

kbuild: Various updates for 2.6.8

Source: <http://linux.derkeiler.com/Mailing-Lists/Kernel/2004-07/6356.html>

From: Sam Ravnborg (sam_at_ravnborg.org)

Date: 07/31/04

Date: Sat, 31 Jul 2004 09:58:38 +0200

To: Linus Torvalds <torvalds@osdl.org>

Hi Linus.

I have arranged with Andrew that he sucks my kbuild tree in -mm, and this is the first update I send direct to you.

The following set of patches has been in -mm for a few days now with no complaints. Please include these before 2.6.8.

bk pull bk://linux-sam.bkbits.net/kbuild

The most important fix is the \$LANG fix. Without this users from .cz, .fr etc. cannot use menuconfig/xconfig with good result.

The cset's:

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- o kbuild: build binary rpm from pre-built tree

Full descriptions below.

Regular diffs available at <http://linux-sam.bkbits.net:8080/kbuild>

Sam

ChangeSet@1.1859, 2004-07-28 00:36:33+02:00, sam@mars.ravnborg.org

kbuild: Introduce source symlink in /lib/modules/.../

Traditionally when building a kernel the source and the

output files are mixed.

When building a kernel using the O= syntax to save output files in a separate directory a way is needed to locate the kernel source.

The implemented solution is a new symlink 'source' being added to /lib/modules/.../

used to locate source for an installed kernel.

The original symlink build points to the directory containing the output files.

Please note that when the kernel is build with source and output files mixed the two symlinks 'build' and 'source' will point to the same directory, thus no changes compared to before.

Two options was considered:

a) Adding a new symlink pointing to the

output files "object"

=> All external modules have to specify O= to build

=> External modules grepping in .config or .h files in include/asm needs to be updated

=> External modules that do grep in source code and ordinary header files just works

b) Let the build symlink point to the output files and introduce a new symlink "source" pointing to the kernel source

=> External module can be build without specifying O=

=> External modules grepping in .config or .h files in include/asm just works

=> External modules that do grep in source code and ordinary header files needs to be updated

Based on the above option b) is considered the least painfull alternative.

So to sum up:

– If a distro does not use separate output dir => no change

– If a distro uses separate output dir =>

– Trivial external module just builds

– Non–trivial (build–wise) external modules are probarly broken

Without this patch

– If a distro does not use separate output dir => no change

– If a distro uses separate output dir =>

– Trivial external modules had to specify O= to build, and the directory being pointed at was not obvious

– grep in .config or include files in asm/ required knowledge where to locate output files

Preferred syntax for building external modules are the following:

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```
make -C /lib/modules/^uname -r^/build M=`pwd`
```

[Substituting 'M=...' with 'SUBDIRS=... modules' give same effect].

When the kernel is built using separate output directory the above invocation of make will invoke the generated Makefile located in the output directory – that again will invoke the Makefile located in the kernel source tree root.

Patch includes contributions from:

Andreas Gruenbacher <agruen@suse.de>

Signed–off–by: Sam Ravnborg <sam@ravnborg.org>

ChangeSet@1.1858, 2004–07–27 23:54:53+02:00, sam@mars.ravnborg.org
kbuild: Create Makefile in output directory if != kernel tree

When building a kernel using the O= syntax to save output files in a separate output directory now create a small Makefile in that same dir.

This Makefile allow one to use make in the output directory without the hassle of going back to the kernel source tree.

The O= option is added by this Makefile stub.

Please note that the Makefile silently overwrite an old one, so changes will be lost if modified.

If there is a need to tweak a Makefile in the output directory it is recommended to use the filename 'makefile', which GNU Make will try first.

Signed–off–by: Sam Ravnborg <sam@ravnborg.org>

ChangeSet@1.1857, 2004–07–27 23:44:01+02:00, sam@mars.ravnborg.org
drivers: move STANDALONE to drivers/base/Kconfig

Move STANDALONE from init/Kconfig to drivers/base/Kconfig .
This way, it's besides PREVENT_FIRMWARE_BUILD.

Signed–off–by: Adrian Bunk <bunk@fs.tum.de>

Signed–off–by: Sam Ravnborg <sam@ravnborg.org>

ChangeSet@1.1856, 2004–07–23 01:29:55+02:00, kkourt@cslab.ece.ntua.gr
kbuild: Two simple kbuild patches

foo1.patch: spelling correction in Makefile

foo2.patch: replace SUBDIRS with M in Documentation/kbuild/modules.txt

From: Kornilios Kourtis <kkourt@cslab.ece.ntua.gr>

Signed–off–by: Sam Ravnborg <sam@ravnborg.org>

ChangeSet@1.1855, 2004–07–23 01:28:19+02:00, sam@mars.ravnborg.org
kbuild: Fix up moving of modpost

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A few small issues to fix the moving of modpost.
A few files was missing in the commit and one change needed.
Also bk ignored the files in their new location.

Signed-off-by: Sam Ravnborg <sam@ravnborg.org>

ChangeSet@1.1854, 2004-07-23 00:59:36+02:00, bgerst@didntduck.org
kbuild: Move modpost files to a new subdir scripts/mod

Move modpost and support files to scripts/mod.
Directory named mod by Sam.

From: Brian Gerst <bgerst@didntduck.org>
Signed-off-by: Sam Ravnborg <sam@ravnborg.org>

ChangeSet@1.1853, 2004-07-23 00:39:37+02:00, schwab@suse.de
kbuild: scripts/genksyms/parse.c_shipped needs to be rebuilt

parse.c_shipped has never been regenerated after parse.y has been modified
4 months ago.

Signed-off-by: Andreas Schwab <schwab@suse.de>
Signed-off-by: Sam Ravnborg <sam@ravnborg.org>

ChangeSet@1.1852, 2004-07-23 00:32:23+02:00, sam@mars.ravnborg.org
kbuild: Less intrusive LANG override, fixes menuconfig

The locale override caused problems for some people with locale settings
different from 'C'. make menuconfig was looking bad / unuseable.
This patch limit the override of locales to the part where we actually descend the kernel
doing the full build of the kernel.
The speed improvement is the same.

make menuconfig should now be useable for all locale settings again.
Thanks to Marcel Sebek <sebek64@post.cz> for pointing out this problem and being
patient in testing.

Signed-off-by: Sam Ravnborg <sam@ravnborg.org>

ChangeSet@1.1851, 2004-07-21 00:14:47+02:00, sam@mars.ravnborg.org
kbuild: Rebuild .spec file when kernel version changes

Make a dependency in scripts/package/Makefile to top-level Makefile forcing
.spec file to be generated when kernel version changes.

Signed-off-by: Sam Ravnborg <sam@ravnborg.org>

ChangeSet@1.1850, 2004-07-21 00:03:20+02:00, gdavis@mvista.com
kbuild: Allow `make O=<obj> {cscope,tags}` to work

Allow `make O=<obj> {cscope,tags}` to work

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ChangeSet@1.1849, 2004-07-20 23:57:07+02:00, edwardsg@sgi.com
kbuild: build binary rpm from pre-built tree

Many times it would be nice to quickly package up a kernel tree you're working on, without having to rebuild the whole thing again from a clean source tree (like the current rpm-pkg target does). The patch below adds an "binrpm-pkg" target which uses your existing (already built) tree.

Modified by me to always do a make and use binrpm-pkg.

Signed-off-by: Greg Edwards <edwardsg@sgi.com>

Signed-off-by: Sam Ravnborg <sam@ravnborg.org>

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