ;;
40         \?)      echo "usage: chkmsg -m msgfile source-files" ; exit 1 ;;
41     esac
42 done
43 shift `expr $OPTIND - 1'
45 if [ $# -eq 0 ]; then
46     echo "usage: chkmsg -m msgfile source-files"
47     exit 1
48 fi
50 #
51 # Sort the MSG_INTL() and MSG_ORIG() entries. Note, messages can come in _32
52 # and _64 flavors - if so strip the suffix and uniquify the output.
53 #
54 if [ -s CATA_MSG_INTL_LIST ] ; then
55     sed -e "s/_32$//" -e "s/_64$//" CATA_MSG_INTL_LIST | sort | uniq > _TMP
56     mv _TMP CATA_MSG_INTL_LIST
57 fi
```

```
1
```

```
new/usr/src/cmd/sgs/tools/chkmsg.sh
```

```
58 if [ -s CATA_MSG_ORIG_LIST ] ; then
59     sed -e "s/_32$//" -e "s/_64$//" CATA_MSG_ORIG_LIST | sort | uniq > _TMP
60     mv _TMP CATA_MSG_ORIG_LIST
61 fi
63 #
64 # Generate the lists for the source files and sort them
65 #
66 awk -f ${TOOLDIR}/getmessage.awk      $*
68 if [ -s MSG_INTL_LIST ] ; then
69     sed -e "s/_32$//" -e "s/_64$//" MSG_INTL_LIST | sort | uniq > _TMP
70     mv _TMP MSG_INTL_LIST
71 fi
72 if [ -s MSG_ORIG_LIST ] ; then
73     sed -e "s/_32$//" -e "s/_64$//" MSG_ORIG_LIST | sort | uniq > _TMP
74     mv _TMP MSG_ORIG_LIST
75 fi
77 #
78 # Start checking
79 #
80 Error=0
82 #
83 # Check MESG_INTL message
84 #
85 comm -23 CATA_MSG_INTL_LIST MSG_INTL_LIST > _TMP 2> /dev/null
86 if [ -s _TMP ] ; then
87     echo
88     echo "messages exist between _START_ and _END_ but do not use MSG_INTL()"
89     cat _TMP | sed "s/^/      /"
90     Error=1
91 fi
92 rm -f _TMP
94 comm -13 CATA_MSG_INTL_LIST MSG_INTL_LIST > _TMP 2> /dev/null
95 if [ -s _TMP ] ; then
96     echo
97     echo "use of MSG_INTL() but messages do not exist between _START_ and _END_"
98     cat _TMP | sed "s/^/      /"
99     Error=1
100 fi
101 rm -f _TMP
103 #
104 # Check MESG_ORIG message
105 #
106 comm -23 CATA_MSG_ORIG_LIST MSG_ORIG_LIST > _TMP 2> /dev/null
107 if [ -s _TMP ] ; then
108     echo
109     echo "messages exist after _END_ but do not use MSG_ORIG()"
110     cat _TMP | sed "s/^/      /"
111     Error=1
112 fi
113 rm -f _TMP
115 comm -13 CATA_MSG_ORIG_LIST MSG_ORIG_LIST > _TMP 2> /dev/null
116 if [ -s _TMP ] ; then
117     echo
118     echo "use of MSG_ORIG() but messages do not exist after _END_"
119     cat _TMP | sed "s/^/      /"
120     Error=1
121 fi
122 rm -f _TMP
```

```
2
```

```
124 #
125 # remove the temporary files
126 #
127 rm -f CATA_MSG_INTL_LIST CATA_MSG_ORIG_LIST
128 rm -f MSG_INTL_LIST MSG_ORIG_LIST
130 exit $Error
```

```
*****
1066 Sun Jul 14 19:12:34 2019
new/usr/src/cmd/sgs/tools/i386/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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19 #
20 # CDDL HEADER END
21 #
22 #
23 #ident "%Z%%M% %I%      %E% SMI"
24 #
25 include      $(SRC)/cmd/sgs/tools/Makefile.com
26 .KEEP_STATE:
27
28 all:          $(NATIVE) $(PROGS) $(LIBS)
29 all:          native $(PROGS) $(LIBS)
30
31 native:       $(NATIVE)
32
33 install:     all $(ROOTPROGS) $(ROOTALIBS)
34 include      $(SRC)/cmd/sgs/tools/Makefile.targ
```

```
new/usr/src/cmd/sgs/tools/readme_revision
```

```
*****
3779 Sun Jul 14 19:12:35 2019
new/usr/src/cmd/sgs/tools/readme_revision
11461 should use a native link-editor during the build
11463 SUNWORLD has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

```
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23# CDDL HEADER END
24#
25#pragma ident "%Z%%M% %I%      %E% SMI"
```

```
25#
26# Generate a revision number for the sgs linker components, based
27# on usr/src/cmd/sgs/tools/SUNWORLD-README.
28# on usr/src/cmd/sgs/packages/common/SUNWORLD-README.
29#
30# usage: readme_revision [-d] [readme-file]
31#
32# This revision number used to be the SCCS revision id for that file,
33# in the form 1.xxx (where xxx was the revision). There were two benefits:
34# (1) You could examine the sccs revision log to determine the CR
35#     of the putback that created the revision.
36# (2) The revisions were monotonically increasing.
37#
38# In order to remove the hard wired dependence on sccs, this script generates
39# a replacement revision number, by returning the string '1.xxx', where
40# xxx is an integer giving the number of unique CR lines found in the file.
41# This means that the revision goes up by one for each CR we fix, which
42# makes intuitive sense, and is similar to the way the SCCS revision worked.
43#
44# If this is a debug/development build (-d option), then we include
45# additional information at the end of the revision:
46#
47#     - Workspace name
48#     - user
49#     - CR # of last item in the readme file
50#     - date,
51#
52# This extra information is useful when we need to identify SUNWORLD
53# linker packages in the field, and provides the information previously
54# supplied by (1) above.
```

```
1
```

```
new/usr/src/cmd/sgs/tools/readme_revision
```

```
55 #
56 use vars qw($script $usage $readme $cnt);
57 use vars qw($debug $last_cr $wsname $date);
58
59 # Use the basename of the name we're invoked under as the script name
60 @_ = split '/\//, $0;
61 $script = ${$_}[$#_];
62 $usage = "usage: $script [-d] [readme-file]\n";
63
64 $debug = 0;
65 # Process the options
66 while ((scalar(@ARGV) > 0) && ($_= $ARGV[0],/^-/)) {
67     ARG: {
68         if (/^-d$/) {
69             $debug = 1;
70             last ARG;
71         }
72     }
73
74     # If it gets here, the option is unknown.
75     die $usage;
76 }
77
78 } shift;
79 } unchanged portion omitted
```

```
127 # For debug mode, add diagnostic data
128 ($wsname = $ENV{'CODEMGR_WS'}) ne '' || ($wsname = 'unknown');
129 @wsname = split '/', $wsname;
130 $wsname = $wsname[$#wsname];
131
132 $date = 'date +%m/%d/%y';
133
134 print "1.$cnt:$wsname-$ENV{USER}-$last_cr-$date\n";
135
136 exit 0;
```

```
2
```

```
*****
1066 Sun Jul 14 19:12:36 2019
new/usr/src/cmd/sgs/tools/sparc/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

```
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18 # information: Portions Copyright [yyyy] [name of copyright owner]
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21 #
22 #
23 #ident "%Z%%M% %I%      %E% SMI"
24 #
25 include      $(SRC)/cmd/sgs/tools/Makefile.com
26 .KEEP_STATE:
27
28 all:          $(NATIVE) $(PROGS) $(LIBS)
29 all:          native $(PROGS) $(LIBS)
30
31 native:       $(NATIVE)
32
33 install:     all $(ROOTPROGS) $(ROOTALIBS)
34 include      $(SRC)/cmd/sgs/tools/Makefile.targ
```

new/usr/src/tools/Makefile

```
*****
4261 Sun Jul 14 19:12:36 2019
new/usr/src/tools/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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26 # Copyright (c) 2016, Chris Fraire <cfraire@me.com>.
27 # Copyright (c) 2019, Joyent, Inc.
28 # Copyright 2019 OmniOS Community Edition (OmniOSce) Association.
29 #

31 include ../Makefile.master

33 # Bootstrap problem: 'cw' must be built before anything else can be built.
34 # 'install.bin' should be built next, being the 'install' target dependency
35 # for everything else.
36 #
37 # Because of somewhat cyclic dependency between them, both cw and install.bin
38 # override the way we install binaries in their Makefiles.
39 BOOT_SUBDIRS= \
40     smatch \
41     .WAIT \
42     cw \
43     .WAIT \
44     install.bin \
45     .WAIT \
46     ctf

48 COMMON_SUBDIRS= \
49     codereview \
50     codesign \
51     cscope-fast \
52     env \
53     findunref \
54     lintdump \
55     make \
56     makesoftcore \
57     ndrgen \
58     onbld \
```

1

new/usr/src/tools/Makefile

```
59     protocmp \
60     protolist \
61     scripts \
62     sgs \
63     scripts

64 #
65 # special versions of commands for use only in build
66 #
67 UNSHIPPED_SUBDIRS = \
68     $(SGSMMSG) \
69     $(SGSLIBCINV) \
70     $(SGSLIBELF) \
71     $(SGSLIBLDBG) \
72     $(SGSLIBLD) \
73     $(SGSLD) \
74 #endif /* ! codereview */
75     localedef \
76     mandoc \
77     tic \
78     vtfontcvt \
79     zic

81 sparc_SUBDIRS= \
82     chk4ubin \
83     stabs \
84     tokenize

86 i386_SUBDIRS= \
87     aw \
88     cpcgen \
89     elfextract \
90     mbh_patch \
91     btxld

93 $(INTEL_BLD)sgs: aw
94 #endif /* ! codereview */

96 LINTSUBDIRS= \
97     codereview \
98     ctf \
99     cw \
100    findunref \
101    lintdump \
102    ndrgen \
103    protocmp \
104    protolist

106 SUBDIRS= \
107     $($MACH)_SUBDIRS \
108     $(COMMON_SUBDIRS) \
109     $(UNSHIPPED_SUBDIRS)

111 include Makefile.tools

113 ROOTDIRS= \
114     $(ROOTOPT) \
115     $(ROOTONBLD) \
116     $(ROOTONBLD)/bin \
117     $(ROOTONBLD)/bin/$MACH \
118     $(ROOTONBLD)/lib \
119     $(ROOTONBLD)/lib/$MACH \
120     $(ROOTONBLD)/lib/$MACH/64 \
121     $(ROOTONBLD)/lib/perl \
122     $(ROOTONBLD)/env \
123     $(ROOTONBLD)/etc \
```

2

```

124      $(ROOTONBLD)/etc/exception_lists \
125      $(ROOTONBLD)/share \
126      $(ROOTONBLD)/man \
127      $(ROOTONBLD)/man/man1onbld

129 $(BUILDPY2TOOLS)ROOTDIRS += \
130     $(ROOTONBLD)/lib/python$(PYTHON_VERSION) \
131     $(ROOTONBLD)/lib/python$(PYTHON_VERSION)/onbld \
132     $(ROOTONBLD)/lib/python$(PYTHON_VERSION)/onbld/Checks \
133     $(ROOTONBLD)/lib/python$(PYTHON_VERSION)/onbld/Scm

135 $(BUILDPY3TOOLS)ROOTDIRS += \
136     $(ROOTONBLD)/lib/python$(PYTHON3_VERSION) \
137     $(ROOTONBLD)/lib/python$(PYTHON3_VERSION)/onbld \
138     $(ROOTONBLD)/lib/python$(PYTHON3_VERSION)/onbld/_pycache_ \
139     $(ROOTONBLD)/lib/python$(PYTHON3_VERSION)/onbld/Checks \
140     $(ROOTONBLD)/lib/python$(PYTHON3_VERSION)/onbld/Checks/_pycache_ \
141     $(ROOTONBLD)/lib/python$(PYTHON3_VERSION)/onbld/Scm \
142     $(ROOTONBLD)/lib/python$(PYTHON3_VERSION)/onbld/Scm/_pycache_

144 all :=           TARGET= install
145 install :=      TARGET= install
146 clean :=        TARGET= clean
147 clobber :=      TARGET= clobber
148 lint :=         TARGET= lint
149 _msg :=          TARGET= _msg

151 .KEEP_STATE:

153 #
154 # Only create directories in the tools proto area when doing an actual
155 # build, not a clean or clobber.
156 #
157 DOROOTDIRS= $(ROOTDIRS)
158 clobber:= DOROOTDIRS=
159 clean:= DOROOTDIRS=

161 $(BUILDPY2TOOLS)DOROOTONBLDLIBPY= $(ROOTONBLDLIBPY)
162 clobber:= DOROOTONBLDLIBPY=
163 clean:= DOROOTONBLDLIBPY=

165 all install: $(SUBDIRS)

167 clean: $(SUBDIRS)

169 clobber: $(SUBDIRS)
170     $(RM) -rf $(TOOLS_PROTO)

172 lint: $(LINTSUBDIRS)

174 _msg: $(MSGSUBDIRS)

176 .PARALLEL: $(SUBDIRS) $(CLOSED_SUBDIRS)

178 $(SUBDIRS) $(CLOSED_SUBDIRS): $(BOOT_SUBDIRS)

180 $(BOOT_SUBDIRS) $(SUBDIRS): $$($(DOROOTDIRS) $$($(DOROOTONBLDLIBPY) FRC
181             @cd $@; pwd; $(MAKE) $(TARGET))

183 # Assume we don't have the install.bin available yet
184 $(ROOTDIRS):
185     $(MKDIR) -p -m $(DIRMODE) $@

187 $(ROOTONBLDLIBPY): $(ROOTDIRS)
188     $(RM) -r $@; $(SYMLINK) python$(PYTHON_VERSION) $@

```

```
190 FRC:
```

new/usr/src/tools/Makefile.tools

```
*****
3187 Sun Jul 14 19:12:36 2019
new/usr/src/tools/Makefile.tools
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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21 #
22 # Copyright (c) 1999, 2010, Oracle and/or its affiliates. All rights reserved.
23 #
24 # Definitions common to tool source.
25 #
26 include $(SRC)/Makefile.master

28 FILEMODE= 0555

30 TOOLS= $(SRC)/tools
31 TOOLS_PROTO= $(TOOLS)/proto/root_$(MACH)-nd
32 ROOTOPT= $(TOOLS_PROTO)/opt
33 ROOTONBLD= $(ROOTOPT)/onbld
34 ROOTONBLDBIN= $(ROOTONBLD)/bin
35 ROOTONBLDBINMACH= $(ROOTONBLD)/bin/$(MACH)
36 ROOTONBLDTC= $(ROOTONBLD)/etc
37 ROOTONBLDLIB= $(ROOTONBLD)/lib
38 ROOTONBLDLIBMACH= $(ROOTONBLD)/lib/$(MACH)
39 ROOTONBLDLIBMACH64= $(ROOTONBLD)/lib/$(MACH)/64
40 ROOTONBLDLIBPERL= $(ROOTONBLD)/lib/perl
41 ROOTONBLDLIBPY= $(ROOTONBLD)/lib/python
42 ROOTONBLDENV= $(ROOTONBLD)/env
43 ROOTONBLDMAN= $(ROOTONBLD)/man
44 ROOTONBLDMAN1ONBLD= $(ROOTONBLD)/man/man1onbld
45 ROOTONBLDETCAPI= $(ROOTONBLD)/etc/abi
46 ROOTONBLDETCEXCEPT= $(ROOTONBLD)/etc/exception_lists
47 ROOTONBLDSHARE= $(ROOTONBLD)/share

49 CC = $(NATIVECC)
50 CCC = $(NATIVECCC)
51 CFLAGS = $(NATIVE_CFLAGS)
52 CPPFLAGS= -D_TS_ERRNO
53 ELFSIGN_O= $(TRUE)
54 LDLIBS=
55 LDFLAGS= $(MAPFILE.NES:=-M%) $(MAPFILE.NED:=-M%) \
           $(MAPFILE.PGA:=-M%)

58 # Unset CW_LINKER so we run the default. We don't set LD here to avoid taking
```

1

new/usr/src/tools/Makefile.tools

```
59 # the journey through LD_ALTEXEC unnecessarily.
60 CW_LINKER=

62 #endif /* ! codereview */
63 ROOTONBLDPROG= $(PROG:=$(ROOTONBLDBIN)/%)
64 ROOTONBLDMACHPROG= $(PROG:=$(ROOTONBLDBINMACH)/%)
65 ROOTONBLDSHFILES= $(SHFILES:=$(ROOTONBLDBIN)/%)
66 ROOTONBLDMAKFILES= $(MAKEFILES:=$(ROOTONBLDBIN)/%)
67 ROOTONBLDMACHSHFILES= $(SHFILES:=$(ROOTONBLDBINMACH)/%)
68 ROOTONBLDMACHBINARIES= $(BINARIES:=$(ROOTONBLDBINMACH)/%)
69 ROOTONBLDETCFILES= $(ETCFILES:=$(ROOTONBLDETC)/%)
70 ROOTONBLDENVFILES= $(ENVFILES:=$(ROOTONBLDENV)/%)
71 ROOTONBLDPERLFILES= $(PERLFILES:=$(ROOTONBLDBIN)/%)
72 ROOTONBLDPERLMODULES= $(PERLMODULES:=$(ROOTONBLDLIBPERL)/%)
73 ROOTONBLDPYFILES= $(PYFILES:=$(ROOTONBLDBIN)/%)
74 ROOTONBLDMAN1ONBLDFILES= $(MAN1ONBLDFILES:=$(ROOTONBLDMAN1ONBLD)/%)
75 ROOTONBLDABIAUDITFILES= $(ABI_AUDITFILES:=$(ROOTONBLDETCAPI)/%)
76 ROOTONBLDEXCEPTFILES= $(EXCEPTFILES:=$(ROOTONBLDETCEXCEPT)/%)

78 # Break a chicken-and-egg dependency cycle for the tools build
79 SCCSCHECK=@echo would sccscheck

81 $(ROOTONBLDETCAPI)/%: %
82         $(INS.file)

84 $(ROOTONBLDETCEXCEPT)/%: $(CODEMGR_WS)/exception_lists/%
85         $(INS.file)

87 $(ROOTONBLDBIN)/%: %
88         $(INS.file)

90 $(ROOTONBLDBINMACH)/%: %
91         $(INS.file)

93 $(ROOTONBLDETC)/%: %
94         $(INS.file)

96 $(ROOTONBLDLIBPERL)/%: %
97         $(INS.file)

99 $(ROOTONBLDMAN1ONBLD)/%: %
100        $(INS.file)

102 $(ROOTONBLDENV)/%: %
103        $(INS.file)
```

2

```
*****
1158 Sun Jul 14 19:12:37 2019
new/usr/src/tools/chk4ubin/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
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25 #

27 include ../Makefile.tools

29 PROG      = chk4ubin

31 DYNFLAGS += '-R$$ORIGIN/../../lib/$(MACH)'
32 #endif /* ! codereview */
33 LDLIBS += -lelf

35 LINTFLAGS += -ux

37 .KEEP_STATE:

39 all: $(PROG)

41 install: all .WAIT $(ROOTONBLDMACHPROG)

43 lint:   lint_PROG

45 clean:
46     $(RM) $(PROG)

48 include ../Makefile.targ
```

```
new/usr/src/tools/ctf/dwarf/Makefile.com
```

```
*****
2080 Sun Jul 14 19:12:37 2019
new/usr/src/tools/ctf/dwarf/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

```
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5 # Copyright 2011, Richard Lowe.
6 #
7 # Copyright (c) 2018, Joyent, Inc.

9 include ../../Makefile.ctf

11 LIBRARY= libdwarf.a
12 VERS= .1

14 OBJECTS=dwarf_abbrev.o \
15     dwarf_addr_finder.o \
16     dwarf_alloc.o \
17     dwarf_arange.o \
18     dwarf_die_deliv.o \
19     dwarf_elf_access.o \
20     dwarf_error.o \
21     dwarf_form.o \
22     dwarf_frame.o \
23     dwarf_frame2.o \
24     dwarf_frame3.o \
25     dwarf_funcs.o \
26     dwarf_global.o \
27     dwarf_harmless.o \
28     dwarf_init_finish.o \
29     dwarf_leb.o \
30     dwarf_line.o \
31     dwarf_line2.o \
32     dwarf_loc.o \
33     dwarf_macro.o \
34     dwarf_names.o \
35     dwarf_original_elf_init.o \
36     dwarf_print_lines.o \
37     dwarf_pubtypes.o \
38     dwarf_query.o \
39     dwarf_ranges.o \
40     dwarf_sort_line.o \
41     dwarf_string.o \
42     dwarf_stubs.o \
43     dwarf_types.o \
44     dwarf_util.o \
45     dwarf_vars.o \
46     dwarf_weaks.o \
47     malloc_check.o \
48     pro_alloc.o \
49     pro_arange.o \
50     pro_die.o \
51     pro_encode_nm.o \
52     pro_error.o \
53     pro_expr.o \
54     pro_finish.o \
55     pro_forms.o \
56     pro_frame.o \
57     pro_funcs.o \
58     pro_init.o \
\
```

```
1
```

```
new/usr/src/tools/ctf/dwarf/Makefile.com
```

```
59     pro_line.o \
60     pro_macinfo.o \
61     pro_pubnames.o \
62     pro_reloc.o \
63     pro_reloc_stream.o \
64     pro_reloc_symbolic.o \
65     pro_section.o \
66     pro_types.o \
67     pro_vars.o \
68     pro_weaks.o \
\

70 include $(SRC)/lib/Makefile.lib
71 include $(SRC)/tools/Makefile.tools

73 FILEMODE = 0755
74 SRCDIR = $(SRC)/lib/libdwarf/common/
75 SRCS = $(PICS:%.o=$(SRCDIR)/%.c)

77 CPPFLAGS += -I$(SRCDIR) -DELF_TARGET_ALL=1
78 CERRWARN += -gcc=-Wno-unused
79 CERRWARN += -gcc=-Wno-implicit-function-declaration

81 # libdwarf not clean
82 SMATCH-off

84 DYNFLAGS += '-R$$ORIGIN/../../lib/$(MACH)'
85 #endif /* ! codereview */
86 LDLIBS = -lelf -lc

88 .KEEP_STATE:
89 .PARALLEL:

91 all: $(DYNLIB)

93 install: all $(ROOTONBLDDLIBMACH)/libdwarf.so.1 $(ROOTONBLDDLIBMACH)/libdwarf.so
95 $(ROOTONBLDDLIBMACH)/%: %
96     $(INS.file)

98 $(ROOTONBLDDLIBMACH)/$(LIBLINKS): $(ROOTONBLDDLIBMACH)/$(LIBLINKS)$(VERS)
99     $(INS.liblink)

101 FRC:

103 # We can't provide CTF information for libdwarf, as the CTF tools themselves
104 # depend upon it, and so aren't built yet.
105 $(DYNLIB) := CTFMERGE_POST= :
106 CTFCONVERT_O= :

108 include $(SRC)/lib/Makefile.targ
```

```
2
```

```
*****
6431 Sun Jul 14 19:12:38 2019
new/usr/src/tools/cw/cw.lonbld
11461 should use a native link-editor during the build
11463 SUNWlnd has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
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21 .\"" Copyright 2010 Sun Microsystems, Inc. All rights reserved.
22 .\"" Use is subject to license terms.
23 .\""
24 .\"" Copyright 2018 Joyent, Inc.
25 .\""
26 .Dd September 4, 2018
27 .Dt CW LONBLD
28 .Os
29 .Sh NAME
30 .Nm cw
31 .Nd invoke one or more compilers with argument translation
32 .Sh SYNOPSIS
33 .Nm cw
34 .Op Fl C
35 .Op Fl -versions
36 .Op Fl -noecho
37 .Fl -primary Ar compiler
38 .Op Fl -shadow Ar compiler ...
39 .Op Fl -linker Ar linker
40 #endif /* ! codereview */
41 .Fl -
42 .Ar compiler args ...
43 .Sh DESCRIPTION
44 .Nm cw
45 is a facility for invoking one or more compilers, providing translation from
46 Sun style arguments as appropriate.
47 This allows the use of arbitrary compilers without the need to alter large
48 numbers of makefiles.
49 A mode called shadow compilation invokes multiple compilers so that warnings
50 and errors may be obtained from all of them.
51 See
52 .Sx SHADOW COMPILATION
53 for details.
54 This version of cw supports compilers with both Sun Studio 12 and GCC-style
55 command lines.
56 .Sh ARGUMENTS
57 Both the
58 .Fl -primary
```

```
59 and
60 .Fl -shadow
61 parameters take a
62 .Em compiler specification .
63 This is a comma-separated list of the form
64 .Ar name,executable,style
65 Where
66 .Ar name
67 is a name for the compiler,
68 .Ar executable
69 is the full path to the compiler executable, and
70 .Ar style
71 is the style of command-line options the compiler expects, either
72 .Em sun
73 or
74 .Em gnu .
75 .Bl -tag -width indent
76 .It Fl -primary Ar compiler
77 Specify the compiler to be used primarily (that which is used for link-editing
78 and pre-processing, and whos objects we deliver).
79 .It Fl -shadow Ar compiler
80 Specify a shadow compiler, which builds sources for the sake of checking code
81 quality and compatibility, but has its output discarded.
82 .It Fl -linker Ar linker
83 Specify a link-editor to use in place of
84 .Pa /usr/bin/ld .
85 .Xr ld 1
86 itself arranges for this to be executed by any subprocesses.
87 #endif /* ! codereview */
88 .It Fl -noecho
89 Do not echo the actual command line of any compilers invoked.
90 .It Fl -versions
91 Request from each configured primary and shadow compiler its version
92 information.
93 .It Fl C
94 The sources being compiled are C++. This is necessary as it affects the
95 translation of compiler arguments.
96 .It Fl -
97 Arguments intended for the compilers themselves must be separated from those
98 of
99 .Nm cw
100 by a
101 .Fl -
102 .It Fl _name=
103 .It Fl _style=
104 Parameters intended for the compiler be guarded with options of the form
105 .Fl _name=
106 and
107 .Fl _style=
108 Where
109 .Em name
110 and
111 .Em style
112 are those passed to
113 .Fl -primary
114 and
115 .Fl -shadow
116 this allows certain flags to be passed only to certain classes of compiler.
117 .Pp
118 For historical reasons, the
119 .Fl _style=
120 option is also translated such that a style of
121 .Em sun
122 may use the flag
123 .Fl _cc=
124 and a style of
```

```

125 .Em gnu
126 may use the flag
127 .Fl _gcc=
128 and when the
129 .Fl C
130 option is given and C++ is in use the style of
131 .Em sun
132 may use the flag
133 .Fl _CC=
134 and the style of
135 .Em gnu
136 may use the flag
137 .Fl _g++=
138 .El
139 .Sh SHADOW COMPILATION
140 If
141 .Fl -shadow
142 compilers are specified
143 .Nm cw
144 will invoke each shadow compiler, with the outputs modified (as well as any
145 translation for compiler style) as follows:
146 .Bl -enum
147 .It
148 If
149 .Nm cw
150 is invoked to link-edit without compilation (the input files are all objects),
151 the shadow compiler is not invoked.
152 .It
153 If the
154 .Fl o Ar filename
155 option was provided, with or without a separating space, it will be replaced with
156 .Fl o Ar tempfile
157 .It
158 If the option
159 .Fl o
160 was not provided,
161 .Fl o Ar tempfile
162 will be added to the end of the argument list used to invoke
163 the shadow compilers.
164 .El
165 When shadow compilation is in effect,
166 .Nm cw
167 writes to standard error each compiler's standard error output following its
168 argument list.
169 Messages from the compilers will not be interleaved.
170 If
171 .Nm cw
172 is used to invoke the preprocessor and no output location is specified,
173 .Nm cw
174 will write to standard output the primary compiler's standard output.
175 .Pp
176 Because the Sun compilers write intermediate objects to fixed
177 filenames in the current directory when instructed to compile and
178 link multiple source files via a single command line, it would be
179 unsafe to invoke more than one compiler in this fashion.
180 Therefore
181 .Nm cw
182 does not accept multiple source files unless the preprocessor is to be
183 invoked.
184 An attempt to invoke
185 .Nm cw
186 in this manner will result in an error.
187 .Sh ARGUMENT TRANSLATION
188 If the compiler to be invoked is a GNU-style C or C++ compiler, a set of
189 default flags is added to the beginning of the argument list, and the
190 remaining arguments are translated to their closest appropriate

```

```

191 semantic equivalents and passed in the same order as their
192 counterparts given to
193 .Nm cw .
194 See the comments at the head of
195 .Pa usr/src/tools/cw/cw.c
196 for a detailed list of translations.
197 .Sh ENVIRONMENT
198 .Bl -tag -width indent
199 .It CW_SHADOW_SERIAL
200 If this variable is set in the environment, invoke the primary compiler, wait
201 for it to complete, then invoke the shadow compilers.
202 Normally the primary and shadow compilers are invoked in parallel.
203 .It CW_NO_EXEC
204 If this variable is set in the environment, write the usual output to
205 standard error but do not actually invoke any compiler.
206 This is useful for debugging the translation engine.
207 .El
208 .Sh EXIT STATUS
209 The following exit status values are returned:
210 .Bl -tag -width indent
211 .It 0
212 The primary compiler, and shadow compilers if invoked, all completed
213 successfully.
214 .It >0
215 A usage error occurred, or one or more compilers returned a nonzero
216 exit status.
217 .El
218 .Sh SEE ALSO
219 .Xr cc 1 ,
220 .Xr CC 1 ,
221 .Xr gcc 1 ,
222 .Xr ld 1
223 .Xr gcc 1
224 .Sh BUGS
225 The translations provided for gcc are not always exact and in some cases
226 reflect local policy rather than actual equivalence.
227 Additional compiler types should be supported.
228 .Pp
229 The translation engine is hacky.

```

new/usr/src/tools/cw/cw.c

```
*****
43762 Sun Jul 14 19:12:39 2019
new/usr/src/tools/cw/cw.c
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****  
_____ unchanged_portion_omitted _____
```

306 typedef struct cw_ictx {
307 struct cw_ictx *i_next;
308 cw_compiler_t *i_compiler;
309 char *i_linker;
310 #endif /* ! codereview */
311 struct aelist *i_ae;
312 uint32_t i_flags;
313 int i_oldargc;
314 char **i_oldargv;
315 pid_t i_pid;
316 char *i_tmppdir;
317 char *i_stderr;
318 } cw_ictx_t;

320 /*
321 * Status values to indicate which Studio compiler and associated
322 * flags are being used.
323 */
324 #define M32 0x01 /* -m32 - only on Studio 12 */
325 #define M64 0x02 /* -m64 - only on Studio 12 */
326 #define SS11 0x100 /* Studio 11 */
327 #define SS12 0x200 /* Studio 12 */

329 #define TRANS_ENTRY 5
330 /*
331 * Translation table definition for the -xarch= flag. The "x_arg"
332 * value is translated into the appropriate gcc flags according
333 * to the values in x_trans[n]. The x_flags indicates what compiler
334 * is being used and what flags have been set via the use of
335 * "x_arg".
336 */
337 typedef struct xarch_table {
338 char *x_arg;
339 int x_flags;
340 char *x_trans[TRANS_ENTRY];
341 } xarch_table_t;

343 /*
344 * The translation table for the -xarch= flag used in the Studio compilers.
345 */
346 static const xarch_table_t xtbl[] = {
347 #if defined(__x86)
348 { "generic", SS11, {NULL} },
349 { "generic64", (SS11|M64), { "-m64", "-mtune=opteron" } },
350 { "amd64", (SS11|M64), { "-m64", "-mtune=opteron" } },
351 { "386", SS11, { "-march=i386" } },
352 { "pentium_pro", SS11, { "-march=pentiumpro" } },
353 { "sse", SS11, { "-msse", "-mfpmath=sse" } },
354 { "sse2", SS11, { "-msse2", "-mfpmath=sse" } },
355 #elif defined(__sparc)
356 { "generic", (SS11|M32), { "-m32", "-mcpu=v8" } },
357 { "generic64", (SS11|M64), { "-m64", "-mcpu=v9" } },
358 { "v8", (SS11|M32), { "-m32", "-mcpu=v8", "-mno-v8plus" } },
359 { "v8plus", (SS11|M32), { "-m32", "-mcpu=v9", "-mv8plus" } },
360 { "v8plusa", (SS11|M32), { "-m32", "-mcpu=ultrasparc", "-mv8plus",
361 "-mvvis" } },

1

new/usr/src/tools/cw/cw.c

```
362     { "v8plusb", (SS11|M32), { "-m32", "-mcpu=ultrasparc3", "-mv8plus",  
363         "-mvvis" } },  
364     { "v9", (SS11|M64), { "-m64", "-mcpu=v9" } },  
365     { "v9a", (SS11|M64), { "-m64", "-mcpu=ultrasparc", "-mvvis" } },  
366     { "v9b", (SS11|M64), { "-m64", "-mcpu=ultrasparc3", "-mvvis" } },  
367     { "sparc", SS12, { "-mcpu=v9", "-mv8plus" } },  
368     { "sparcvi", SS12, { "-mcpu=ultrasparc", "-mvvis" } },  
369     { "sparcvi2", SS12, { "-mcpu=ultrasparc3", "-mvvis" } }  
370 #endif  
371 };  
373 static int xtbl_size = sizeof(xtbl) / sizeof(xarch_table_t);  
375 static const char *xchip_tbl[] = {  
376 #if defined(__x86)  
377     "386",      "-mtune=i386", NULL,  
378     "486",      "-mtune=i486", NULL,  
379     "pentium",  "-mtune=pentium", NULL,  
380     "pentium_pro", "-mtune=pentiumpro", NULL,  
381 #elif defined(__sparc)  
382     "super",    "-mtune=supersparc", NULL,  
383     "ultra",    "-mtune=ultrasparc", NULL,  
384     "ultra3",   "-mtune=ultrasparc3", NULL,  
385 #endif  
386     NULL,       NULL  
387 };  
389 static const char *xcode_tbl[] = {  
390 #if defined(__sparc)  
391     "abs32",    "-fno-pic", "-mcmodel=medlow", NULL,  
392     "abs44",    "-fno-pic", "-mcmodel=medmid", NULL,  
393     "abs64",    "-fno-pic", "-mcmodel=medany", NULL,  
394     "pic13",   "-fpic", NULL,  
395     "pic32",   "-fPIC", NULL,  
396 #endif  
397     NULL,       NULL  
398 };  
400 static const char *xtarget_tbl[] = {  
401 #if defined(__x86)  
402     "pentium_pro", "-march=pentiumpro", NULL,  
403 #endif /* __x86 */  
404     NULL,       NULL  
405 };  
407 static const char *xregs_tbl[] = {  
408 #if defined(__sparc)  
409     "appl",      "-mapp-reg", NULL,  
410     "no%appl",  "-mno-app-reg", NULL,  
411     "float",    "-mfpu", NULL,  
412     "no%float", "-mno-fpu", NULL,  
413 #endif /* __sparc */  
414     NULL,       NULL  
415 };  
417 static void  
418 nomem(void)  
419 {  
420     errx(1, "out of memory");  
421 }  
423 static void  
424 newae(struct aelist *ael, const char *arg)  
425 {  
426     struct ae *ae;
```

2

```

428     if ((ae = calloc(sizeof (*ae), 1)) == NULL)
429         nOMEM();
430     ae->ae_arg = strdup(arg);
431     if (ael->ael_tail == NULL)
432         ael->ael_head = ae;
433     else
434         ael->ael_tail->ae_next = ae;
435     ael->ael_tail = ae;
436     ael->ael_argc++;
437 }

439 static cw_ictx_t *
440 newictx(void)
441 {
442     cw_ictx_t *ctx = calloc(sizeof (cw_ictx_t), 1);
443     if (ctx)
444         if ((ctx->i_ae = calloc(sizeof (struct aelist), 1)) == NULL) {
445             free(ctx);
446             return (NULL);
447         }
448
449     return (ctx);
450 }

452 static void
453 error(const char *arg)
454 {
455     errx(2, "error: mapping failed at or near arg '%s'", arg);
456 }

458 /*
459  * Add the current favourite set of warnings to the gcc invocation.
460  */
461 static void
462 warnings(struct aelist *h)
463 {
464     static int warningsonce;
465
466     if (warningsonce++)
467         return;
468
469     /*
470      * Enable as many warnings as exist, then disable those that we never
471      * ever want.
472      */
473     newae(h, "-Wall");
474     newae(h, "-Wextra");
475 }

477 static void
478 optim_disable(struct aelist *h, int level)
479 {
480     if (level >= 2) {
481         newae(h, "-fno-strict-aliasing");
482         newae(h, "-fno-unit-at-a-time");
483         newae(h, "-fno-optimize-sibling-calls");
484     }
485 }

487 static void
488 Xsmode(struct aelist *h)
489 {
490     static int xsonce;
491
492     if (xsonce++)
493         return;

```

```

495     newae(h, "-traditional");
496     newae(h, "-traditional-cpp");
497 }

499 static void
500 usage()
501 {
502     extern char *__progname;
503     (void) fprintf(stderr,
504         "usage: %s [-C] [--versions] --primary <compiler> "
505         "[--shadow <compiler>]... -- cflags...\n",
506         __progname);
507     (void) fprintf(stderr, "compilers take the form: name,path,style\n"
508         " - name: a unique name usable in flag specifiers\n"
509         " - path: path to the compiler binary\n"
510         " - style: the style of flags expected: either sun or gnu\n");
511     exit(2);
512 }

514 static int
515 xlate_xtb(struct aelist *h, const char *xarg)
516 {
517     int i, j;
518
519     for (i = 0; i < xtbl_size; i++) {
520         if (strcmp(xtbl[i].x_arg, xarg) == 0)
521             break;
522     }
523
524     /*
525      * At the end of the table and so no matching "arg" entry
526      * found and so this must be a bad -xarch= flag.
527      */
528     if (i == xtbl_size)
529         error(xarg);
530
531     for (j = 0; j < TRANS_ENTRY; j++) {
532         if (xtbl[i].x_trans[j] != NULL)
533             newae(h, xtbl[i].x_trans[j]);
534         else
535             break;
536     }
537     return (xtbl[i].x_flags);
538 }

541 static void
542 xlate(struct aelist *h, const char *xarg, const char **table)
543 {
544     while (*table != NULL && strcmp(xarg, *table) != 0) {
545         while (*table != NULL)
546             table++;
547     }
548     if (*table == NULL)
549         error(xarg);
550
551     table++;
552
553     while (*table != NULL) {
554         newae(h, *table);
555         table++;
556     }
557 }
558
559 }

```

```

561 /*
562 * The compiler wants the output file to end in appropriate extension. If
563 * we're generating a name from whole cloth (path == NULL), we assume that
564 * extension to be .o, otherwise we match the extension of the caller.
565 */
566 static char *
567 discard_file_name(cw_ictx_t *ctx, const char *path)
568 {
569     char *ret, *ext;
570     char tmpl[] = "cwXXXXXX";
571
572     if (path == NULL) {
573         ext = ".o";
574     } else {
575         ext = strrchr(path, '.');
576     }
577
578     /*
579      * We need absolute control over where the temporary file goes, since
580      * we rely on it for cleanup so tempnam(3C) and tmpnam(3C) are
581      * inappropriate (they use TMPDIR, preferentially).
582      *
583      * mkstemp(3C) doesn't actually help us, since the temporary file
584      * isn't used by us, only its name.
585      */
586     if (mktemp(tmpl) == NULL)
587         nomem();
588
589     (void) asprintf(&ret, "%s/%s%s", ctx->i_tmpdir, tmpl,
590                     (ext != NULL) ? ext : "");
591
592     if (ret == NULL)
593         nomem();
594
595     return (ret);
596 }
597
598 static boolean_t
599 is_source_file(const char *path)
600 {
601     char *ext = strrchr(path, '.');
602
603     if ((ext == NULL) || (*(ext + 1) == '\0'))
604         return (B_FALSE);
605
606     ext += 1;
607
608     if ((strcasecmp(ext, "c") == 0) ||
609         (strcmp(ext, "cc") == 0) ||
610         (strcmp(ext, "i") == 0) ||
611         (strcasecmp(ext, "s") == 0) ||
612         (strcmp(ext, "cpp") == 0)) {
613         return (B_TRUE);
614     }
615
616     return (B_FALSE);
617 }
618
619 static void
620 do_gcc(cw_ictx_t *ctx)
621 {
622     int c;
623     int nolibc = 0;
624     int in_output = 0, seen_o = 0, c_files = 0;

```

```

626     cw_op_t op = CW_O_LINK;
627     char *model = NULL;
628     char *nameflag;
629     int mflag = 0;
630
631     if (ctx->i_flags & CW_F_PROG) {
632         newae(ctx->i_ae, "--version");
633         return;
634     }
635
636     newae(ctx->i_ae, "-fident");
637     newae(ctx->i_ae, "-finline");
638     newae(ctx->i_ae, "-fno-inline-functions");
639     newae(ctx->i_ae, "-fno-builtin");
640     newae(ctx->i_ae, "-fno-asm");
641     newae(ctx->i_ae, "-fdiagnostics-show-option");
642     newae(ctx->i_ae, "-nodefaultlibs");
643
644 #if defined(__sparc)
645     /*
646      * The SPARC ldd and std instructions require 8-byte alignment of
647      * their address operand.  gcc correctly uses them only when the
648      * ABI requires 8-byte alignment; unfortunately we have a number of
649      * pieces of buggy code that doesn't conform to the ABI.  This
650      * flag makes gcc work more like Studio with -xmemalign=4.
651      */
652     newae(ctx->i_ae, "-mno-integer-ldd-std");
653 #endif
654
655     /*
656      * This is needed because 'u' is defined
657      * under a conditional on '_sun'.  Should
658      * probably just remove the conditional,
659      * or make it be dependent on '_sun'.
660      *
661      * -Dunix is also missing in enhanced ANSI mode
662      */
663     newae(ctx->i_ae, "-D_sun");
664
665     if (asprintf(&nameflag, "-%s=", ctx->i_compiler->c_name) == -1)
666         nomem();
667
668     /*
669      * Walk the argument list, translating as we go ..
670      */
671     while (--ctx->i_oldargc > 0) {
672         char *arg = *++ctx->i_oldargv;
673         size_t arglen = strlen(arg);
674
675         if (*arg == '-') {
676             arglen--;
677         } else {
678             /*
679              * Discard inline files that gcc doesn't grok
680              */
681             if (!in_output && arglen > 3 &&
682                 strcmp(arg + arglen - 3, ".il") == 0)
683                 continue;
684
685             if (!in_output && is_source_file(arg))
686                 c_files++;
687
688             /*
689              * Otherwise, filenames and partial arguments
690              * are passed through for gcc to chew on.  However,
691              * output is always discarded for the secondary

```

```

692             * compiler.
693             */
694             if ((ctx->i_flags & CW_F_SHADOW) && in_output) {
695                 newae(ctx->i_ae, discard_file_name(ctx, arg));
696             } else {
697                 newae(ctx->i_ae, arg);
698             }
699             in_output = 0;
700             continue;
701         }

703         if (ctx->i_flags & CW_F_CXX) {
704             if (strncmp(arg, "-_g++=", 6) == 0) {
705                 newae(ctx->i_ae, strchr(arg, '=') + 1);
706                 continue;
707             }
708             if (strncmp(arg, "-compat=", 8) == 0) {
709                 /* discard -compat=4 and -compat=5 */
710                 continue;
711             }
712             if (strcmp(arg, "-Qoption") == 0) {
713                 /* discard -Qoption and its two arguments */
714                 if (ctx->i_oldargc < 3)
715                     error(arg);
716                 ctx->i_oldargc -= 2;
717                 ctx->i_oldargv += 2;
718                 continue;
719             }
720             if (strcmp(arg, "-xwe") == 0) {
721                 /* turn warnings into errors */
722                 newae(ctx->i_ae, "-Werror");
723                 continue;
724             }
725             if (strcmp(arg, "-norunpath") == 0) {
726                 /* gcc has no corresponding option */
727                 continue;
728             }
729             if (strcmp(arg, "-nolib") == 0) {
730                 /* -nodefaultlibs is on by default */
731                 nolibc = 1;
732                 continue;
733         }
734 #if defined(__sparc)
735         if (strcmp(arg, "-cg92") == 0) {
736             mflag |= xlate_xtb(ctx->i_ae, "v8");
737             xlate(ctx->i_ae, "super", xchip_tbl);
738             continue;
739     }
740 #endif /* __sparc */
741 }

743         switch ((c = arg[1])) {
744             case '_':
745                 if ((strncmp(arg, nameflag, strlen(nameflag)) == 0) ||
746                     (strncmp(arg, "-_gcc=", 6) == 0) ||
747                     (strncmp(arg, "-_gnu=", 6) == 0)) {
748                     newae(ctx->i_ae, strchr(arg, '=') + 1);
749                 }
750                 break;
751             case '#':
752                 if (arglen == 1) {
753                     newae(ctx->i_ae, "-v");
754                     break;
755                 }
756                 error(arg);
757                 break;

```

```

758             case 'f':
759                 if ((strcmp(arg, "-fpic") == 0) ||
760                     (strcmp(arg, "-fPIC") == 0)) {
761                     newae(ctx->i_ae, arg);
762                     break;
763                 }
764                 error(arg);
765                 break;
766             case 'E':
767                 if (arglen == 1) {
768                     newae(ctx->i_ae, "-xc");
769                     newae(ctx->i_ae, arg);
770                     op = CW_O_PREPROCESS;
771                     nolibc = 1;
772                     break;
773                 }
774                 error(arg);
775                 break;
776             case 'c':
777             case 'S':
778                 if (arglen == 1) {
779                     op = CW_O_COMPILE;
780                     nolibc = 1;
781                 }
782                 /* FALLTHROUGH */
783             case 'C':
784             case 'H':
785             case 'P':
786                 if (arglen == 1) {
787                     newae(ctx->i_ae, arg);
788                     break;
789                 }
790                 error(arg);
791                 break;
792             case 'A':
793             case 'g':
794             case 'h':
795             case 'I':
796             case 'i':
797             case 'L':
798             case 'l':
799             case 'R':
800             case 'U':
801             case 'u':
802             case 'w':
803                 newae(ctx->i_ae, arg);
804                 break;
805             case 'o':
806                 seen_o = 1;
807                 if (arglen == 1) {
808                     in_output = 1;
809                     newae(ctx->i_ae, arg);
810                 } else if (ctx->i_flags & CW_F_SHADOW) {
811                     newae(ctx->i_ae, "-o");
812                     newae(ctx->i_ae, discard_file_name(ctx, arg));
813                 } else {
814                     newae(ctx->i_ae, arg);
815                 }
816                 break;
817             case 'D':
818                 newae(ctx->i_ae, arg);
819                 /*
820                  * XXX Clearly a hack ... do we need _KADB too?
821                  */
822                 if (strcmp(arg, "-D_KERNEL") == 0 ||
823                     strcmp(arg, "-D_BOOT") == 0)

```

```

824             newae(ctx->i_ae, "-ffreestanding");
825         break;
826     case 'd':
827         if (arglen == 2) {
828             if (strcmp(arg, "-dy") == 0) {
829                 newae(ctx->i_ae, "-Wl,-dy");
830                 break;
831             }
832             if (strcmp(arg, "-dn") == 0) {
833                 newae(ctx->i_ae, "-Wl,-dn");
834                 break;
835             }
836         }
837         if (strcmp(arg, "-dalign") == 0) {
838             /*
839             * -dalign forces alignment in some cases;
840             * gcc does not need any flag to do this.
841             */
842             break;
843         }
844         error(arg);
845         break;
846     case 'e':
847         if (strcmp(arg,
848             "-erroff=E_EMPTY_TRANSLATION_UNIT") == 0) {
849             /*
850             * Accept but ignore this -- gcc doesn't
851             * seem to complain about empty translation
852             * units
853             */
854             break;
855         }
856         /* XX64 -- ignore all -erroff= options, for now */
857         if (strcmp(arg, "-erroff=", 8) == 0)
858             break;
859         if (strcmp(arg, "-errtags=yes") == 0) {
860             warnings(ctx->i_ae);
861             break;
862         }
863         if (strcmp(arg, "-errwarn=%all") == 0) {
864             newae(ctx->i_ae, "-Werror");
865             break;
866         }
867         error(arg);
868         break;
869     case 'G':
870         newae(ctx->i_ae, "-shared");
871         nolibc = 1;
872         break;
873     case 'k':
874         if (strcmp(arg, "-keeptmp") == 0) {
875             newae(ctx->i_ae, "-save-temp");
876             break;
877         }
878         error(arg);
879         break;
880     case 'm':
881         if (strcmp(arg, "-mt") == 0) {
882             newae(ctx->i_ae, "-D_REENTRANT");
883             break;
884         }
885         if (strcmp(arg, "-m64") == 0) {
886             newae(ctx->i_ae, "-m64");
887 #if defined(__x86)
888             newae(ctx->i_ae, "-mtune=opteron");
889 #endif

```

```

890             mflag |= M64;
891             break;
892         }
893         if (strcmp(arg, "-m32") == 0) {
894             newae(ctx->i_ae, "-m32");
895             mflag |= M32;
896             break;
897         }
898         error(arg);
899         break;
900     case 'B': /* linker options */
901     case 'M':
902     case 'z':
903         {
904             char *opt;
905             size_t len;
906             char *s;
907
908             if (arglen == 1) {
909                 opt = ++ctx->i_oldargv;
910                 if (opt == NULL || *opt == '\0')
911                     error(arg);
912                 ctx->i_oldargc--;
913             } else {
914                 opt = arg + 2;
915             }
916             len = strlen(opt) + 7;
917             if ((s = malloc(len)) == NULL)
918                 nomem();
919             (void) sprintf(s, len, "-Wl,-%c%s", c, opt);
920             newae(ctx->i_ae, s);
921             free(s);
922         }
923         break;
924     case 'O':
925         if (arglen == 1) {
926             newae(ctx->i_ae, "-O");
927             break;
928         }
929         error(arg);
930         break;
931     case 'P':
932         /*
933          * We could do '-E -o filename.i', but that's hard,
934          * and we don't need it for the case that's triggering
935          * this addition.  We'll require the user to specify
936          * -o in the Makefile.  If they don't they'll find out
937          * in a hurry.
938         */
939         newae(ctx->i_ae, "-E");
940         op = CW_O_PREPROCESS;
941         nolibc = 1;
942         break;
943     case 's':
944         if (arglen == 1) {
945             newae(ctx->i_ae, "-Wl,-s");
946             break;
947         }
948         error(arg);
949         break;
950     case 't':
951         if (arglen == 1) {
952             newae(ctx->i_ae, "-Wl,-t");
953             break;
954         }
955         error(arg);

```

```

956         break;
957     case 'V':
958         if (arglen == 1) {
959             ctx->i_flags &= ~CW_F_ECHO;
960             newae(ctx->i_ae, "--version");
961             break;
962         }
963         error(arg);
964         break;
965     case 'v':
966         if (arglen == 1) {
967             warnings(ctx->i_ae);
968             break;
969         }
970         error(arg);
971         break;
972     case 'W':
973         if (strcmp(arg, "-Wp,-xc99", 9) == 0) {
974             /*
975                 * gcc's preprocessor will accept c99
976                 * regardless, so accept and ignore.
977             */
978             break;
979         }
980         if (strcmp(arg, "-Wa,", 4) == 0 ||
981             strcmp(arg, "-Wp,", 4) == 0 ||
982             strcmp(arg, "-Wl,", 4) == 0) {
983             newae(ctx->i_ae, arg);
984             break;
985         }
986         if (strcmp(arg, "-W0,-noglobal") == 0 ||
987             strcmp(arg, "-W0,-xglobalstatic") == 0) {
988             /*
989                 * gcc doesn't prefix local symbols
990                 * in debug mode, so this is not needed.
991             */
992             break;
993         }
994     if (strcmp(arg, "-W0,-Lt") == 0) {
995             /*
996                 * Generate tests at the top of loops.
997                 * There is no direct gcc equivalent, ignore.
998             */
999             break;
1000 }
1001 if (strcmp(arg, "-W0,-xdbggen=no%usedonly") == 0) {
1002     newae(ctx->i_ae,
1003           "-fno-eliminate-unused-debug-symbols");
1004     newae(ctx->i_ae,
1005           "-fno-eliminate-unused-debug-types");
1006     break;
1007 }
1008 if (strcmp(arg, "-W2,-xwrap_int") == 0) {
1009     /*
1010         * Use the legacy behaviour (pre-SS11)
1011         * for integer wrapping.
1012         * gcc does not need this.
1013     */
1014     break;
1015 }
1016 if (strcmp(arg, "-Wd,-xsafe=unboundsym") == 0) {
1017     /*
1018         * Prevents optimizing away checks for
1019         * unbound weak symbol addresses. gcc does
1020         * not do this, so it's not needed.
1021     */

```

```

1022         break;
1023     }
1024     if (strncmp(arg, "-Wc,-xcode=", 11) == 0) {
1025         xlate(ctx->i_ae, arg + 11, xcode_tbl);
1026         break;
1027     }
1028     if (strncmp(arg, "-Wc,-Qiselect", 13) == 0) {
1029         /*
1030             * Prevents insertion of register symbols.
1031             * gcc doesn't do this, so ignore it.
1032         */
1033         break;
1034     }
1035     if (strcmp(arg, "-Wc,-Qassembler-ounrefsym=0") == 0) {
1036         /*
1037             * Prevents optimizing away of static variables.
1038             * gcc does not do this, so it's not needed.
1039         */
1040         break;
1041     }
1042 #if defined(__x86)
1043     if (strcmp(arg, "-Wu,-save_args") == 0) {
1044         newae(ctx->i_ae, "-msave-args");
1045         break;
1046     }
1047 #endif /* __x86 */
1048     error(arg);
1049     break;
1050 }
1051 case 'X':
1052     if (strcmp(arg, "-Xa") == 0 ||
1053         strcmp(arg, "-Xt") == 0) {
1054         break;
1055     }
1056     if (strcmp(arg, "-Xs") == 0) {
1057         Xsmode(ctx->i_ae);
1058         break;
1059     }
1060     error(arg);
1061     break;
1062 case 'x':
1063     if (arglen == 1)
1064         error(arg);
1065     switch (arg[2]) {
1066         case 'a':
1067             if (strcmp(arg, "-xarch=", 7) == 0) {
1068                 mflag |= xlate_xtb(ctx->i_ae, arg + 7);
1069                 break;
1070             }
1071             error(arg);
1072             break;
1073         case 'b':
1074             if (strcmp(arg, "-xbuiltin=", 10) == 0) {
1075                 if (strcmp(arg + 10, "%all"))
1076                     newae(ctx->i_ae, "-fbuiltin");
1077                 break;
1078             }
1079             error(arg);
1080             break;
1081         case 'C':
1082             /*
1083                 * Accept C++ style comments -- ignore */
1084             if (strcmp(arg, "-xCC") == 0)
1085                 break;
1086             error(arg);
1087             break;
1088     }
1089 }
1090 case 'c':
1091     if (strcmp(arg, "-xc99=%all", 10) == 0) {

```

```

1088             newae(ctx->i_ae, "-std=gnu99");
1089             break;
1109         }
1110         if (strncmp(arg, "-xc99=%none", 11) == 0) {
1111             newae(ctx->i_ae, "-std=gnu89");
1112             break;
1113         }
1114         if (strncmp(arg, "-xchip=", 7) == 0) {
1115             xlate(ctx->i_ae, arg + 7, xchip_tbl);
1116             break;
1117         }
1118         if (strncmp(arg, "-xcode=", 7) == 0) {
1119             xlate(ctx->i_ae, arg + 7, xcode_tbl);
1120             break;
1121         }
1122         if (strncmp(arg, "-xcrossfile", 11) == 0)
1123             break;
1124         error(arg);
1125         break;
1126     case 'F':
1127         /*
1128          * Compile for mapfile reordering, or unused
1129          * section elimination, syntax can be -xF or
1130          * more complex, like -xF=%all -- ignore.
1131         */
1132         if (strncmp(arg, "-xF", 3) == 0)
1133             break;
1134         error(arg);
1135         break;
1136     case 'i':
1137         if (strncmp(arg, "-xinline", 8) == 0)
1138             /* No inlining; ignore */
1139             break;
1140         if (strcmp(arg, "-xildon") == 0 ||
1141             strcmp(arg, "-xildoff") == 0)
1142             /* No incremental linking; ignore */
1143             break;
1144         error(arg);
1145         break;
1146     case 'm':
1147         if (strcmp(arg, "-xmodel=kernel") == 0) {
1148             newae(ctx->i_ae, "-ffreestanding");
1149             newae(ctx->i_ae, "-mno-red-zone");
1150             model = "-mcmodel=kernel";
1151             nolibc = 1;
1152             break;
1153         }
1154         error(arg);
1155         break;
1156     case 'O':
1157         if (strncmp(arg, "-xO", 3) == 0) {
1158             size_t len = strlen(arg);
1159             char *s = NULL;
1160             int c = *(arg + 3);
1161             int level;
1162
1163             if (len != 4 || !isdigit(c))
1164                 error(arg);
1165
1166             level = atoi(arg + 3);
1167             if (level > 5)
1168                 error(arg);
1169             if (level >= 2) {
1170                 /*
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315             break;
316         }
317         if (strncmp(arg, "I,", 2) == 0) {
318             char *s = strdup(arg);
319             s[0] = '-';
320             s[1] = 'I';
321             newae(ctx->i_ae, "-nostdinc");
322             newae(ctx->i_ae, s);
323             free(s);
324             break;
325         }
326         error(arg);
327         break;
328     case 'Q':
329         /*
330          * We could map -Qy into -Wl,-Qy etc.
331          */
332     default:
333         error(arg);
334         break;
335     }
336     free(nameflag);
337
338     /*
339      * When compiling multiple source files in a single invocation some
340      * compilers output objects into the current directory with
341      * predictable and conventional names.
342      *
343      * We prevent any attempt to compile multiple files at once so that
344      * any such objects created by a shadow can't escape into a later
345      * link-edit.
346      */
347     if (c_files > 1 && op != CW_O_PREPROCESS) {
348         errx(2, "multiple source files are "
349               "allowed only with -E or -P");
350     }
351
352     /*
353      * Make sure that we do not have any unintended interactions between
354      * the xarch options passed in and the version of the Studio compiler
355      * used.
356      */
357     if ((mflag & (SS11|SS12)) == (SS11|SS12)) {
358         errx(2,
359               "Conflicting \"-xarch=\" flags (both Studio 11 and 12)\n");
360     }
361     switch (mflag) {
362     case 0:
363         /* FALLTHROUGH */
364     case M32:
365 #if defined(__sparc)
366         /*
367          * Only -m32 is defined and so put in the missing xarch
368          * translation.
369          */
370         newae(ctx->i_ae, "-mcpu=v8");
371         newae(ctx->i_ae, "-mno-v8plus");
372 #endif
373         break;
374     case M64:
375 #if defined(__sparc)
376         /*
377          * Only -m64 is defined and so put in the missing xarch

```

```

1278             * translation.
1279             */
1280             newae(ctx->i_ae, "-mcpu=v9");
1281 #endif
1282             break;
1283         case SS12:
1284 #if defined(__sparc)
1285             /* no -m32/-m64 flag used - this is an error for sparc builds */
1286             (void) fprintf(stderr, "No -m32/-m64 flag defined\n");
1287             exit(2);
1288 #endif
1289             break;
1290         case SS11:
1291             /* FALLTHROUGH */
1292         case (SS11|M32):
1293         case (SS11|M64):
1294             break;
1295         case (SS12|M32):
1296 #if defined(__sparc)
1297             /*
1298              * Need to add in further 32 bit options because with SS12
1299              * the xarch=sparcvis option can be applied to 32 or 64
1300              * bit, and so the translatation table (xtbl) cannot handle
1301              * that.
1302              */
1303             newae(ctx->i_ae, "-mv8plus");
1304 #endif
1305             break;
1306         case (SS12|M64):
1307             break;
1308         default:
1309             (void) fprintf(stderr,
1310                           "Incompatible -xarch= and/or -m32/-m64 options used.\n");
1311             exit(2);
1312         }
1313
1314         if (ctx->i_flags & CW_F_SHADOW) {
1315             if (op == CW_O_PREPROCESS)
1316                 exit(0);
1317             else if (op == CW_O_LINK && c_files == 0)
1318                 exit(0);
1319         }
1320
1321         if (model != NULL)
1322             newae(ctx->i_ae, model);
1323         if (!nolibc)
1324             newae(ctx->i_ae, "-lc");
1325         if (!seen_o && (ctx->i_flags & CW_F_SHADOW)) {
1326             newae(ctx->i_ae, "-o");
1327             newae(ctx->i_ae, discard_file_name(ctx, NULL));
1328         }
1329     } unchanged portion omitted
1454 static void
1455 prepctx(cw_ictx_t *ctx)
1456 {
1457     newae(ctx->i_ae, ctx->i_compiler->c_path);
1458
1459     if (ctx->i_flags & CW_F_PROG) {
1460         (void) printf("%s: %s\n", (ctx->i_flags & CW_F_SHADOW) ?
1461                       "shadow" : "primary", ctx->i_compiler->c_path);
1462         (void) fflush(stdout);
1463     }
1464
1465     if (ctx->i_linker != NULL)
```

```

1466         setenv("LD_ALTEXEC", ctx->i_linker, 1);
1468 #endif /* ! codereview */
1469     if (!(ctx->i_flags & CW_F_XLATE))
1470         return;
1472     switch (ctx->i_compiler->c_style) {
1473     case SUN:
1474         do_cc(ctx);
1475         break;
1476     case GNU:
1477         do_gcc(ctx);
1478         break;
1479     case SMATCH:
1480         do_smatch(ctx);
1481         break;
1482     }
1483 }
1485 static int
1486 invoke(cw_ictx_t *ctx)
1487 {
1488     char **newargv;
1489     int ac;
1490     struct ae *a;
1492     if ((newargv = calloc(sizeof (*newargv), ctx->i_ae->ael(argc + 1)) ==
1493          NULL))
1494         nomem();
1496     if (ctx->i_flags & CW_F_ECHO)
1497         (void) fprintf(stderr, "+ ");
1499     for (ac = 0, a = ctx->i_ae->ael_head; a; a = a->ae_next, ac++) {
1500         newargv[ac] = a->ae_arg;
1501         if (ctx->i_flags & CW_F_ECHO)
1502             (void) fprintf(stderr, "%s ", a->ae_arg);
1503         if (a == ctx->i_ae->ael_tail)
1504             break;
1505     }
1507     if (ctx->i_flags & CW_F_ECHO) {
1508         (void) fprintf(stderr, "\n");
1509         (void) fflush(stderr);
1510     }
1512     if (!(ctx->i_flags & CW_F_EXEC))
1513         return (0);
1515     /*
1516      * We must fix up the environment here so that the dependency files are
1517      * not trampled by the shadow compiler. Also take care of GCC
1518      * environment variables that will throw off gcc. This assumes a primary
1519      * gcc.
1520     */
1521     if ((ctx->i_flags & CW_F_SHADOW) &&
1522         (unsetenv("SUNPRO_DEPENDENCIES") != 0 ||
1523          unsetenv("DEPENDENCIES_OUTPUT") != 0 ||
1524          unsetenv("GCC_ROOT") != 0)) {
1525         (void) fprintf(stderr, "error: environment setup failed: %s\n",
1526                     strerror(errno));
1527         return (-1);
1528     }
1530     (void) execv(newargv[0], newargv);
1531     warn("couldn't run %s", newargv[0]);

```

```

1533         return (-1);
1534 }
1536 static int
1537 reap(cw_ictx_t *ctx)
1538 {
1539     int status, ret = 0;
1540     char buf[1024];
1541     struct stat s;
1543     /*
1544      * Only wait for one specific child.
1545     */
1546     if (ctx->i_pid <= 0)
1547         return (-1);
1549     do {
1550         if (waitpid(ctx->i_pid, &status, 0) < 0) {
1551             warn("cannot reap child");
1552             return (-1);
1553         }
1554         if (status != 0) {
1555             if (WIFSIGNALED(status)) {
1556                 ret = -WTERMSIG(status);
1557                 break;
1558             } else if (WIFEXITED(status)) {
1559                 ret = WEXITSTATUS(status);
1560                 break;
1561             }
1562         }
1563     } while (!WIFEXITED(status) && !WIFSIGNALED(status));
1565     if (stat(ctx->i_stderr, &s) < 0) {
1566         warn("stat failed on child cleanup");
1567         return (-1);
1568     }
1569     if (s.st_size != 0) {
1570         FILE *f;
1572         if ((f = fopen(ctx->i_stderr, "r")) != NULL) {
1573             while (fgets(buf, sizeof (buf), f))
1574                 (void) fprintf(stderr, "%s", buf);
1575             (void) fflush(stderr);
1576             (void) fclose(f);
1577         }
1578         (void) unlink(ctx->i_stderr);
1579         free(ctx->i_stderr);
1580     }
1582     /*
1583      * cc returns an error code when given -V; we want that to succeed.
1584     */
1585     if (ctx->i_flags & CW_F_PROG)
1586         return (0);
1588 }
1589 }
1591 static int
1592 exec_ctx(cw_ictx_t *ctx, int block)
1593 {
1594     if ((ctx->i_stderr = tempnam(ctx->i_tmpdir, "cw")) == NULL) {
1595         nomem();
1596         return (-1);
1597     }

```

```

1599     if ((ctx->i_pid = fork()) == 0) {
1600         int fd;
1601
1602         (void) fclose(stderr);
1603         if ((fd = open(ctx->i_stderr, O_WRONLY | O_CREAT | O_EXCL,
1604                         0666)) < 0) {
1605             err(1, "open failed for standard error");
1606         }
1607         if (dup2(fd, 2) < 0) {
1608             err(1, "dup2 failed for standard error");
1609         }
1610         if (fd != 2)
1611             (void) close(fd);
1612         if (fopen("/dev/fd/2", "w", stderr) == NULL) {
1613             err(1, "fopen failed for /dev/fd/2");
1614         }
1615
1616         prepctx(ctx);
1617         exit(invoker(ctx));
1618     }
1619
1620     if (ctx->i_pid < 0) {
1621         err(1, "fork failed");
1622     }
1623
1624     if (block)
1625         return (reap(ctx));
1626
1627     return (0);
1628 }
1629
1630 static void
1631 parse_compiler(const char *spec, cw_compiler_t *compiler)
1632 {
1633     char *tspec, *token;
1634
1635     if ((tspec = strdup(spec)) == NULL)
1636         nomem();
1637
1638     if ((token = strsep(&tspec, ",")) == NULL)
1639         errx(1, "Compiler is missing a name: %s", spec);
1640     compiler->c_name = token;
1641
1642     if ((token = strsep(&tspec, ",")) == NULL)
1643         errx(1, "Compiler is missing a path: %s", spec);
1644     compiler->c_path = token;
1645
1646     if ((token = strsep(&tspec, ",")) == NULL)
1647         errx(1, "Compiler is missing a style: %s", spec);
1648
1649     if ((strcasecmp(token, "gnu") == 0) ||
1650         (strcasecmp(token, "gcc") == 0)) {
1651         compiler->c_style = GNU;
1652     } else if ((strcasecmp(token, "sun") == 0) ||
1653                 (strcasecmp(token, "cc") == 0)) {
1654         compiler->c_style = SUN;
1655     } else if ((strcasecmp(token, "smatch") == 0)) {
1656         compiler->c_style = SMATCH;
1657     } else {
1658         errx(1, "unknown compiler style: %s", token);
1659     }
1660
1661     if (tspec != NULL)
1662         errx(1, "Excess tokens in compiler: %s", spec);
1663 }
```

```

1665 static void
1666 cleanup(cw_ictx_t *ctx)
1667 {
1668     DIR *dirp;
1669     struct dirent *dp;
1670     char buf[MAXPATHLEN];
1671
1672     if ((dirp = opendir(ctx->i_tmpdir)) == NULL) {
1673         if (errno != ENOENT) {
1674             err(1, "couldn't open temp directory: %s",
1675                 ctx->i_tmpdir);
1676         } else {
1677             return;
1678         }
1679     }
1680
1681     errno = 0;
1682     while ((dp = readdir(dirp)) != NULL) {
1683         (void) snprintf(buf, MAXPATHLEN, "%s/%s",
1684                         dp->d_name);
1685
1686         if (strcmp(dp->d_name, ".") == 0 || |
1687             strcmp(dp->d_name, "..") == 0) {
1688             continue;
1689         }
1690
1691         if (unlink(buf) == -1)
1692             err(1, "failed to unlink temp file: %s", dp->d_name);
1693         errno = 0;
1694     }
1695
1696     if (errno != 0) {
1697         err(1, "failed to read temporary directory: %s",
1698             ctx->i_tmpdir);
1699     }
1700
1701     (void) closedir(dirp);
1702     if (rmdir(ctx->i_tmpdir) != 0) {
1703         err(1, "failed to unlink temporary directory: %s",
1704             ctx->i_tmpdir);
1705     }
1706 }
1707
1708 int
1709 main(int argc, char **argv)
1710 {
1711     int ch;
1712     cw_compiler_t primary = { NULL, NULL, 0 };
1713     cw_compiler_t shadows[10];
1714     int nshadow = 0;
1715     int ret = 0;
1716     boolean_t do_serial = B_FALSE;
1717     boolean_t do_exec = B_FALSE;
1718     boolean_t vflg = B_FALSE;
1719     boolean_t CfLg = B_FALSE;
1720     boolean_t CfLg = B_FALSE;
1721     boolean_t nflg = B_FALSE;
1722     char *tmpdir;
1723
1724     cw_ictx_t *main_ctx;
1725
1726     static struct option longopts[] = {
1727         { "compiler", no_argument, NULL, 'c' },
1728         { "linker", required_argument, NULL, 'l' },
1729     #endif /* ! codereview */
1730 }
```

```

1730         { "noecho", no_argument, NULL, 'n' },
1731         { "primary", required_argument, NULL, 'p' },
1732         { "shadow", required_argument, NULL, 's' },
1733         { "versions", no_argument, NULL, 'v' },
1734         { NULL, 0, NULL, 0 },
1735     };
1736
1737
1738     if ((main_ctx = newictx()) == NULL)
1739         nomem();
1740
1741     while ((ch = getopt_long(argc, argv, "C", longopts, NULL)) != -1) {
1742         switch (ch) {
1743             case 'c':
1744                 cflg = B_TRUE;
1745                 break;
1746             case 'C':
1747                 Cflg = B_TRUE;
1748                 break;
1749             case 'l':
1750                 if ((main_ctx->i_linker = strdup(optarg)) == NULL)
1751                     nomem();
1752 #endif /* ! codereview */
1753                 break;
1754             case 'n':
1755                 nflg = B_TRUE;
1756                 break;
1757             case 'p':
1758                 if (primary.c_path != NULL) {
1759                     warnx("Only one primary compiler may "
1760                           "be specified");
1761                     usage();
1762                 }
1763
1764                 parse_compiler(optarg, &primary);
1765                 break;
1766             case 's':
1767                 if (nshadows >= 10)
1768                     errx(1, "May only use 10 shadows at "
1769                           "the moment");
1770                 parse_compiler(optarg, &shadows[nshadows]);
1771                 nshadows++;
1772                 break;
1773             case 'v':
1774                 vflg = B_TRUE;
1775                 break;
1776             default:
1777                 (void) fprintf(stderr, "Did you forget '--'?\n");
1778                 usage();
1779         }
1780
1781     if (primary.c_path == NULL) {
1782         warnx("A primary compiler must be specified");
1783         usage();
1784     }
1785
1786     do_serial = (getenv("CW_SHADOW_SERIAL") == NULL) ? B_FALSE : B_TRUE;
1787     do_exec = (getenv("CW_NO_EXEC") == NULL) ? B_TRUE : B_FALSE;
1788
1789     /* Leave room for argv[0] */
1790     argc -= (optind - 1);
1791     argv += (optind - 1);
1792
1793     main_ctx->i_oldargc = argc;
1794     main_ctx->i_oldargv = argv;

```

```

1796     main_ctx->i_flags = CW_F_XLATE;
1797     if (nflg == 0)
1798         main_ctx->i_flags |= CW_F_ECHO;
1799     if (do_exec)
1800         main_ctx->i_flags |= CW_F_EXEC;
1801     if (Cflg)
1802         main_ctx->i_flags |= CW_F_CXX;
1803     main_ctx->i_compiler = &primary;
1804
1805     if (cflg) {
1806         (void) fputs(primary.c_path, stdout);
1807     }
1808
1809     if (vflg) {
1810         (void) printf("cw version %s\n", CW_VERSION);
1811         (void) fflush(stdout);
1812         main_ctx->i_flags &= ~CW_F_ECHO;
1813         main_ctx->i_flags |= CW_F_PROG | CW_F_EXEC;
1814         do_serial = 1;
1815     }
1816
1817     tmpdir = getenv("TMPDIR");
1818     if (tmpdir == NULL)
1819         tmpdir = "/tmp";
1820
1821     if (asprintf(&main_ctx->i_tmpdir, "%s/cw.XXXXXX", tmpdir) == -1)
1822         nomem();
1823
1824     if ((main_ctx->i_tmpdir = mkdtemp(main_ctx->i_tmpdir)) == NULL)
1825         errx(1, "failed to create temporary directory");
1826
1827     ret |= exec_ctx(main_ctx, do_serial);
1828
1829     for (int i = 0; i < nshadows; i++) {
1830         int r;
1831         cw_ictx_t *shadow_ctx;
1832
1833         if ((shadow_ctx = newictx()) == NULL)
1834             nomem();
1835
1836         (void) memcpy(shadow_ctx, main_ctx, sizeof(cw_ictx_t));
1837
1838         shadow_ctx->i_flags |= CW_F_SHADOW;
1839         shadow_ctx->i_compiler = &shadows[i];
1840
1841         r = exec_ctx(shadow_ctx, do_serial);
1842         if (r == 0) {
1843             shadow_ctx->i_next = main_ctx->i_next;
1844             main_ctx->i_next = shadow_ctx;
1845         }
1846         ret |= r;
1847     }
1848
1849     if (!do_serial) {
1850         cw_ictx_t *next = main_ctx;
1851         while (next != NULL) {
1852             cw_ictx_t *toreap = next;
1853             next = next->i_next;
1854             ret |= reap(toreap);
1855         }
1856     }
1857
1858     cleanup(main_ctx);
1859     return (ret);
1860 }

```

```
new/usr/src/tools/findunref/exception_list.open
```

```
*****
6937 Sun Jul 14 19:12:39 2019
new/usr/src/tools/findunref/exception_list.open
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

```
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17 # information: Portions Copyright [yyyy] [name of copyright owner]
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19 # CDDL HEADER END
20 #

22 # Copyright 2014 Gary Mills
23 #
24 # Copyright (c) 2001, 2010, Oracle and/or its affiliates. All rights reserved.
25 # Copyright 2014 Garrett D'Amore <garrett@damore.org>
26 #
27 #
28 # open-tree exception list
29 #
30 # See README.exception_lists for details
31 #

33 #
34 # Ignore oddly-named text files scattered about -- someday these should be
35 # suffixed with .txt so we don't have to list them.
36 #
37 ./usr/src/cmd/oawk/EXPLAIN
38 ./usr/src/cmd/vi/port/ex.news

40 #
41 # Ignore everything under trees that may be resynched from outside ON.
42 #
43 ./usr/src/cmd/perl
44 ./usr/src/cmd/sqlite
45 ./usr/src/lib/libsqlite
46 ./usr/src/cmd/tcpd
47 ./usr/src/grub
48 ./usr/src/uts/intel/sys/acpi

50 #
51 # Ignore ksh93/ast-related files that are only used to resync our build
52 # configuration with upstream.
53 #
54 ./usr/src/lib/libast/*/.src/lib/libast/FEATURE
55 ./usr/src/lib/libast/*/.src/lib/libast/ast_namval.h
56 ./usr/src/lib/libast/common/comp/conf.*
57 ./usr/src/lib/libast/common/features
58 ./usr/src/lib/libast/common/include/ast_windows.h
```

```
1
```

```
new/usr/src/tools/findunref/exception_list.open
```

```
59 ./usr/src/lib/libast/common/port/lc.tab
60 ./usr/src/lib/libast/common/port/lcgen.c
61 ./usr/src/lib/libcmd/*/.src/lib/libcmd/FEATURE
62 ./usr/src/lib/libcmd/common/features
63 ./usr/src/lib/libdll/*/.src/lib/libdll/FEATURE
64 ./usr/src/lib/libdll/common/features
65 ./usr/src/lib/libpp/*/.pp.*
66 ./usr/src/lib/libpp/common/gentab.sh
67 ./usr/src/lib/libpp/common/ppsym.c
68 ./usr/src/lib/libpp/i386/pdebug.h
69 ./usr/src/lib/libpp/sparc/pdebug.h
70 ./usr/src/lib/libshell/*/.src/cmd/ksh93/FEATURE
71 ./usr/src/lib/libshell/common/data/math.tab
72 ./usr/src/lib/libshell/common/features
73 ./usr/src/lib/libshell/misc/buildksh93.sh
74 ./usr/src/lib/libshell/misc/buildksh93.readme

76 #
77 # Ignore ksh93/ast-related "iffe" (if feature enabled) probe
78 #
79 ./usr/src/lib/libsum/common/features/sum

81 #
82 # Ignore ksh93/ast-related upstream source, currently superseded by
83 # a per-platform version of sum.h, since we use libmd.so.1 for some
84 # ciphers.
85 #
86 ./usr/src/lib/libsum/common/sum.h

88 #
89 # Ignore ksh93/ast-related test programs.
90 #
91 ./usr/src/cmd/ast/msgcc/msgcc.tst
92 ./usr/src/lib/libast/common/port/astmath.c

94 #
95 # Ignore ksh93/ast-related source components that are not currently
96 # used but may be useful later.
97 #
98 ./usr/src/lib/libcmd/common/cksum.c
99 ./usr/src/lib/libcmd/common/md5sum.c
100 ./usr/src/lib/libcmd/common/sum.c
101 ./usr/src/lib/libshell/common/bltins/mkservice.c
102 ./usr/src/lib/libshell/common/data/bash_pre_rc.sh
103 ./usr/src/lib/libshell/common/include/env.h
104 ./usr/src/lib/libshell/common/sh/bash.c
105 ./usr/src/lib/libshell/common/sh/env.c
106 ./usr/src/lib/libshell/common/sh/shcomp.c
107 ./usr/src/lib/libshell/common/sh/suid_exec.c

109 #
110 # Ignore any files built as part of the nightly program itself.
111 #
112 # ISUSED - let checkpaths know that the next entry is good.
113 ./usr/src/*.out
114 # ISUSED - let checkpaths know that the next entry is good.
115 ./usr/src/*.ref

117 #
118 # Ignore internal test directories and test programs.
119 #
120 */tests
121 */test
122 *Test.java
123 *_test.[ch]
124 ./usr/src/cmd/ldap/common/*test.c
```

```
2
```

new/usr/src/tools/findunref/exception_list.open

3

```
125 ./usr/src/cmd/logadm/tester
126 ./usr/src/cmd/print/printmgr/com/sun/admin/pm/client/helpTools/extract
127 ./usr/src/cmd/print/printmgr/com/sun/admin/pm/server/pmttest
128 ./usr/src/cmd/sendmail/libsm/t*.c
129 ./usr/src/cmd/sort/common/convert.c
130 ./usr/src/cmd/sort/common/invite.c
131 ./usr/src/lib/crypt_modules/sha256/test.c
132 ./usr/src/lib/efcode/fcode_test
133 ./usr/src/lib/libkvm/common/test.c
134 ./usr/src/lib/libsaveargs/tests/
135 #
136 # Ignore debugging code.
137 #
138 #
139 ./usr/src/cmd/fs.d/pofs/fsck/inject.c
140 ./usr/src/cmd/sort/common/statistics.c
141 #
142 #
143 # Ignore internal packages, scripts, and tools that are intentionally not
144 # built or used during a nightly.
145 #
146 ./usr/src/cmd/sgs/packages
147 ./usr/src/cmd/rtld.4.x
148 ./usr/src/prototypes
149 ./usr/src/cmd/pools/poold/com/sun/solaris/**/package.html
150 ./usr/src/uts/intel/io/acpica/cmp_ca.sh
151 #
152 # Ignore files that are only used by internal packages.
153 #
154 ./usr/src/sgs/**/*chk.msg
155 #
156 # Ignore files that get used during a EXPORT_SRC or CRYPT_SRC build only.
157 #
158 #
159 ./usr/src/lib/gss_mechs/mech_dh/backend/mapfile-vers
160 ./usr/src/lib/gss_mechs/mech_dh/dh1024/mapfile-vers
161 ./usr/src/lib/gss_mechs/mech_dh/dh192/mapfile-vers
162 ./usr/src/lib/gss_mechs/mech_dh/dh640/mapfile-vers
163 #
164 # Ignore Makefiles which are used by developers but not used by nightly
165 # itself. This is a questionable practice, since they tend to rot.
166 #
167 #
168 ./usr/src/cmd/syslogd/sparcv9/Makefile
169 ./usr/src/uts/sparc/uhci/Makefile
170 ./usr/src/lib/pam_modules/smb/amd64/Makefile
171 ./usr/src/lib/pam_modules/smb/sparcv9/Makefile
172 ./usr/src/cmd/isns/isnsd/xml_def/isnsmgmtSchema.xsd
173 #
174 # Ignore dtrace scripts only used by developers
175 #
176 #
177 ./usr/src/cmd/vscan/vscand/vscan.d
178 #
179 # Ignore sample source code.
180 #
181 #
182 ./usr/src/cmd/sendmail/libmilter/example.c
183 #
184 #
185 # Ignore .xcl files that aren't used because the program is statically linked.
186 #
187 ./usr/src/cmd/cmd-inet/sbin/dhcpagent/dhcpagent.xcl
188 #
189 #
```

new/usr/src/tools/findunref/exception_list.open

4

```
190 # Ignore sendmail files included for completeness' sake, but which won't
191 # be used until certain _FFR (for future release) #define's go live.
192 #
193 ./usr/src/cmd/sendmail/src/statusd_shm.h
194 #
195 #
196 # Ignore files originally supplied by ISC (Internet Software Consortium)
197 # as part of a BIND release.
198 #
199 ./usr/src/lib/libresolv2/common/irs/getaddrinfo.c
200 ./usr/src/lib/libresolv2/common/irs/nis_p.h
201 ./usr/src/lib/libresolv2/common/resolv/res_mkupdate.h
202 ./usr/src/lib/libresolv2/include/err.h
203 #
204 #
205 # Ignore mont_mulf.c. It is used as a starting point for some hand optimized
206 # assembly files. We keep it around for future reference.
207 #
208 ./usr/src/common/bignum/mont_mulf.c
209 #
210 #
211 # Ignore any files that get used during a gcc build only.
212 #
213 ./usr/src/cmd/sgs/rtld/common/mapfile-order-gcc
214 #
215 #
216 # The sharemgr command is built 32-bit only by default, but support
217 # for building 64-bit is latent in the Makefiles.
218 #
219 ./usr/src/cmd/dfs.cmds/sharemgr/amd64/Makefile
220 ./usr/src/cmd/dfs.cmds/sharemgr/sparcv9/Makefile
221 #
222 #
223 # Legitimately unreferenced license/copying files. Please include
224 # explanatory comments when adding items here.
225 #
226 #
227 #
228 # OPENSOLARIS.LICENSE needs to remain in usr/src as long as it is
229 # referenced in the CDDL headers.
230 #
231 ./usr/src/OPENSOLARIS.LICENSE
232 #
233 #
234 # This covers header files that are not delivered.
235 #
236 ./usr/src/uts/common/xen/public/COPYING
237 #
238 #
239 # ld tests which are not currently delivered
240 #
241 ./usr/src/cmd/sgs/test
242 ./usr/src/cmd/mdb/test
```

```
new/usr/src/tools/make/lib/makestate/Makefile.com
```

```
1
```

```
*****
```

```
1021 Sun Jul 14 19:12:40 2019
```

```
new/usr/src/tools/make/lib/makestate/Makefile.com
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWold has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmg should be built with the rest of the build tools
```

```
*****
```

```
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9 # http://www.illumos.org/license/CDDL.
10 #

12 # Copyright 2015, Richard Lowe.

14 include $(SRC)/tools/Makefile.tools

16 LIBRARY = libmakestate.a
17 VERS = .1
18 OBJECTS = ld_file.o lock.o

20 include $(SRC)/lib/Makefile.lib
21 include $(SRC)/tools/Makefile.tools
22 #endif /* ! codereview */
23 include ../../../../Makefile.com

25 LIBS = $(DYNLIB)
26 SRCDIR = $(SRC)/cmd/make/lib/makestate
27 MAPFILES = $(SRCDIR)/mapfile-vers
28 LDLIBS += -lc

30 FILEMODE= 755

32 all: $(LIBS)

34 lint:

36 $(ROOTONBLDLIBMACH)/*: %
37     $(INS.file)

39 $(ROOTONBLDLIBMACH64)/*: %
40     $(INS.file)

42 # We can't create CTF in the tools build because of a bootstrap bug with the new
43 $(DYNLIB) := CTFMERGE_POST= :
44 CTFCONVERT_O= :

46 include $(SRC)/lib/Makefile.targ
```

```
new/usr/src/tools/make/lib/makestate/amd64/Makefile
```

```
1
```

```
*****
657 Sun Jul 14 19:12:40 2019
new/usr/src/tools/make/lib/makestate/amd64/Makefile
11461 should use a native link-editor during the build
11463 SUNWnold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
*****
```

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9 # http://www.illumos.org/license/CDDL.
10 #

12 # Copyright 2015, Richard Lowe.

14 include ../Makefile.com
15 include $(SRC)/lib/Makefile.lib.64

17 # Need to unset the alternate link-editor again, as Makefile.lib and
18 # Makefile.tools don't interact well.

20 #endif /* ! codereview */
21 install: all $(ROOTONBLDLIBMACH64)/libmakestate.so.1
```

```
*****
```

```
884 Sun Jul 14 19:12:40 2019
```

```
new/usr/src/tools/sgs/Makefile
```

```
11461 should use a native link-editor during the build
```

```
11463 SUNWnld has passed its use-by date
```

```
11464 cmd/sgs/tools should contain tools, not common code
```

```
11465 sgsmsg should be built with the rest of the build tools
```

```
*****
```

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10 #

12 # Copyright 2019, Richard Lowe.

14 SUBDIRS =
15     include \
16     ld \
17     libconv \
18     libelf \
19     libld \
20     liblddb \
21     sgsmsg

23 all :=           TARGET= install
24 install :=      TARGET= install
25 clean :=        TARGET= clean
26 clobber :=      TARGET= clobber

28 ld: sgsmsg include libconv libelf libld
29 libconv: sgsmsg include
30 libelf: sgsmsg include
31 libld: sgsmsg libelf libconv liblddb include
32 liblddb: sgsmsg libconv include

34 all install clean clobber: $(SUBDIRS)

36 $(SUBDIRS): FRC
37     @cd $@; pwd; $(MAKE) $(TARGET)

39 FRC:
40 #endif /* ! codereview */
```

```
*****
639 Sun Jul 14 19:12:41 2019
new/usr/src/tools/sgs/Makefile.com
11461 should use a native link-editor during the build
11463 SUNWnold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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10 #

12 # Copyright 2019, Richard Lowe.

14 include $(SRC)/cmd/sgs/Makefile.com

16 NATIVE_CPPFLAGS = -I. -I$(SRCDIR) -I$(SRCDIR)/common -I$(SGSHOME)/include -I$(SG
17           -I../include $(CPPFLAGS.native) -I$(ELFCAP) -DNATIVE_BUILD
18 #endif /* ! codereview */
```

```
new/usr/src/tools/sgs/include/Makefile
```

```
1
```

```
*****
1526 Sun Jul 14 19:12:41 2019
new/usr/src/tools/sgs/include/Makefile
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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12 # Copyright 2019, Richard Lowe.

14 include ../../../../Makefile.master

16 #
17 # To build a proper 'tools' version of the link-editor is not possible, as
18 # we'll always depend on the ELF-related headers from the workspace, not the
19 # system.
20 #
21 # We pull in the minimum amount of headers using an explicit list of "ELF-y"
22 # headers to populate this directory, which we then search while building.
23 #
24 # This may not be enough on all occasions, judgement must be used to decide
25 # between providing extra headers, and wrapping problematic code in conditions
26 # on NATIVE_BUILD for a period of time.
27 #

29 ROOTHDRS=
30     dlfcn.h \
31     gelf.h \
32     libelf.h \
33     proc_service.h \
34     rtd_db.h \
35     link.h

36 SYSHDRS=
37     sys/elf.h \
38     sys/elf_386.h \
39     sys/elf_SPARC.h \
40     sys/elf_notes.h \
41     sys/elf_amd64.h \
42     sys/elftypes.h \
43     sys/auxv.h \
44     sys/auxv_SPARC.h \
45     sys/auxv_386.h \
46     sys/avl.h \
47     sys/link.h \
48     sys/machelf.h \
49     sys/note.h \
50     sys/systeminfo.h

51 sys:
52     $(MKDIR) -p sys

54 %: $(SRC)/head/%
55     $(INS.file)

57 sys/%: sys $(SRC)/uts/common/sys/%
58     $(INS.file)
```

```
new/usr/src/tools/sgs/include/Makefile
```

```
2
```

```
60 all install: $(SYSHDRS) $(ROOTHDRS)
62 clean:
64 clobber: clean
65     $(RM) $(SYSHDRS) $(ROOTHDRS)

69 #endif /* ! codereview */
```

```
*****
1341 Sun Jul 14 19:12:41 2019
new/usr/src/tools/sgs/ld/Makefile
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
*****
```

```
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18 # information: Portions Copyright [yyyy] [name of copyright owner]
19 #
20 # CDDL HEADER END
21 #
22 # Copyright (c) 1996 by Sun Microsystems, Inc.
23 # All rights reserved.

25 include      ./Makefile.com
26 include      ./../Makefile.tools
27 include      $(SGSHOME)/ld/Makefile.com

29 LDLIBS = -L../.libconv -L$(ROOTONBLDMACH) -lld -lelf -lconv
30 CPPFLAGS = $(NATIVE_CPPFLAGS)
31 CFLAGS = $(NATIVE_CFLAGS)
32 MAPFILES = $(SRCDIR)/common/mapfile-intf
33 CW_LINKER =
34 VAR_LD_LLDFLAGS=      '-R$$ORIGIN/../../lib/$(MACH)'
35 VAR_LD_LLDFLAGS64 =   '-R$$ORIGIN/../../lib/$(MACH64)'

37 install: $(ROOTONBLDMACHPROG)

39 .KEEP_STATE:

41 include      $(SGSHOME)/ld/Makefile.targ
42 #endif /* ! codereview */
```

```
*****
1238 Sun Jul 14 19:12:41 2019
new/usr/src/tools/sgs/libconv/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

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20 #

22 #
23 # Copyright 2006 Sun Microsystems, Inc. All rights reserved.
24 # Use is subject to license terms.
25 #
26 #

28 include      ./Makefile.com
29 include      $(SGSHOME)/libconv/Makefile.com

31 CPPFLAGS = $(NATIVE_CPPFLAGS) -I$(SRC)/lib/libc/inc -I$(ELFCAP) \
32     -I$(SRC)/common/sgsrtcid \
33     -I$(SRC)/lib/libdemangle/common
34 CFLAGS = $(NATIVE_CFLAGS)
35 CW_LINKER =

37 .PARALLEL:    $(PICS)
38 .KEEP_STATE:

40 install all:  $(LIBRARY)

42 include      $(SGSHOME)/libconv/Makefile.targ

44 #endif /* ! codereview */
```

```
*****
1487 Sun Jul 14 19:12:42 2019
new/usr/src/tools/sgs/libelf/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
*****
```

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18 #
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20 #

22 #
23 # Copyright (c) 1992, 2010, Oracle and/or its affiliates. All rights reserved.
24 #

26 include      ../../Makefile.com
27 include      ../../../../Makefile.tools
28 include      $(SGSHOME)/libelf/Makefile.com

30 CONVLIBDIR = -L../../libconv
31 CPPFLAGS = $(NATIVE_CPPFLAGS)
32 CFLAGS = $(NATIVE_CFLAGS)
33 SGMSGTARG += $(SGMSG32)
34 CW_LINKER =

36 .KEEP_STATE:

38 install:    all $(ROOTONBLDLIBMACH)/$(DYNLIB) $(ROOTONBLDLIBMACH)/$(LIBLINKS)
40 $(ROOTONBLDLIBMACH)/$(DYNLIB): $(PICS) $(ROOTONBLDLIBMACH)
41           $(BUILD_SO)
42           $(POST_PROCESS_SO)

44 $(ROOTONBLDLIBMACH)/$(LIBLINKS): $(ROOTONBLDLIBMACH)/$(DYNLIB)
45           @$(RM) $(ROOTONBLDLIBMACH)/$(LIBLINKS)
46           $(SYMLINK) $(DYNLIB) $(ROOTONBLDLIBMACH)/$(LIBLINKS)

48 include      $(SGSHOME)/libelf/Makefile.targ
49 #endif /* ! codereview */
```

```
*****
1714 Sun Jul 14 19:12:42 2019
new/usr/src/tools/sgs/libld/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
*****
```

```
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25 #
26 #

28 include      ./Makefile.com
29 include      ../../Makefile.tools
30 include      $(SGSHOME)/libld/Makefile.com

32 .KEEP_STATE:

34 CW_LINKER =

36 CPPFLAGS = $(NATIVE_CPPFLAGS) -DUSE_LIBLD_MALLOC -I$(SRC)/lib/libc/inc \
37           -I$(SRC)/uts/common/krtld -I$(SRC)/uts/sparc \
38           $(VAR_LIBLD_CPPFLAGS)
39 LDLIBS += -L$(ROOTONBLDDLIBMACH) -L../../libconv -lconv -llddbg -lelf -lc

41 DYNFLAGS += $(VERSREF) '-R$$ORIGIN'
42 CFLAGS = $(NATIVE_CFLAGS)

44 all:        $(DYNLIB) $(LIBLINKS)

46 install:    all $(ROOTONBLDDLIBMACH)/$(DYNLIB) $(ROOTONBLDDLIBMACH)/$(LIBLINKS

48 $(ROOTONBLDDLIBMACH)/$(DYNLIB): $(PICS) $(ROOTONBLDDLIBMACH)
49           $(BUILD_SO)
50           $(POST_PROCESS_SO)

52 $(ROOTONBLDDLIBMACH)/$(LIBLINKS): $(ROOTONBLDDLIBMACH)/$(DYNLIB)
53           @$(RM) $(ROOTONBLDDLIBMACH)/$(LIBLINKS)
54           $(SYMLINK) $(DYNLIB) $(ROOTONBLDDLIBMACH)/$(LIBLINKS)

56 include      $(SGSHOME)/libld/Makefile.targ
57 #endif /* ! codereview */
```

```
*****
1558 Sun Jul 14 19:12:42 2019
new/usr/src/tools/sgs/liblddb/Makefile
11461 should use a native link-editor during the build
11463 SUNWold has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmg should be built with the rest of the build tools
*****
```

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25 #

27 include      ./Makefile.com
28 include      ../.././Makefile.tools
29 include      $(SGSHOME)/liblddb/Makefile.com

31 .KEEP_STATE:

33 CPPFLAGS = $(NATIVE_CPPFLAGS) -I$(SRC)/lib/libc/inc
34 CFLAGS = $(NATIVE_CFLAGS)
35 DYNFLAGS += -L..../libconv
36 CW_LINKER=
37 SGMSGTARG += $(SGMSG32)

39 all:        $(DYNLIB) $(LIBLINKS)

41 install:    all $(ROOTONBLLIBMACH)/$(DYNLIB) $(ROOTONBLLIBMACH)/$(LIBLINKS)

43 $(ROOTONBLLIBMACH)/$(DYNLIB): $(PICS) $(ROOTONBLLIBMACH)
44           $(BUILD_SO)
45           $(POST_PROCESS_SO)

47 $(ROOTONBLLIBMACH)/$(LIBLINKS): $(ROOTONBLLIBMACH)/$(DYNLIB)
48           @$(RM) $(ROOTONBLLIBMACH)/$(LIBLINKS)
49           $(SYMLINK) $(DYNLIB) $(ROOTONBLLIBMACH)/$(LIBLINKS)

51 include      $(SGSHOME)/liblddb/Makefile.targ
52 #endif /* ! codereview */
```

```
new/usr/src/tools/sgs/sgsmsg/Makefile
```

```
*****
1914 Sun Jul 14 19:12:42 2019
new/usr/src/tools/sgs/sgsmsg/Makefile
11461 should use a native link-editor during the build
11463 SUNWnld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
```

```
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27 #

29 #
30 # Makefile to support tools used for linker development:
31 #
32 # o   sgsmsg creates message headers/arrays/catalogs (a native tool).
33 #
34 # Note, these tools are not part of the product.
35 #

37 include      ../../Makefile.com
38 include      ../../Makefile.tools
39 include      $(SRC)/cmd/Makefile.cmd

42 PROG=    sgsmsg

44 MAN1ONBLDFILES = sgsmsg.1onbld
45 $(ROOTONBLDMAN1ONBLDFILES) := FILEMODE= 644

47 OBJS=  avl.o sgsmsg.o string_table.o findprime.o assfail.o

49 FILEMODE=      0755

51 CPPFLAGS = $(NATIVE_CPPFLAGS)
52 CFLAGS = $(NATIVE_CFLAGS)
53 CW_LINKER =

55 # not linted
56 SMATCH=off

58 all: $(PROG)
```

```
1
```

```
new/usr/src/tools/sgs/sgsmsg/Makefile
```

```
60 install: $(ROOTONBLDMACHPROG) $(ROOTONBLDMAN1ONBLDFILES)
61 $(PROG): $(OBJS)
62         $(LINK.c) $(OBJS) -o $@ $(LDLIBS)
63 %.o:   $(SGSCOMMON)/%.c
64         $(NATIVECC) $(DEBUG) $(NATIVE_CFLAGS) $(CPPFLAGS) -c $<
65 avl.o:  $(SRC)/common/avl/avl.c
66         $(NATIVECC) $(DEBUG) $(NATIVE_CFLAGS) $(CPPFLAGS) -c \
67             $(SRC)/common/avl/avl.c
68 clean:
69         $(RM) $(OBJS)
70
71 include $(SRC)/cmd/Makefile.targ
72 #endif /* ! codereview */
```

```
2
```

```
*****
11277 Sun Jul 14 19:12:43 2019
new/usr/src/tools/sgs/sgsmsg/sgsmsg.lonbld
11461 should use a native link-editor during the build
11463 SUNWorld has passed its use-by date
11464 cmd/sgs/tools should contain tools, not common code
11465 sgsmsg should be built with the rest of the build tools
*****
1 .\" ident      "%Z%%M% %I%      %E% SMI"
1 .\" Copyright 2005 Sun Microsystems, Inc. All rights reserved.
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4 .\" CDDL HEADER START
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19 .\" fields enclosed by brackets "[]" replaced with your own identifying
20 .\" information: Portions Copyright [yyyy] [name of copyright owner]
21 .\" 
22 .\" CDDL HEADER END
23 .\" 
24 .if n .tr \--
25 .TH sgsmsg 1ONBLD "Jun 2, 1999"
26 .TH sgsmsg 11 "2 Jun 1999"
26 .SH NAME
27 sgsmsg - generate message strings for SGS subsystem.
28 .SH SYNOPSIS
29 .B sgsmsg
30 [
31 .B \-cl
32 ]
33 .BI \-d\0 "data"
34 [
35 .BI \-h\0 "defs"
36 ]
37 .BI \-i\0 "ident"
38 ]
39 .if n .ti +5n
40 [
41 .BI \-m\0 "messages"
42 ]
43 .BI \-n\0 "name"
44 ]
45 .I file \.\.\.
46 .SH AVAILABILITY
47 SUNWorld
48 .SH DESCRIPTION
49 \f3sgsmsg\f1 generates several message files from an input string definition
50 \f2file\f1. \f3sgsmsg\f1 provides a flexible, centralized, mechanism
51 of collecting character strings within a code group such as an executable or
52 shared object. All character strings are captured into a single data array
53 within the \f2data\f1 file.
54 The data array is similar to that produced by
55 .BR xstr(1),
56 and helps reduce the relocation overhead incurred by string pointers.
```

```
57 .LP
58 Indexes into the data array are generated as
59 definitions within the \f2defs\f1 file. The code group can reference each
60 character string via predefined macros.
61 .LP
62 The character strings may also be translated into an internationalized
63 format and captured in the
64 \f2messages\f1 file. By default these message strings are suitable for
65 .BR gettext (3I)
66 manipulation. The \f3-\c\f1 option provides for these message strings to be
67 translated into a form suitable for
68 .BR catgets (3C)
69 manipulation.
70 .SH OPERANDS
72 .LP
71 One of more input \f2file\f1s contains a definition for each character
72 string used by a particular code group. The interpretation of a
73 definition is determined by the first character of each line within
74 the input \f2file\f1:
75 .LP
76 .PD 0
77 .RS +4
78 .IP \(\bu 3
79 Entries that begin with a \f3#\f1, \f3$\f1 or a newline are treated as
80 comments and are copied (as is) to the \f2messages\f1 file.
81 .IP \(\bu 3
82 Entries that begin with a \f3@\f1 are translated and will be written to
83 one or more of the output files. Two translations are possible dependent upon
84 whether one or more tokens follow the \f3@\f1 character.
85 .RE
86 .PD
87 .sp
88 .LP
89 An \f4@\f1 character followed by a single token is interpreted as one of
90 two reserved message output
91 \f2indicators\f1, or a message \f2identifier\f1. The reserved output
92 indicator \f4_START_\f1 enables output to the \f2messages\f1 file (note that
93 the occurrence of any \f4@\f1 token will also enable message output).
94 The reserved output indicator \f4_END_\f1 disables output to the
95 \f2messages\f1 file. These two indicators provides a means of isolating
96 only those character strings that require translation into the \f2messages\f1
97 file.
98 .LP
99 Besides the reserved output indicators, an \f4@\f1 character followed by a
100 single token is taken to be a
101 message \f2identifier\f1. This identifier will be translated into a
102 \f2domain\f1 name for
103 .BR gettext (3I)
104 output, or a \f2setid\f1 for
105 .BR catgets (3C)
106 output. This translated value is determine by substituting the message
107 \f2identifier\f1 token
108 for the associated definition from in the \f2ident\f1 file. Note that
109 a message \f2identifier\f1 is required for
110 .BR catgets (3C)
111 use but is optional for
112 .BR gettext (3I).
113 .LP
114 An \f4@\f1 character followed by multiple tokens is taken to be a
115 string \f2definition\f1 followed by a quoted character string. Character
116 strings can be continued over multiple lines by ending the preceding
117 line with a backslash - all initial whitespace on the continuation line will
118 be ignored. Character strings can contain the escape sequences
119 .B \en
120 for newline,
121 .B \et
```

```

122 for tab,
123 .B \ev
124 for vertical tab,
125 .B \eb
126 for backspace,
127 .B \er
128 for carriage return,
129 .B \ef
130 for formfeed,
131 .B \e\ee
132 for backslash, and
133 \e"
134 for double quote.
135 .LP
136 The character string is copied to the \f2data\f1 array
137 and an index into this array is generated as the \f2definition\f1 within
138 the string
139 \f2defs\f1 file. The character string is also translated to the appropriate
140 message format and written to the \f2messages\f1 file.
141 .SH OPTIONS
142 .TP 12
143 .B \-c
144 By default, strings generated in the \f2messages\f1 file are suitable for
145 .BR msgfmt (1)
146 processing, which provides for message extraction via
147 .BR gettext (3I).
148 This option causes the formatting of the message strings to be suitable for
149 .BR gencat (1)
150 processing, which provides for message extraction via
151 .BR catgets (3C).
152 .TP
153 .BI \-d\0 data
154 Specify a \f2data\f1 file is to be created.
155 This file contains a single data array, by default named (\f2__name\f1[]),
156 containing all the strings
157 defined in the string definition \f2file\f1.
158 .TP
159 .BI \-h\0 defs
160 Specify a \f2defs\f1 file is to be created.
161 This file contains definitions for each character string contained in
162 the data array within the \f2data\f1 file. These definitions represent
163 offsets in the data array for each string. Reference to individual strings
164 should use one of the two defined macros \f4MSG_INTL\f1 (which specifies
165 a user defined message extraction function), or \f4MSG_ORIG\f1
166 (which specifies a direct access to the \f2__name\f1[] array).
167 .TP
168 .BI \-i\0 ident
169 Specify an \f2ident\f1 file from which to interpret a message identifier
170 token.
171 .TP
172 .B \-l
173 Indicate that the \f2data\f1 array be defined local (\f2static\f1). This
174 is useful for establishing individual string arrays on a per-object basis.
175 .TP
176 .BI \-m\0 messages
177 Specify a \f2messages\f1 file is to be created. This
178 contain message strings suitable for delivery to a localization group.
179 .TP
180 .BI \-n\0 name
181 Specify an alternative interface \f2name\f1. This name is used to label
182 the message data array (\f2__name\f1[]) and the user defined message
183 extraction function (const char * \f2_name\f1(int)) which will interface
184 with this array.
185 .SH EXAMPLES
186 The following examples provide a simplified guide to using the \f3sgsmsg\fP
187 command, including sample input files and generated output files.

```

```

188 .LP
189 The following \f2ident\f1 file provides message \f2identifiers\f1 for
190 the link-editor utilities
191 .BR ld (1),
192 .BR libld.so.2 ,
193 and
194 .BR liblddbg.so.3 .
195 These identifiers are referenced from the input string definition files
196 of the respective code groups:
197 .if n .ta 1.8i 2.2i
198 .if t .ta 1.6i 2.2i
199 .RS
200 .nf
201 .ft 3

203 % cat sgs.ident
204 .ft 1
205 .if t .sp 0.35
206 .if n .sp
207 # mesgid      setid   domain
208 .if t .sp 0.35
209 .if n .sp
210 MSG_ID_LD      1      SUNW_OST_SGS
211 MSG_ID_LIBLD   2      SUNW_OST_SGS
212 MSG_ID_LIBLDDBG 3      SUNW_OST_SGS

214 .fi
215 .RE
216 .if t .bp
217 .LP
218 The following string definition \f2file\f1 defines a small number of
219 strings used by
220 .BR libld.so.2 :
221 .ta 2.2i
222 .RS
223 .nf
224 .ft 3

226 % cat libld.msg
227 .ft 1
228 .if t .sp 0.35
229 .if n .sp
230 # ident "%Z%%M% %I%    %E% SMI"
231 .if t .sp 0.35
232 .if n .sp
233 @_START_
234 .if t .sp 0.35
235 .if n .sp
236 @ MSG_ID_LIBLD

238 # System call messages
239 .if t .sp 0.35
240 .if n .sp
241 @ MSG_SYS_OPEN  "file %s: cannot open file: %s"
242 @ MSG_SYS_MMAP  "file %s: cannot mmap file: %s"

244 # Symbol processing errors
245 .if t .sp 0.35
246 .if n .sp
247 @ MSG_SYM_DIFFTYPE      "symbol '%s' has differing types:"
248 @ MSG_SYM_DIFFATTR     "symbol '%s' has differing %s:\n\\
249          \\(t(file %s value=0x%#x; file %s value=0x%#x);"
250 .if t .sp 0.35

```

```
251 .if n .sp
252 @ _END_
254 # The following strings represent reserved names. Reference to
255 # these strings is via the MSG_ORIG() macro, and thus no
256 # translations are required.
257 .if t .sp 0.35
258 .if n .sp
259 @ MSG_STR_EMPTY ""
260 @ MSG_PTH_DEVZERO      "/dev/zero"
261 @ MSG_SUNW_OST_SGS    "SUNW_OST_SGS"
263 .fi
264 .RE
265 .LP
266 Using the above input files, the following string and message data files can be
267 generated:
268 .if t .ta 0.5i 2.2i
269 .if n .ta 0.5i 0.8i 3.0i
270 .RS
271 .nf
272 .ft 3
274 % sgsmsg\ \ \-i sgs.ident\ \ \-m\ messages\ \ \-d\ msg.c\ \ \-h\ msg.h \
275 \ \ \ \ \ \-n\ libld_msg\ \ libld.msg
276 % cat msg.c
277 .ft 1
278 .if t .sp 0.35
279 .if n .sp
280 const char __libld_msg[] = { 0x00,
281     0x66, 0x69, 0x6c, 0x65, 0x20, 0x25, 0x73, 0x3a, \.\.\.\.\.
282     0x61, 0x6e, 0x6e, 0x6f, 0x74, 0x20, 0x6f, 0x70, \.\.\.\.\.
283     \.\.\.\.\.
284     0x00
285 };
 unchanged_portion_omitted_
415 .RE
416 #endif /* ! codereview */
417 .sp
418 .SH "EXIT STATUS"
419 A non-zero error return indicates a processing error.
420 .RE
420 .PD
421 .SH "SEE ALSO"
422 .BR gencat (1),
423 .BR ld (1),
424 .BR msgfmt (1),
425 .BR catgets (3C),
426 .BR gettext (3C).
427 .BR gettext (3I).
428 .br
429 .TZ LLM
427 .if n .tr \-\-
```