

Kompilacja jądra Linux

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1 stara metoda

make bzImage

```
/usr/src/linux-5.12.12# make bzImage
SYNC    include/config/auto.conf.cmd
CALL    scripts/checksyscalls.sh
```

```
LD      arch/x86/boot/setup.elf
OBJCOPY arch/x86/boot/setup.bin
BUILD   arch/x86/boot/bzImage
Kernel: arch/x86/boot/bzImage is ready (#2)
```

make modules

```
/usr/src/linux-5.12.12# make modules
CALL    scripts/checksyscalls.sh
```

```
LD [M]  sound/core/snd.ko
LD [M]  sound/pci/ac97/snd-ac97-codec.ko
LD [M]  sound/pci/snd-intel8x0.ko
LD [M]  sound/soundcore.ko
```

make modules_install

```
INSTALL arch/x86/crypto/crc32-pclmul.ko
INSTALL drivers/acpi/ac.ko
INSTALL drivers/acpi/button.ko
INSTALL drivers/acpi/video.ko
INSTALL drivers/block/loop.ko
INSTALL drivers/char/agp/agpgart.ko
INSTALL drivers/char/agp/intel-agp.ko
INSTALL drivers/char/agp/intel-gtt.ko
```

```
INSTALL sound/core/snd.ko
INSTALL sound/pci/ac97/snd-ac97-codec.ko
INSTALL sound/pci/snd-intel8x0.ko
INSTALL sound/soundcore.ko
DEPMOD  5.12.1-smp
```

Utworzenie dysku ram

```
# mkinitrd_command_generator.sh revision 1.45
#
# This script will now make a recommendation about the command to use
# in case you require an initrd image to boot a kernel that does not
# have support for your storage or root filesystem built in
# (such as the Slackware 'generic' kernels').
# A suitable 'mkinitrd' command will be:
mkinitrd -c -k 5.12.1-smp -f ext4 -r /dev/sda1 -m ext4 -u -o /boot/initrd.gz
```

Dodanie nowego wpisu do konfiguracji bootloadera lilo


```

bash-4.3# /usr/share/mkinitrd/mkinitrd_command_generator.sh -k 5.1.8-smp
#
# mkinitrd_command_generator.sh revision 1.45
#
# This script will now make a recommendation about the command to use
# in case you require an initrd image to boot a kernel that does not
# have support for your storage or root filesystem built in
# (such as the Slackware 'generic' kernels').
# A suitable 'mkinitrd' command will be:

mkinitrd -c -k 5.1.8-smp -f ext4 -r /dev/sda1 -m ext4 -u -o /boot/initrd.gz
bash-4.3# mkinitrd -c -k 5.1.8-smp -f ext4 -r /dev/sda2 -m ext4 -u -o /boot/init
rd-custom-

32188 bloków
/boot/initrd-custom- created.
Be sure to run lilo again if you use it.
bash-4.3# 5.1.8-smp.gz
bash: 5.1.8-smp.gz: nie znaleziono polecenia
bash-4.3# mkinitrd -c -k 5.1.8-smp -f ext4 -r /dev/sda2 -m ext4 -u -o /boot/init
rd-custom-5.1.8-smp.gz
32188 bloków
/boot/initrd-custom-5.1.8-smp.gz created.
Be sure to run lilo again if you use it.

```

Dodanie nowego wpisu do konfiguracji bootloadera lilo

```

image = /boot/vmlinuz-new-5.12.1-smp
root = /dev/sda1
initrd = /boot/initrd-new-5.12.1-smp.gz
label = "kernel-new"
read-only
# Linux bootable partition config ends

```

```

bash-4.3# lilo
Warning: LBA32 addressing assumed
Added Slackware_14.2 *
Added kernel-custom +
Added kernel-old +
Added kernel-new +
One warning was issued.
bash-4.3#

```

3 Wnioski

Stara metoda jest szybsza nie mam dokładnych wyliczeń ale udało mi się ją zrobić szybciej.

Nowa metoda jest trochę wolniejsza ale prostsza w przygotowaniu.

Kompilowanie jądra nie jest dla mnie jest to bardzo pracochłonna prac jestem lepszym programistą niż administratorem sytemu