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*****
13404 Thu May 9 16:28:05 2019
new/usr/src/uts/intel/Makefile.rules
10925 remove 32-bit krtld
Reviewed by: Andy Stormont <astormont@racktopsystems.com>
*****
1 #
2 # CDDL HEADER START
3 #
4 # The contents of this file are subject to the terms of the
5 # Common Development and Distribution License (the "License").
6 # You may not use this file except in compliance with the License.
7 #
8 # You can obtain a copy of the license at usr/src/OPENSOLARIS.LICENSE
9 # or http://www.opensolaris.org/os/licensing.
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12 #
13 # When distributing Covered Code, include this CDDL HEADER in each
14 # file and include the License file at usr/src/OPENSOLARIS.LICENSE.
15 # If applicable, add the following below this CDDL HEADER, with the
16 # fields enclosed by brackets "[]" replaced with your own identifying
17 # information: Portions Copyright [yyyy] [name of copyright owner]
18 #
19 # CDDL HEADER END
20 #
21 #
22 # Copyright 2009 Sun Microsystems, Inc. All rights reserved.
23 # Use is subject to license terms.
24 # Copyright 2019 Joyent, Inc.
25 # Copyright 2019 Joyent, Inc. All rights reserved.
26 # Copyright 2017 Nexenta Systems, Inc.
27 #
28 #
29 # This Makefile defines all file modules and build rules for the
30 # directory uts/intel and its children. These are the source files which
31 # are specific to the intel processor.
32 #
33 # The following two-level ordering must be maintained in this file.
34 # Lines are sorted first in order of decreasing specificity based on
35 # the first directory component. That is, sun4u rules come before
36 # sparc rules come before common rules.
37 #
38 # Lines whose initial directory components are equal are sorted
39 # alphabetically by the remaining components.
40 #
41 #
42 # Need a way to distinguish between the ia32 and amd64 subdirs.
43 #
44 SUBARCH_DIR_32 = ia32
45 SUBARCH_DIR_64 = amd64
46 SUBARCH_DIR = $(SUBARCH_DIR_$(CLASS))
47 #
48 #
49 # Section 1a: C object build rules
50 #
51 $(OBJS_DIR)/%.o: $(SRC)/common/fs/%.c
52 $(COMPILE.c) -o $@ $<
53 $(CTFCONVERT_O)
54 #
55 $(OBJS_DIR)/%.o: $(UTSBASE)/common/io/power/%.c
56 $(COMPILE.c) -o $@ $<
57 $(CTFCONVERT_O)
58 #
59 $(OBJS_DIR)/%.o: $(SRC)/common/util/i386/%.s

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60 $(COMPILE.s) -o $@ $<
61 #
62 $(OBJS_DIR)/%.o: $(UTSBASE)/intel/brand/snl/%.s
63 $(COMPILE.s) -o $@ $<
64 #
65 $(OBJS_DIR)/%.o: $(UTSBASE)/intel/brand/solaris10/%.s
66 $(COMPILE.s) -o $@ $<
67 #
68 $(OBJS_DIR)/%.o: $(UTSBASE)/intel/dtrace/%.c
69 $(COMPILE.c) -o $@ $<
70 $(CTFCONVERT_O)
71 #
72 $(OBJS_DIR)/%.o: $(UTSBASE)/intel/dtrace/%.s
73 $(COMPILE.s) -o $@ $<
74 #
75 $(OBJS_DIR)/%.o: $(UTSBASE)/intel/fs/proc/%.c
76 $(COMPILE.c) -o $@ $<
77 $(CTFCONVERT_O)
78 #
79 $(OBJS_DIR)/%.o: $(UTSBASE)/intel/ia32/ml/%.s
80 $(COMPILE.s) -o $@ $<
81 #
82 $(OBJS_DIR)/%.o: $(UTSBASE)/intel/ia32/os/%.c
83 $(COMPILE.c) -o $@ $<
84 $(CTFCONVERT_O)
85 #
86 $(OBJS_DIR)/%.o: $(UTSBASE)/intel/ia32/promif/%.c
87 $(COMPILE.c) -o $@ $<
88 $(CTFCONVERT_O)
89 #
90 $(OBJS_DIR)/%.o: $(UTSBASE)/intel/ia32/syscall/%.c
91 $(COMPILE.c) -o $@ $<
92 $(CTFCONVERT_O)
93 #
94 $(OBJS_DIR)/%.o: $(UTSBASE)/intel/io/%.c
95 $(COMPILE.c) -o $@ $<
96 $(CTFCONVERT_O)
97 #
98 $(OBJS_DIR)/%.o: $(UTSBASE)/intel/io/acpica/%.c
99 $(COMPILE.c) -o $@ $<
100 $(CTFCONVERT_O)
101 #
102 $(OBJS_DIR)/%.o: $(UTSBASE)/intel/io/acpica/%.s
103 $(COMPILE.s) -o $@ $<
104 #
105 $(OBJS_DIR)/%.o: $(SRC)/common/acpica/events/%.c
106 $(COMPILE.c) -o $@ $<
107 $(CTFCONVERT_O)
108 #
109 $(OBJS_DIR)/%.o: $(SRC)/common/acpica/hardware/%.c
110 $(COMPILE.c) -o $@ $<
111 $(CTFCONVERT_O)
112 #
113 $(OBJS_DIR)/%.o: $(SRC)/common/acpica/dispatcher/%.c
114 $(COMPILE.c) -o $@ $<
115 $(CTFCONVERT_O)
116 #
117 $(OBJS_DIR)/%.o: $(SRC)/common/acpica/executer/%.c
118 $(COMPILE.c) -o $@ $<
119 $(CTFCONVERT_O)
120 #
121 $(OBJS_DIR)/%.o: $(SRC)/common/acpica/parser/%.c
122 $(COMPILE.c) -o $@ $<
123 $(CTFCONVERT_O)
124 #
125 $(OBJS_DIR)/%.o: $(SRC)/common/acpica/namespace/%.c

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126     $(COMPILE.c) -o $$@ $<
127     $(CTFCONVERT_O)

129 $(OBJS_DIR)/%.o:                $(SRC)/common/acpica/resources/%.c
130     $(COMPILE.c) -o $$@ $<
131     $(CTFCONVERT_O)

133 $(OBJS_DIR)/%.o:                $(SRC)/common/acpica/tables/%.c
134     $(COMPILE.c) -o $$@ $<
135     $(CTFCONVERT_O)

137 $(OBJS_DIR)/%.o:                $(SRC)/common/acpica/utilities/%.c
138     $(COMPILE.c) -o $$@ $<
139     $(CTFCONVERT_O)

141 $(OBJS_DIR)/%.o:                $(SRC)/common/acpica/disassembler/%.c
142     $(COMPILE.c) -o $$@ $<
143     $(CTFCONVERT_O)

145 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/agpgart/%.c
146     $(COMPILE.c) -o $$@ $<
147     $(CTFCONVERT_O)

149 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/agpmaster/%.c
150     $(COMPILE.c) -o $$@ $<
151     $(CTFCONVERT_O)

153 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/amd8111s/%.c
154     $(COMPILE.c) -o $$@ $<
155     $(CTFCONVERT_O)

157 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/amr/%.c
158     $(COMPILE.c) -o $$@ $<
159     $(CTFCONVERT_O)

161 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/drm/%.c
162     $(COMPILE.c) -o $$@ $<
163     $(CTFCONVERT_O)

165 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/hotplug/pcicfg/%.c
166     $(COMPILE.c) -o $$@ $<
167     $(CTFCONVERT_O)

169 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/ipmi/%.c
170     $(COMPILE.c) -o $$@ $<
171     $(CTFCONVERT_O)

173 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/intel_nb5000/%.c
174     $(COMPILE.c) -o $$@ $<
175     $(CTFCONVERT_O)

177 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/intel_nhm/%.c
178     $(COMPILE.c) -o $$@ $<
179     $(CTFCONVERT_O)

181 $(OBJS_DIR)/%.o:                $(SRC)/common/mc/mc-amd/%.c
182     $(COMPILE.c) -o $$@ $<
183     $(CTFCONVERT_O)

185 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/mc-amd/%.c
186     $(COMPILE.c) -o $$@ $<
187     $(CTFCONVERT_O)

189 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/pci/%.c
190     $(COMPILE.c) -o $$@ $<
191     $(CTFCONVERT_O)

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193 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/pciex/%.c
194     $(COMPILE.c) -o $$@ $<
195     $(CTFCONVERT_O)

197 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/dktp/controller/ata/%.c
198     $(COMPILE.c) -o $$@ $<
199     $(CTFCONVERT_O)

201 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/dktp/dcdev/%.c
202     $(COMPILE.c) -o $$@ $<
203     $(CTFCONVERT_O)

205 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/dktp/disk/%.c
206     $(COMPILE.c) -o $$@ $<
207     $(CTFCONVERT_O)

209 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/dktp/drvoobj/%.c
210     $(COMPILE.c) -o $$@ $<
211     $(CTFCONVERT_O)

213 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/dktp/hba/ghd/%.c
214     $(COMPILE.c) -o $$@ $<
215     $(CTFCONVERT_O)

217 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/dnet/%.c
218     $(COMPILE.c) -o $$@ $<
219     $(CTFCONVERT_O)

221 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/scsi/adapters/arcmsr/%.c
222     $(COMPILE.c) -o $$@ $<
223     $(CTFCONVERT_O)

225 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/scsi/targets/%.c
226     $(COMPILE.c) -o $$@ $<
227     $(CTFCONVERT_O)

229 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/vgatext/%.c
230     $(COMPILE.c) -o $$@ $<
231     $(CTFCONVERT_O)

233 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/vmxnet3s/%.c
234     $(COMPILE.c) -o $$@ $<
235     $(CTFCONVERT_O)

237 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/io/scsi/adapters/pvscsi/%.c
238     $(COMPILE.c) -o $$@ $<
239     $(CTFCONVERT_O)

241 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/nskern/%.s
242     $(COMPILE.s) -o $$@ $<

244 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/os/%.c
245     $(COMPILE.c) -o $$@ $<
246     $(CTFCONVERT_O)

248 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/pcbe/%.c
249     $(COMPILE.c) -o $$@ $<
250     $(CTFCONVERT_O)

252 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/promif/%.c
253     $(COMPILE.c) -o $$@ $<
254     $(CTFCONVERT_O)

256 $(OBJS_DIR)/%.o:                $(UTSBASE)/intel/syscall/%.c
257     $(COMPILE.c) -o $$@ $<

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258     $(CTFCONVERT_O)

260 $(OBJSDIR)/%.o:                $(UTSBASE)/common/os/%.c
261     $(COMPILE.c) -o $@ $<
262     $(CTFCONVERT_O)

264 $(OBJSDIR)/%.o:                $(UTSBASE)/intel/kdi/%.c
265     $(COMPILE.c) -o $@ $<
266     $(CTFCONVERT_O)

268 $(OBJSDIR)/%.o:                $(UTSBASE)/intel/kdi/%.s
269     $(COMPILE.s) -o $@ $<

271 $(OBJSDIR)/%.o:                $(UTSBASE)/intel/zfs/%.c
272     $(COMPILE.c) -o $@ $<
273     $(CTFCONVERT_O)

275 #
276 # krtld compiled into unix
277 #

279 KRTLD_INC_PATH = -I$(UTSBASE)/common/krtld -I$(UTSBASE)/intel/sys
280 KRTLD_INC_PATH += -I$(UTSBASE)/intel/$(SUBARCH_DIR)/krtld

282 KRTLD_CPPFLAGS = -D_KRTLD -DELFTARGET_AMD64 -DMODDIR_SUFFIX="\amd64\"
282 KRTLD_CPPFLAGS_32 = -DELFTARGET_386
283 KRTLD_CPPFLAGS_64 = -DELFTARGET_AMD64 -DMODDIR_SUFFIX="\amd64\"
284 KRTLD_CPPFLAGS = $(KRTLD_CPPFLAGS_$(CLASS)) -D_KRTLD

284 $(OBJSDIR)/%.o:                $(UTSBASE)/common/krtld/%.c
285     $(COMPILE.c) $(KRTLD_INC_PATH) $(KRTLD_CPPFLAGS) -o $@ $<
286     $(CTFCONVERT_O)

288 $(OBJSDIR)/%.o:                $(UTSBASE)/intel/$(SUBARCH_DIR)/krtld/%.c
289     $(COMPILE.c) $(KRTLD_INC_PATH) $(KRTLD_CPPFLAGS) -o $@ $<
290     $(CTFCONVERT_O)

292 #
293 # _DBOOT indicates that krtld is called from a dboot ELF section
294 #
295 $(OBJSDIR)/kobj.o              := CPPFLAGS += -D_DBOOT

297 $(OBJSDIR)/%.o:                $(UTSBASE)/intel/$(SUBARCH_DIR)/krtld/%.s
298     $(COMPILE.s) $(KRTLD_INC_PATH) $(KRTLD_CPPFLAGS) -o $@ $<

300 $(OBJSDIR)/%.o:                $(SRC)/common/util/$(SUBARCH_DIR)/%.c
301     $(COMPILE.c) $(KRTLD_INC_PATH) $(KRTLD_CPPFLAGS) -o $@ $<
302     $(CTFCONVERT_O)

305 #
306 # Section 1b: Lint 'object' build rules.
307 #
308 $(LINTSDIR)/%.ln:              $(SRC)/common/fs/%.c
309     @$(LHEAD) $(LINT.c) $< $(LTAIL)

311 $(LINTSDIR)/%.ln:              $(SRC)/common/util/i386/%.s
312     @$(LHEAD) $(LINT.s) $< $(LTAIL)

314 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/brand/snl/%.s
315     @$(LHEAD) $(LINT.s) $< $(LTAIL)

317 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/brand/solaris10/%.s
318     @$(LHEAD) $(LINT.s) $< $(LTAIL)

320 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/dtrace/%.c

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321     @$(LHEAD) $(LINT.c) $< $(LTAIL)

323 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/dtrace/%.s
324     @$(LHEAD) $(LINT.s) $< $(LTAIL)

326 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/zfs/%.c
327     @$(LHEAD) $(LINT.c) $< $(LTAIL)

329 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/fs/proc/%.c
330     @$(LHEAD) $(LINT.c) $< $(LTAIL)

332 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/ia32/ml/%.s
333     @$(LHEAD) $(LINT.s) $< $(LTAIL)

335 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/ia32/os/%.c
336     @$(LHEAD) $(LINT.c) $< $(LTAIL)

338 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/ia32/promif/%.c
339     @$(LHEAD) $(LINT.c) $< $(LTAIL)

341 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/ia32/syscall/%.c
342     @$(LHEAD) $(LINT.c) $< $(LTAIL)

344 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/io/%.c
345     @$(LHEAD) $(LINT.c) $< $(LTAIL)

347 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/io/acpica/%.s
348     @$(LHEAD) $(LINT.s) $< $(LTAIL)

350 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/io/acpica/%.c
351     @$(LHEAD) $(LINT.c) $< $(LTAIL)

353 $(LINTSDIR)/%.ln:              $(SRC)/common/acpica/events/%.c
354     @$(LHEAD) $(LINT.c) $< $(LTAIL)

356 $(LINTSDIR)/%.ln:              $(SRC)/common/acpica/hardware/%.c
357     @$(LHEAD) $(LINT.c) $< $(LTAIL)

359 $(LINTSDIR)/%.ln:              $(SRC)/common/acpica/dispatcher/%.c
360     @$(LHEAD) $(LINT.c) $< $(LTAIL)

362 $(LINTSDIR)/%.ln:              $(SRC)/common/acpica/executer/%.c
363     @$(LHEAD) $(LINT.c) $< $(LTAIL)

365 $(LINTSDIR)/%.ln:              $(SRC)/common/acpica/parser/%.c
366     @$(LHEAD) $(LINT.c) $< $(LTAIL)

368 $(LINTSDIR)/%.ln:              $(SRC)/common/acpica/namespace/%.c
369     @$(LHEAD) $(LINT.c) $< $(LTAIL)

371 $(LINTSDIR)/%.ln:              $(SRC)/common/acpica/resources/%.c
372     @$(LHEAD) $(LINT.c) $< $(LTAIL)

374 $(LINTSDIR)/%.ln:              $(SRC)/common/acpica/tables/%.c
375     @$(LHEAD) $(LINT.c) $< $(LTAIL)

377 $(LINTSDIR)/%.ln:              $(SRC)/common/acpica/utilities/%.c
378     @$(LHEAD) $(LINT.c) $< $(LTAIL)

380 $(LINTSDIR)/%.ln:              $(SRC)/common/acpica/disassembler/%.c
381     @$(LHEAD) $(LINT.c) $< $(LTAIL)

383 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/io/agpgart/%.c
384     @$(LHEAD) $(LINT.c) $< $(LTAIL)

386 $(LINTSDIR)/%.ln:              $(UTSBASE)/intel/io/agpmaster/%.c

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387         @$(LHEAD) $(LINT.c) $< $(LTAIL))
389 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/amd811ls/%.c
390     @$(LHEAD) $(LINT.c) $< $(LTAIL))
392 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/amr/%.c
393     @$(LHEAD) $(LINT.c) $< $(LTAIL))
395 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/scsi/adapters/arcmsr/%.c
396     @$(LHEAD) $(LINT.c) $< $(LTAIL))
398 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/drm/%.c
399     @$(LHEAD) $(LINT.c) $< $(LTAIL))
401 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/hotplug/pcicfg/%.c
402     @$(LHEAD) $(LINT.c) $< $(LTAIL))
404 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/hotplug/pci/%.c
405     @$(LHEAD) $(LINT.c) $< $(LTAIL))
407 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/intel_nb5000/%.c
408     @$(LHEAD) $(LINT.c) $< $(LTAIL))
410 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/intel_nhm/%.c
411     @$(LHEAD) $(LINT.c) $< $(LTAIL))
413 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/ipmi/%.c
414     @$(LHEAD) $(LINT.c) $< $(LTAIL))
416 $(LINTS_DIR)/%.ln:          $(SRC)/common/mc/mc-amd/%.c
417     @$(LHEAD) $(LINT.c) $< $(LTAIL))
419 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/mc-amd/%.c
420     @$(LHEAD) $(LINT.c) $< $(LTAIL))
422 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/pci/%.c
423     @$(LHEAD) $(LINT.c) $< $(LTAIL))
425 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/pciex/%.c
426     @$(LHEAD) $(LINT.c) $< $(LTAIL))
428 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/dktp/controller/ata/%.c
429     @$(LHEAD) $(LINT.c) $< $(LTAIL))
431 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/dktp/dcdev/%.c
432     @$(LHEAD) $(LINT.c) $< $(LTAIL))
434 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/dktp/disk/%.c
435     @$(LHEAD) $(LINT.c) $< $(LTAIL))
437 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/dktp/drvojb/%.c
438     @$(LHEAD) $(LINT.c) $< $(LTAIL))
440 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/dktp/hba/ghd/%.c
441     @$(LHEAD) $(LINT.c) $< $(LTAIL))
443 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/dnet/%.c
444     @$(LHEAD) $(LINT.c) $< $(LTAIL))
446 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/scsi/targets/%.c
447     @$(LHEAD) $(LINT.c) $< $(LTAIL))
449 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/vgatext/%.c
450     @$(LHEAD) $(LINT.c) $< $(LTAIL))
452 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/vmxnet3s/%.c

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453         @$(LHEAD) $(LINT.c) $< $(LTAIL))
455 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/io/scsi/adapters/pvscsi/%.c
456     @$(LHEAD) $(LINT.c) $< $(LTAIL))
458 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/os/%.c
459     @$(LHEAD) $(LINT.c) $< $(LTAIL))
461 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/pcbe/%.c
462     @$(LHEAD) $(LINT.c) $< $(LTAIL))
464 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/promif/%.c
465     @$(LHEAD) $(LINT.c) $< $(LTAIL))
467 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/syscall/%.c
468     @$(LHEAD) $(LINT.c) $< $(LTAIL))
470 $(LINTS_DIR)/%.ln:          $(UTSBASE)/common/os/%.c
471     @$(LHEAD) $(LINT.c) $< $(LTAIL))
473 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/kdi/%.c
474     @$(LHEAD) $(LINT.c) $< $(LTAIL))
476 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/kdi/%.s
477     @$(LHEAD) $(LINT.s) $< $(LTAIL))
479 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/nskern/%.s
480     @$(LHEAD) $(LINT.s) $< $(LTAIL))
482 #
483 # krtld lints
484 #
485 $(LINTS_DIR)/%.ln:          $(UTSBASE)/common/krtld/%.c
486     @$(LHEAD) $(LINT.c) $(KRTLDC_PATH) $(KRTLDC_FLAGS) $< $(LTAIL))
488 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/$(SUBARCH_DIR)/krtld/%.c
489     @$(LHEAD) $(LINT.c) $(KRTLDC_PATH) $(KRTLDC_FLAGS) $< $(LTAIL))
491 $(LINTS_DIR)/%.ln:          $(UTSBASE)/intel/$(SUBARCH_DIR)/krtld/%.s
492     @$(LHEAD) $(LINT.s) $(KRTLDC_PATH) $(KRTLDC_FLAGS) $< $(LTAIL))
494 $(LINTS_DIR)/%.ln:          $(SRC)/common/util/$(SUBARCH_DIR)/%.c
495     @$(LHEAD) $(LINT.c) $(KRTLDC_PATH) $(KRTLDC_FLAGS) $< $(LTAIL))
497 $(OBSJ_DIR)/kobj.ln          := CPPFLAGS += -D_DBOOT

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8725 Thu May 9 16:28:05 2019
new/usr/src/uts/intel/ia32/krtld/doreloc.c
10925 remove 32-bit krtld
Reviewed by: Andy Stormont <astormont@racktopsystems.com>
*****
1 /*
2  * CDDL HEADER START
3  *
4  * The contents of this file are subject to the terms of the
5  * Common Development and Distribution License (the "License").
6  * You may not use this file except in compliance with the License.
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 */

22 /*
23 * Copyright (c) 1995, 2010, Oracle and/or its affiliates. All rights reserved.
24 */

26 /*
27  * Copyright 2019 Joyent, Inc.
28 */

30 /*
31  * While this is no longer relevant to the kernel, we keep it in its
32  * traditional location to match the other variants, used from the ld
33  * code.
34 */

26 #if defined(_KERNEL)
27 #include <sys/types.h>
28 #include "reloc.h"
29 #else
36 #define ELF_TARGET_386
37 #if defined(DO_RELOC_LIBLD)
38 #undef DO_RELOC_LIBLD
39 #define DO_RELOC_LIBLD_X86
40 #endif
41 #include <stdio.h>
42 #include "sgs.h"
43 #include "machdep.h"
44 #include "libld.h"
45 #include "reloc.h"
46 #include "conv.h"
47 #include "msg.h"
48 #endif

49 /*
50  * We need to build this code differently when it is used for
51  * cross linking:
52  * - Data alignment requirements can differ from those
53  *   of the running system, so we can't access data
54  *   in units larger than a byte
55  * - We have to include code to do byte swapping when the

```

```

56 * target and linker host use different byte ordering,
57 * but such code is a waste when running natively.
58 */
59 #if !defined(DO_RELOC_LIBLD) || defined(__i386) || defined(__amd64)
60 #define DORELOC_NATIVE
61 #endif

63 /*
64  * This table represents the current relocations that do_reloc() is able to
65  * process. The relocations below that are marked SPECIAL are relocations that
66  * take special processing and shouldn't actually ever be passed to do_reloc().
67  */
68 const Rel_entry reloc_table[R_386_NUM] = {
69 /* R_386_NONE */ {0, FLG_RE_NOTREL, 0, 0, 0},
70 /* R_386_32 */ {0, FLG_RE_NOTREL, 4, 0, 0},
71 /* R_386_PC32 */ {0, FLG_RE_PCREL, 4, 0, 0},
72 /* R_386_GOT32 */ {0, FLG_RE_GOTADD, 4, 0, 0},
73 /* R_386_PLT32 */ {0, FLG_RE_PLTREL | FLG_RE_PCREL, 4, 0, 0},
74 /* R_386_COPY */ {0, FLG_RE_NOTREL, 0, 0, 0}, /* SPECIAL */
75 /* R_386_GLOB_DAT */ {0, FLG_RE_NOTREL, 4, 0, 0},
76 /* R_386_JMP_SLOT */ {0, FLG_RE_NOTREL, 4, 0, 0}, /* SPECIAL */
77 /* R_386_RELATIVE */ {0, FLG_RE_NOTREL, 4, 0, 0},
78 /* R_386_GOTOFF */ {0, FLG_RE_GOTREL, 4, 0, 0},
79 /* R_386_GOTPC */ {0, FLG_RE_PCREL | FLG_RE_GOTPC | FLG_RE_LOCLBND, 4,
80 0, 0},
81 /* R_386_32PLT */ {0, FLG_RE_PLTREL, 4, 0, 0},
82 /* R_386_TLS_GD_PLT */ {0, FLG_RE_PLTREL | FLG_RE_PCREL | FLG_RE_TLSGD, 4,
83 0, 0},
84 /* R_386_TLS_LDM_PLT */ {0, FLG_RE_PLTREL | FLG_RE_PCREL | FLG_RE_TLSLD, 4,
85 0, 0},
86 /* R_386_TLS_TPOFF */ {0, FLG_RE_NOTREL, 4, 0, 0},
87 /* R_386_TLS_IE */ {0, FLG_RE_GOTADD | FLG_RE_TLSIE, 4, 0, 0},
88 /* R_386_TLS_GOTIE */ {0, FLG_RE_GOTADD | FLG_RE_TLSIE, 4, 0, 0},
89 /* R_386_TLS_LE */ {0, FLG_RE_TLSLE, 4, 0, 0},
90 /* R_386_TLS_GD */ {0, FLG_RE_GOTADD | FLG_RE_TLSGD, 4, 0, 0},
91 /* R_386_TLS_LDM */ {0, FLG_RE_GOTADD | FLG_RE_TLSLD, 4, 0, 0},
92 /* R_386_16 */ {0, FLG_RE_NOTREL, 2, 0, 0},
93 /* R_386_PC16 */ {0, FLG_RE_PCREL, 2, 0, 0},
94 /* R_386_8 */ {0, FLG_RE_NOTREL, 1, 0, 0},
95 /* R_386_PC8 */ {0, FLG_RE_PCREL, 1, 0, 0},
96 /* R_386_UNKNOWN24 */ {0, FLG_RE_NOTSUP, 0, 0, 0},
97 /* R_386_UNKNOWN25 */ {0, FLG_RE_NOTSUP, 0, 0, 0},
98 /* R_386_UNKNOWN26 */ {0, FLG_RE_NOTSUP, 0, 0, 0},
99 /* R_386_UNKNOWN27 */ {0, FLG_RE_NOTSUP, 0, 0, 0},
100 /* R_386_UNKNOWN28 */ {0, FLG_RE_NOTSUP, 0, 0, 0},
101 /* R_386_UNKNOWN29 */ {0, FLG_RE_NOTSUP, 0, 0, 0},
102 /* R_386_UNKNOWN30 */ {0, FLG_RE_NOTSUP, 0, 0, 0},
103 /* R_386_UNKNOWN31 */ {0, FLG_RE_NOTSUP, 0, 0, 0},
104 /* R_386_TLS_LDO_32 */ {0, FLG_RE_TLSLD, 4, 0, 0},
105 /* R_386_UNKNOWN33 */ {0, FLG_RE_NOTSUP, 0, 0, 0},
106 /* R_386_UNKNOWN34 */ {0, FLG_RE_NOTSUP, 0, 0, 0},
107 /* R_386_TLS_DTPMOD32 */ {0, FLG_RE_NOTREL, 4, 0, 0},
108 /* R_386_TLS_DTPOFF32 */ {0, FLG_RE_NOTREL, 4, 0, 0},
109 /* R_386_UNKNOWN37 */ {0, FLG_RE_NOTSUP, 0, 0, 0},
110 /* R_386_SIZE32 */ {0, FLG_RE_SIZE | FLG_RE_VERIFY, 4, 0, 0}
111 };

113 /*
114  * Write a single relocated value to its reference location.
115  * We assume we wish to add the relocation amount, value, to the
116  * value of the address already present at the offset.
117  */
118 * NAME VALUE FIELD CALCULATION
119 *
120 * R_386_NONE 0 none none
121 * R_386_32 1 word32 S + A

```

```

122 * R_386_PC32          2      word32      S + A - P
123 * R_386_GOT32       3      word32      G + A - P
124 * R_386_PLT32       4      word32      L + A - P
125 * R_386_COPY        5      none
126 * R_386_GLOB_DAT    6      word32      S
127 * R_386_JMP_SLOT    7      word32      S
128 * R_386_RELATIVE    8      word32      B + A
129 * R_386_GOTOFF      9      word32      S + A - GOT
130 * R_386_GOTPC      10     word32      GOT + A - P
131 * R_386_32PLT      11     word32      L + A
132 * R_386_TLS_GD_PLT  12     word32      @tmsgdplt
133 * R_386_TLS_LDM_PLT 13     word32      @tmsldmplt
134 * R_386_TLS_TPOFF   14     word32      @tntpoff(S)
135 * R_386_TLS_IE      15     word32      @indtntpoff(S)
136 * R_386_TLS_GD      18     word32      @tmsgd(S)
137 * R_386_TLS_LDM     19     word32      @tmsldm(S)
138 * R_386_16          20     word16      S + A
139 * R_386_PC16        21     word16      S + A - P
140 * R_386_8           22     word8       S + A
141 * R_386_PC8         23     word8       S + A - P
142 * R_386_TLS_LDO_32  32     word32      @dtpoff(S)
143 * R_386_TLS_DTPMOD32 35     word32      @dtpmod(S)
144 * R_386_TLS_DTPOFF32 36     word32      @dtpoff(S)
145 * R_386_SIZE32     38     word32      Z + A
146 *
147 * Relocations 0-10 are from Figure 4-4: Relocation Types from the
148 * intel ABI. Relocation 11 (R_386_32PLT) is from the C++ intel abi
149 * and is in the process of being registered with intel ABI (1/13/94).
150 *
151 * Relocations R_386_TLS_* are added to support Thread-Local storage
152 * as recorded in PSARC/2001/509
153 *
154 * Relocation calculations:
155 *
156 * CALCULATION uses the following notation:
157 *   A      the addend used
158 *   B      the base address of the shared object in memory
159 *   G      the offset into the global offset table
160 *   GOT     the address of the global offset table
161 *   L      the procedure linkage entry
162 *   P      the place of the storage unit being relocated
163 *   S      the value of the symbol
164 *   Z      the size of the symbol whose index resides in the relocation
165 *   entry
166 *
167 * @dtlndx(x): Allocate two contiguous entries in the GOT table to hold
168 * a Tls_index structure (for passing to __tls_get_addr()). The
169 * instructions referencing this entry will be bound to the first
170 * of the two GOT entries.
171 *
172 * @tmndx(x): Allocate two contiguous entries in the GOT table to hold
173 * a Tls_index structure (for passing to __tls_get_addr()). The
174 * ti_offset field of the Tls_index will be set to 0 (zero) and the
175 * ti_module will be filled in at run-time. The call to
176 * __tls_get_addr() will return the starting offset of the dynamic
177 * TLS block.
178 *
179 * @dtpoff(x): calculate the tlsoffset relative to the TLS block.
180 *
181 * @tpoff(x): calculate the tlsoffset relative to the TLS block.
182 *
183 * @dtpmod(x): calculate the module id of the object containing symbol x.
184 *
185 * The calculations in the CALCULATION column are assumed to have
186 * been performed before calling this function except for the addition of
187 * the addresses in the instructions.

```

```

188 */
189 #if defined(DO_RELOC_LIBLD)
184 #if defined(_KERNEL)
185 #define lml 0 /* Needed by arglist of REL_ERR_* macros */
186 int
187 do_reloc_krtld(uchar_t rtype, uchar_t *off, Xword *value, const char *sym,
188 const char *file)
189 #elif defined(DO_RELOC_LIBLD)
190 /*ARGSUSED5*/
191 int
192 do_reloc_ld(Rel_desc *rdesc, uchar_t *off, Xword *value,
193 rel_desc_sname_func_t rel_desc_sname_func,
194 const char *file, int bswap, void *lml)
195 #else
196 int
197 do_reloc_rtd(uchar_t rtype, uchar_t *off, Xword *value, const char *sym,
198 const char *file, void *lml)
199 #endif
200 {
201 #ifdef DO_RELOC_LIBLD
202 #define sym (* rel_desc_sname_func)(rdesc)
203 uchar_t rtype = rdesc->rel_rtype;
204 #endif
205 const Rel_entry *rep;
206
207 rep = &reloc_table[rtype];
208
209 switch (rep->re_fsize) {
210 case 1:
211 /* LINTED */
212 *((uchar_t *)off) += (uchar_t)(*value);
213 break;
214
215 case 2:
216 #if defined(DORELOC_NATIVE)
217 /* LINTED */
218 *((Half *)off) += (Half)(*value);
219 #else
220 {
221 Half v;
222 uchar_t *v_bytes = (uchar_t *)&v;
223
224 if (bswap) {
225 UL_ASSIGN_BSWAP_HALF(v_bytes, off);
226 v += *value;
227 UL_ASSIGN_BSWAP_HALF(off, v_bytes);
228 } else {
229 UL_ASSIGN_HALF(v_bytes, off);
230 v += *value;
231 UL_ASSIGN_HALF(off, v_bytes);
232 }
233 }
234 #endif
235 break;
236
237 case 4:
238 #if defined(DORELOC_NATIVE)
239 /* LINTED */
240 *((Xword *)off) += *value;
241 #else
242 {
243 Word v;
244 uchar_t *v_bytes = (uchar_t *)&v;
245
246 if (bswap) {
247 UL_ASSIGN_BSWAP_WORD(v_bytes, off);

```

```
248         v += *value;
249         UL_ASSIGN_BSWAP_WORD(off, v_bytes);
250     } else {
251         UL_ASSIGN_WORD(v_bytes, off);
252         v += *value;
253         UL_ASSIGN_WORD(off, v_bytes);
254     }
255 }
256 #endif
257     break;
258 default:
259     /*
260      * To keep chkmsg() happy: MSG_INTL(MSG_REL_UNSUPSZ)
261      */
262     REL_ERR_UNSUPSZ(lml, file, sym, rtype, rep->re_fsize);
263     return (0);
264 }
265     return (1);

267 #ifdef DO_RELOC_LIBLD
268 #undef sym
269 #endif
270 }
unchanged_portion_omitted
```