Raport procesu kompilacji jądra Linux

Jan Krawczyk

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
root@localhost:~/linux-6.9.1# mv config_newmethod .config
```

Zastąpienie pliku konfiguracyjnego .config nowym plikiem wygenerowanym ze skryptu streamline_config.pl

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
root@localhost:~/linux-6.9.1# mv config_newmethod .config
root@localhost:~/linux-6.9.1# make olddefconfig
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
root@localhost:~/linux-6.9.1# mv config_newmethod .config
root@localhost:~/linux-6.9.1# make olddefconfig
#
# configuration written to .config
#
root@localhost:~/linux-6.9.1#
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
root@localhost:~/linux-6.9.1# mv config_newmethod .config
root@localhost:~/linux-6.9.1# make olddefconfig
#
# configuration written to .config
#
root@localhost:~/linux-6.9.1# make -j2 bzImage
```

Budowanie obrazu jądra

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
  AS      arch/x86/boot/compressed/head_64.o
  CC      arch/x86/boot/video.o
  VOFFSET arch/x86/boot/compressed/../voffset.h
  CC      arch/x86/boot/video-mode.o
  CC      arch/x86/boot/version.o
  CC      arch/x86/boot/video-vga.o
  CC      arch/x86/boot/video-vesa.o
  CC      arch/x86/boot/compressed/cmdline.o
  CC      arch/x86/boot/compressed/error.o
  OBJCOPY arch/x86/boot/compressed/vmlinux.bin
  CC      arch/x86/boot/video-bios.o
  CC      arch/x86/boot/compressed/cpuflags.o
  CC      arch/x86/boot/compressed/early_serial_console.o
  CC      arch/x86/boot/compressed/kaslr.o
  CC      arch/x86/boot/compressed/ident_map_64.o
  CC      arch/x86/boot/compressed/idt_64.o
  AS      arch/x86/boot/compressed/idt_handlers_64.o
  AS      arch/x86/boot/compressed/mem_encrypt.o
  CC      arch/x86/boot/compressed/pgtable_64.o
  CC      arch/x86/boot/compressed/sev.o
  CC      arch/x86/boot/compressed/acpi.o
  CC      arch/x86/boot/compressed/mem.o
  CC      arch/x86/boot/compressed/efi.o
  AS      arch/x86/boot/compressed/efi_mixed.o
  CC      arch/x86/boot/compressed/misc.o
  LZMA    arch/x86/boot/compressed/vmlinux.bin.lzma
  MKPIGGY arch/x86/boot/compressed/piggy.S
  AS      arch/x86/boot/compressed/piggy.o
  LD      arch/x86/boot/compressed/vmlinux
  CPUSTR  arch/x86/boot/cpustr.h
  ZOFFSET arch/x86/boot/zoffset.h
  OBJCOPY arch/x86/boot/vmlinux.bin
  CC      arch/x86/boot/cpu.o
  AS      arch/x86/boot/header.o
  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)
root@localhost:~/linux-6.9.1#
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
  AS      arch/x86/boot/compressed/head_64.o
  CC      arch/x86/boot/video.o
  VOFFSET arch/x86/boot/compressed/../voffset.h
  CC      arch/x86/boot/video-mode.o
  CC      arch/x86/boot/version.o
  CC      arch/x86/boot/video-vga.o
  CC      arch/x86/boot/video-vesa.o
  CC      arch/x86/boot/compressed/cmdline.o
  CC      arch/x86/boot/compressed/error.o
  OBJCOPY arch/x86/boot/compressed/vmlinux.bin
  CC      arch/x86/boot/video-bios.o
  CC      arch/x86/boot/compressed/cpuflags.o
  CC      arch/x86/boot/compressed/early_serial_console.o
  CC      arch/x86/boot/compressed/kaslr.o
  CC      arch/x86/boot/compressed/ident_map_64.o
  CC      arch/x86/boot/compressed/idt_64.o
  AS      arch/x86/boot/compressed/idt_handlers_64.o
  AS      arch/x86/boot/compressed/mem_encrypt.o
  CC      arch/x86/boot/compressed/pgtable_64.o
  CC      arch/x86/boot/compressed/sev.o
  CC      arch/x86/boot/compressed/acpi.o
  CC      arch/x86/boot/compressed/mem.o
  CC      arch/x86/boot/compressed/efi.o
  AS      arch/x86/boot/compressed/efi_mixed.o
  CC      arch/x86/boot/compressed/misc.o
  LZMA    arch/x86/boot/compressed/vmlinux.bin.lzma
  MKPIGGY arch/x86/boot/compressed/piggy.S
  AS      arch/x86/boot/compressed/piggy.o
  LD      arch/x86/boot/compressed/vmlinux
  CPUSTR  arch/x86/boot/cpustr.h
  ZOFFSET arch/x86/boot/zoffset.h
  OBJCOPY arch/x86/boot/vmlinux.bin
  CC      arch/x86/boot/cpu.o
  AS      arch/x86/boot/header.o
  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)
root@localhost:~/linux-6.9.1# make -j2 modules
```

Budowanie modułów jądra

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
  LD [M]  drivers/gpu/drm/drm_kms_helper.ko
  LD [M]  drivers/gpu/drm/ttm/ttm.ko
  LD [M]  drivers/gpu/drm/vmwgfx/vmwgfx.ko
  LD [M]  drivers/gpu/drm/vboxvideo/vboxvideo.ko
  LD [M]  drivers/block/loop.ko
  LD [M]  drivers/net/ethernet/intel/e1000/e1000.ko
  LD [M]  drivers/usb/host/ehci-hcd.ko
  LD [M]  drivers/usb/host/ehci-pci.ko
  LD [M]  drivers/usb/host/ohci-hcd.ko
  LD [M]  drivers/usb/host/ohci-pci.ko
  LD [M]  drivers/input/serio/serio_raw.ko
  LD [M]  drivers/input/mouse/psmouse.ko
  LD [M]  drivers/input/joydev.ko
  LD [M]  drivers/input/evdev.ko
  LD [M]  drivers/i2c/busses/i2c-piix4.ko
  LD [M]  drivers/i2c/i2c-core.ko
  LD [M]  drivers/virt/vboxguest/vboxguest.ko
  LD [M]  drivers/virt/coco/tsm.ko
  LD [M]  drivers/virt/coco/sev-guest/sev-guest.ko
  LD [M]  drivers/powercap/intel_rapl_common.ko
  LD [M]  drivers/powercap/intel_rapl_msr.ko
  LD [M]  sound/soundcore.ko
  LD [M]  sound/core/snd.ko
  LD [M]  sound/core/snd-timer.ko
  LD [M]  sound/core/snd-pcm.ko
  LD [M]  sound/pci/snd-intel8x0.ko
  LD [M]  sound/pci/ac97/snd-ac97-codec.ko
  LD [M]  sound/ac97_bus.ko
  LD [M]  net/802/p8022.ko
  LD [M]  net/802/psnap.ko
  LD [M]  net/802/stp.ko
  LD [M]  net/802/garp.ko
  LD [M]  net/802/mrp.ko
  LD [M]  net/ipv6/ipv6.ko
  LD [M]  net/8021q/8021q.ko
  LD [M]  net/wireless/cfg80211.ko
  LD [M]  net/llc/llc.ko
  LD [M]  net/rfkill/rfkill.ko
root@localhost:~/linux-6.9.1#
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
  LD [M]  drivers/gpu/drm/drm_kms_helper.ko
  LD [M]  drivers/gpu/drm/ttm/ttm.ko
  LD [M]  drivers/gpu/drm/vmwgfx/vmwgfx.ko
  LD [M]  drivers/gpu/drm/vboxvideo/vboxvideo.ko
  LD [M]  drivers/block/loop.ko
  LD [M]  drivers/net/ethernet/intel/e1000/e1000.ko
  LD [M]  drivers/usb/host/ehci-hcd.ko
  LD [M]  drivers/usb/host/ehci-pci.ko
  LD [M]  drivers/usb/host/ohci-hcd.ko
  LD [M]  drivers/usb/host/ohci-pci.ko
  LD [M]  drivers/input/serio/serio_raw.ko
  LD [M]  drivers/input/mouse/psmouse.ko
  LD [M]  drivers/input/joydev.ko
  LD [M]  drivers/input/evdev.ko
  LD [M]  drivers/i2c/busses/i2c-piix4.ko
  LD [M]  drivers/i2c/i2c-core.ko
  LD [M]  drivers/virt/vboxguest/vboxguest.ko
  LD [M]  drivers/virt/coco/tsm.ko
  LD [M]  drivers/virt/coco/sev-guest/sev-guest.ko
  LD [M]  drivers/powercap/intel_rapl_common.ko
  LD [M]  drivers/powercap/intel_rapl_msr.ko
  LD [M]  sound/soundcore.ko
  LD [M]  sound/core/snd.ko
  LD [M]  sound/core/snd-timer.ko
  LD [M]  sound/core/snd-pcm.ko
  LD [M]  sound/pci/snd-intel8x0.ko
  LD [M]  sound/pci/ac97/snd-ac97-codec.ko
  LD [M]  sound/ac97_bus.ko
  LD [M]  net/802/p8022.ko
  LD [M]  net/802/psnap.ko
  LD [M]  net/802/stp.ko
  LD [M]  net/802/garp.ko
  LD [M]  net/802/mrp.ko
  LD [M]  net/ipv6/ipv6.ko
  LD [M]  net/8021q/8021q.ko
  LD [M]  net/wireless/cfg80211.ko
  LD [M]  net/llc/llc.ko
  LD [M]  net/rfkill/rfkill.ko
root@localhost:~/linux-6.9.1# make modules_install
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/ttm/ttm.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/vmwgfx/vmwgfx.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/vboxvideo/vboxvideo.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/block/loop.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/net/ethernet/intel/e1000/e1000.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/serio/serio_raw.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/mouse/psmouse.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/joydev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/evdev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/busses/i2c-piix4.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/i2c-core.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/vboxguest/vboxguest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/coco/tsm.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/coco/sev-guest/sev-guest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_common.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1#
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/ttm/ttm.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/vmwgfx/vmwgfx.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/vboxvideo/vboxvideo.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/block/loop.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/net/ethernet/intel/e1000/e1000.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/serio/serio_raw.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/mouse/psmouse.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/joydev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/evdev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/busses/i2c-piix4.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/i2c-core.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/vboxguest/vboxguest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/coco/tsm.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/coco/sev-guest/sev-guest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_common.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/vmwgfx/vmwgfx.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/vboxvideo/vboxvideo.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/block/loop.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/net/ethernet/intel/e1000/e1000.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/serio/serio_raw.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/mouse/psmouse.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/joydev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/evdev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/busses/i2c-piix4.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/i2c-core.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/vboxguest/vboxguest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/coco/tsm.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/coco/sev-guest/sev-guest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_common.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/vboxvideo/vboxvideo.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/block/loop.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/net/ethernet/intel/e1000/e1000.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/serio/serio_raw.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/mouse/psmouse.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/joydev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/evdev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/busses/i2c-piix4.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/i2c-core.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/vboxguest/vboxguest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/coco/tsm.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/coco/sev-guest/sev-guest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_common.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
```

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/serio/serio_raw.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/mouse/psmouse.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/joydev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/evdev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/busses/i2c-piix4.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/i2c-core.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/vboxguest/vboxguest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/coco/tsm.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/coco/sev-guest/sev-guest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_common.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /b
bin/  boot/
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
```

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/serio/serio_raw.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/mouse/psmouse.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/joydev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/evdev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/busses/i2c-piix4.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/i2c-core.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/vboxguest/vboxguest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/coco/tsm.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/coco/sev-guest/sev-guest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_common.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /b
bin/  boot/
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
root@localhost:/boot# /usr/share/mkinitrd/mkinitrd_command_generator.sh -k 6.9.1
```

Używany do wygenerowania skryptu do stworzenia initrd dla danego jądra

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /b
bin/  boot/
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
root@localhost:/boot# /usr/share/mkinitrd/mkinitrd_command_generator.sh -k 6.9.1
#
# 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 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd.gz
root@localhost:/boot#
```

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /b
bin/  boot/
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
root@localhost:/boot# /usr/share/mkinitrd/mkinitrd_command_generator.sh -k 6.9.1
#
# 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 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd.gz
root@localhost:/boot# mkinitrd -c -k 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd-custom-6.9.1.gz
```

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej

```
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /b
bin/  boot/
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
root@localhost:/boot# /usr/share/mkinitrd/mkinitrd_command_generator.sh -k 6.9.1
#
# 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 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd.gz
root@localhost:/boot# mkinitrd -c -k 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd-custom-6.9.1.gz
51365 bloków
/boot/initrd-custom-6.9.1.gz created.
Be sure to run lilo again if you use it.
root@localhost:/boot#
```

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej

```
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /b
bin/  boot/
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
root@localhost:/boot# /usr/share/mkinitrd/mkinitrd_command_generator.sh -k 6.9.1
#
# 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 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd.gz
root@localhost:/boot# mkinitrd -c -k 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd-custom-6.9.1.gz
51365 bloków
/boot/initrd-custom-6.9.1.gz created.
Be sure to run lilo again if you use it.
root@localhost:/boot# grub-mkconfig -o /boot/grub/grub.cfg
```

Komenda grub-mkconfig -o /boot/grub/grub.cfg jest używana do wygenerowania nowego pliku konfiguracyjnego GRUB-a

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej

```
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /b
bin/  boot/
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
root@localhost:/boot# /usr/share/mkinitrd/mkinitrd_command_generator.sh -k 6.9.1
#
# 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 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd.gz
root@localhost:/boot# mkinitrd -c -k 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd-custom-6.9.1.gz
51365 bloków
/boot/initrd-custom-6.9.1.gz created.
Be sure to run lilo again if you use it.
root@localhost:/boot# grub-mkconfig -o /boot/grub/grub.cfg
Generowanie pliku konfiguracyjnego gruba...
Znaleziono obraz Linuksa: /boot/vmlinuz-huge-5.15.19
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-huge
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-generic-5.15.19
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-generic
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-custom-6.9.1
Znaleziono obraz initrd: /boot/initrd.gz
Uwaga: os-prober nie zostanie uruchomiony w celu wykrycia innych uruchamialnych partycji.
Systemy na nich nie zostaną dodane do konfiguracji rozruchowej GRUB-a.
Proszę sprawdzić dokumentację dotyczącą GRUB_DISABLE_OS_PROBER.
Dodawanie wpisu menu rozruchowego dla ustawień firmware'u UEFI...
gotowe
root@localhost:/boot#
```

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej

```
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /b
bin/  boot/
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
root@localhost:/boot# /usr/share/mkinitrd/mkinitrd_command_generator.sh -k 6.9.1
#
# 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 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd.gz
root@localhost:/boot# mkinitrd -c -k 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd-custom-6.9.1.gz
51365 bloków
/boot/initrd-custom-6.9.1.gz created.
Be sure to run lilo again if you use it.
root@localhost:/boot# grub-mkconfig -o /boot/grub/grub.cfg
Generowanie pliku konfiguracyjnego gruba...
Znaleziono obraz Linuksa: /boot/vmlinuz-huge-5.15.19
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-huge
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-generic-5.15.19
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-generic
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-custom-6.9.1
Znaleziono obraz initrd: /boot/initrd.gz
Uwaga: os-prober nie zostanie uruchomiony w celu wykrycia innych uruchamialnych partycji.
Systemy na nich nie zostaną dodane do konfiguracji rozruchowej GRUB-a.
Proszę sprawdzić dokumentację dotyczącą GRUB_DISABLE_OS_PROBER.
Dodawanie wpisu menu rozruchowego dla ustawień firmware'u UEFI...
gotowe
root@localhost:/boot# reboot
```

Slackware15 (kernel_grub) [Uruchomiona] - Oracle VM VirtualBox

Plik Maszyna Widok Wejście Urządzenia Pomoc

Kosz

Katalog domowy

~ : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
root@localhost:~# uname -r
6.9.1
root@localhost:~#
```

System uruchomił się poprawnie z nowo skompilowanym jądrem

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
root@localhost:~/linux-6.9.1# mv config_oldmethod .config
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
root@localhost:~/linux-6.9.1# mv config_oldmethod .config
root@localhost:~/linux-6.9.1# make olddefconfig
#
# No change to .config
#
root@localhost:~/linux-6.9.1# make localmodconfig
using config: '.config'
#
# configuration written to .config
#
root@localhost:~/linux-6.9.1#
```

Stworzenie pliku konfiguracyjnego wygenerowanego za pomocą metody localmodconfig

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
root@localhost:~/linux-6.9.1# mv config_oldmethod .config
root@localhost:~/linux-6.9.1# make olddefconfig
#
# No change to .config
#
root@localhost:~/linux-6.9.1# make localmodconfig
using config: '.config'
#
# configuration written to .config
#
root@localhost:~/linux-6.9.1# make -j2 bzImage
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
  AR      kernel/built-in.a
  AR      built-in.a
  AR      vmlinux.a
  LD      vmlinux.o
  OBJCOPY modules.builtin.modinfo
  GEN     modules.builtin
  MODPOST vmlinux.symvers
  UPD     include/generated/utsversion.h
  CC      init/version-timestamp.o
  LD      .tmp_vmlinux.kallsyms1
  NM      .tmp_vmlinux.kallsyms1.syms
  KSYMS   .tmp_vmlinux.kallsyms1.S
  AS      .tmp_vmlinux.kallsyms1.S
  LD      .tmp_vmlinux.kallsyms2
  NM      .tmp_vmlinux.kallsyms2.syms
  KSYMS   .tmp_vmlinux.kallsyms2.S
  AS      .tmp_vmlinux.kallsyms2.S
  LD      vmlinux
  NM      System.map
  SORTTAB vmlinux
  RELOCS  arch/x86/boot/compressed/vmlinux.relocs
  RSTRIP  vmlinux
  CC      arch/x86/boot/version.o
  VOFFSET arch/x86/boot/compressed/../voffset.h
  OBJCOPY arch/x86/boot/compressed/vmlinux.bin
  CC      arch/x86/boot/compressed/kaslr.o
  CC      arch/x86/boot/compressed/misc.o
  LZMA    arch/x86/boot/compressed/vmlinux.bin.lzma
  MKPIGGY arch/x86/boot/compressed/piggy.S
  AS      arch/x86/boot/compressed/piggy.o
  LD      arch/x86/boot/compressed/vmlinux
  ZOFFSET arch/x86/boot/zoffset.h
  OBJCOPY arch/x86/boot/vmlinux.bin
  AS      arch/x86/boot/header.o
  LD      arch/x86/boot/setup.elf
  OBJCOPY arch/x86/boot/setup.bin
  BUILD   arch/x86/boot/bzImage
Kernel: arch/x86/boot/bzImage is ready  (#3)
root@localhost:~/linux-6.9.1#
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
  AR      kernel/built-in.a
  AR      built-in.a
  AR      vmlinux.a
  LD      vmlinux.o
  OBJCOPY modules.builtin.modinfo
  GEN     modules.builtin
  MODPOST vmlinux.symvers
  UPD     include/generated/utsversion.h
  CC      init/version-timestamp.o
  LD      .tmp_vmlinux.kallsyms1
  NM      .tmp_vmlinux.kallsyms1.syms
  KSYMS   .tmp_vmlinux.kallsyms1.S
  AS      .tmp_vmlinux.kallsyms1.S
  LD      .tmp_vmlinux.kallsyms2
  NM      .tmp_vmlinux.kallsyms2.syms
  KSYMS   .tmp_vmlinux.kallsyms2.S
  AS      .tmp_vmlinux.kallsyms2.S
  LD      vmlinux
  NM      System.map
  SORTTAB vmlinux
  RELOCS  arch/x86/boot/compressed/vmlinux.relocs
  RSTRIP  vmlinux
  CC      arch/x86/boot/version.o
  VOFFSET arch/x86/boot/compressed/../voffset.h
  OBJCOPY arch/x86/boot/compressed/vmlinux.bin
  CC      arch/x86/boot/compressed/kaslr.o
  CC      arch/x86/boot/compressed/misc.o
  LZMA    arch/x86/boot/compressed/vmlinux.bin.lzma
  MKPIGGY arch/x86/boot/compressed/piggy.S
  AS      arch/x86/boot/compressed/piggy.o
  LD      arch/x86/boot/compressed/vmlinux
  ZOFFSET arch/x86/boot/zoffset.h
  OBJCOPY arch/x86/boot/vmlinux.bin
  AS      arch/x86/boot/header.o
  LD      arch/x86/boot/setup.elf
  OBJCOPY arch/x86/boot/setup.bin
  BUILD   arch/x86/boot/bzImage
Kernel: arch/x86/boot/bzImage is ready  (#3)
root@localhost:~/linux-6.9.1# make -j2 modules
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
  GEN     modules.builtin
  MODPOST vmlinux.symvers
  UPD     include/generated/utsversion.h
  CC      init/version-timestamp.o
  LD      .tmp_vmlinux.kallsyms1
  NM      .tmp_vmlinux.kallsyms1.syms
  KSYMS   .tmp_vmlinux.kallsyms1.S
  AS      .tmp_vmlinux.kallsyms1.S
  LD      .tmp_vmlinux.kallsyms2
  NM      .tmp_vmlinux.kallsyms2.syms
  KSYMS   .tmp_vmlinux.kallsyms2.S
  AS      .tmp_vmlinux.kallsyms2.S
  LD      vmlinux
  NM      System.map
  SORTTAB vmlinux
  RELOCS  arch/x86/boot/compressed/vmlinux.relocs
  RSTRIP  vmlinux
  CC      arch/x86/boot/version.o
  VOFFSET arch/x86/boot/compressed/../voffset.h
  OBJCOPY arch/x86/boot/compressed/vmlinux.bin
  CC      arch/x86/boot/compressed/kaslr.o
  CC      arch/x86/boot/compressed/misc.o
  LZMA    arch/x86/boot/compressed/vmlinux.bin.lzma
  MKPIGGY arch/x86/boot/compressed/piggy.S
  AS      arch/x86/boot/compressed/piggy.o
  LD      arch/x86/boot/compressed/vmlinux
  ZOFFSET arch/x86/boot/zoffset.h
  OBJCOPY arch/x86/boot/vmlinux.bin
  AS      arch/x86/boot/header.o
  LD      arch/x86/boot/setup.elf
  OBJCOPY arch/x86/boot/setup.bin
  BUILD   arch/x86/boot/bzImage
Kernel: arch/x86/boot/bzImage is ready  (#3)
root@localhost:~/linux-6.9.1# make -j2 modules
mkdir -p /root/linux-6.9.1/tools/objtool && make O=/root/linux-6.9.1 subdir=tools/objtool --no-print-directory -C objtool
  INSTALL libsubcmd_headers
  CALL    scripts/checksyscalls.sh
  MODPOST Module.symvers
root@localhost:~/linux-6.9.1#
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
  GEN     modules.builtin
  MODPOST vmlinux.symvers
  UPD     include/generated/utsversion.h
  CC      init/version-timestamp.o
  LD      .tmp_vmlinux.kallsyms1
  NM      .tmp_vmlinux.kallsyms1.syms
  KSYMS   .tmp_vmlinux.kallsyms1.S
  AS      .tmp_vmlinux.kallsyms1.S
  LD      .tmp_vmlinux.kallsyms2
  NM      .tmp_vmlinux.kallsyms2.syms
  KSYMS   .tmp_vmlinux.kallsyms2.S
  AS      .tmp_vmlinux.kallsyms2.S
  LD      vmlinux
  NM      System.map
  SORTTAB vmlinux
  RELOCS  arch/x86/boot/compressed/vmlinux.relocs
  RSTRIP  vmlinux
  CC      arch/x86/boot/version.o
  VOFFSET arch/x86/boot/compressed/../voffset.h
  OBJCOPY arch/x86/boot/compressed/vmlinux.bin
  CC      arch/x86/boot/compressed/kaslr.o
  CC      arch/x86/boot/compressed/misc.o
  LZMA    arch/x86/boot/compressed/vmlinux.bin.lzma
  MKPIGGY arch/x86/boot/compressed/piggy.S
  AS      arch/x86/boot/compressed/piggy.o
  LD      arch/x86/boot/compressed/vmlinux
  ZOFFSET arch/x86/boot/zoffset.h
  OBJCOPY arch/x86/boot/vmlinux.bin
  AS      arch/x86/boot/header.o
  LD      arch/x86/boot/setup.elf
  OBJCOPY arch/x86/boot/setup.bin
  BUILD   arch/x86/boot/bzImage
Kernel: arch/x86/boot/bzImage is ready  (#3)
root@localhost:~/linux-6.9.1# make -j2 modules
mkdir -p /root/linux-6.9.1/tools/objtool && make O=/root/linux-6.9.1 subdir=tools/objtool --no-print-directory -C objtool
  INSTALL libsubcmd_headers
  CALL    scripts/checksyscalls.sh
  MODPOST Module.symvers
root@localhost:~/linux-6.9.1# make modules_install
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/drm_ttm_helper.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/drm_kms_helper.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/ttm/ttm.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/vmwgfx/vmwgfx.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/vboxvideo/vboxvideo.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/block/loop.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/net/ethernet/intel/e1000/e1000.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/serio/serio_raw.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/mouse/psmouse.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/joydev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/evdev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/busses/i2c-piix4.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/i2c-core.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/vboxguest/vboxguest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_common.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1#
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Zn

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/ttm/ttm.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/vmwgfx/vmwgfx.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/gpu/drm/vboxvideo/vboxvideo.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/block/loop.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/net/ethernet/intel/e1000/e1000.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/serio/serio_raw.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/mouse/psmouse.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/joydev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/evdev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/busses/i2c-piix4.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/i2c-core.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/vboxguest/vboxguest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_common.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /b
bin/  boot/
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
```

linux-6.9.1 : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Zn

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/block/loop.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/net/ethernet/intel/e1000/e1000.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/serio/serio_raw.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/mouse/psmouse.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/joydev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/evdev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/busses/i2c-piix4.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/i2c-core.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/vboxguest/vboxguest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_common.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /b
bin/  boot/
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1#
```

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Zn

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ehci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-hcd.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/usb/host/ohci-pci.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/serio/serio_raw.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/mouse/psmouse.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/joydev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/input/evdev.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/busses/i2c-piix4.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/i2c/i2c-core.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/virt/vboxguest/vboxguest.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_common.ko
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /b
bin/  boot/
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
```

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /b
bin/  boot/
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
root@localhost:/boot# /usr/share/mkinitrd/mkinitrd_command_generator.sh -k 6.9.1
#
# 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 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd.gz
root@localhost:/boot#
```

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
  INSTALL /lib/modules/6.9.1/kernel/drivers/powercap/intel_rapl_msr.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/soundcore.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-timer.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /b
bin/  boot/
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
root@localhost:/boot# /usr/share/mkinitrd/mkinitrd_command_generator.sh -k 6.9.1
#
# 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 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd.gz
root@localhost:/boot# mkinitrd -c -k 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd-custom-6.9.1.gz
```

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
  INSTALL /lib/modules/6.9.1/kernel/sound/core/snd-pcm.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/snd-intel8x0.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/pci/ac97/snd-ac97-codec.ko
  INSTALL /lib/modules/6.9.1/kernel/sound/ac97_bus.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/p8022.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/psnap.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/stp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/garp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/802/mrp.ko
  INSTALL /lib/modules/6.9.1/kernel/net/ipv6/ipv6.ko
  INSTALL /lib/modules/6.9.1/kernel/net/8021q/8021q.ko
  INSTALL /lib/modules/6.9.1/kernel/net/wireless/cfg80211.ko
  INSTALL /lib/modules/6.9.1/kernel/net/llc/llc.ko
  INSTALL /lib/modules/6.9.1/kernel/net/rfkill/rfkill.ko
  DEPMOD  /lib/modules/6.9.1
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /b
bin/  boot/
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
root@localhost:/boot# /usr/share/mkinitrd/mkinitrd_command_generator.sh -k 6.9.1
#
# 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 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd.gz
root@localhost:/boot# mkinitrd -c -k 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd-custom-6.9.1.gz
51365 bloków
/boot/initrd-custom-6.9.1.gz created.
Be sure to run lilo again if you use it.
root@localhost:/boot#
```

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
root@localhost:/boot# /usr/share/mkinitrd/mkinitrd_command_generator.sh -k 6.9.1
#
# 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 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd.gz
root@localhost:/boot# mkinitrd -c -k 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd-custom-6.9.1.gz
51365 bloków
/boot/initrd-custom-6.9.1.gz created.
Be sure to run lilo again if you use it.
root@localhost:/boot# grub-mkconfig -o /boot/grub/grub.cfg
Generowanie pliku konfiguracyjnego gruba...
Znaleziono obraz Linuksa: /boot/vmlinuz-huge-5.15.19
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-huge
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-generic-5.15.19
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-generic
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-custom-6.9.1
Znaleziono obraz initrd: /boot/initrd.gz
Uwaga: os-prober nie zostanie uruchomiony w celu wykrycia innych uruchamialnych partycji.
Systemy na nich nie zostaną dodane do konfiguracji rozruchowej GRUB-a.
Proszę sprawdzić dokumentację dotyczącą GRUB_DISABLE_OS_PROBER.
Dodawanie wpisu menu rozruchowego dla ustawień firmware'u UEFI...
gotowe
root@localhost:/boot#
```

boot : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
root@localhost:~/linux-6.9.1# cp arch/x86_64/boot/bzImage /boot/vmlinuz-custom-6.9.1
root@localhost:~/linux-6.9.1# cp System.map /boot/System.map-custom-6.9.1
root@localhost:~/linux-6.9.1# cp .config /boot/config-custom-6.9.1
root@localhost:~/linux-6.9.1# cd /boot/
root@localhost:/boot# rm System.map
root@localhost:/boot# ln -s System.map-custom-6.9.1 System.map
root@localhost:/boot# /usr/share/mkinitrd/mkinitrd_command_generator.sh -k 6.9.1
#
# 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 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd.gz
root@localhost:/boot# mkinitrd -c -k 6.9.1 -f ext4 -r /dev/sda3 -m ext4 -u -o /boot/initrd-custom-6.9.1.gz
51365 bloków
/boot/initrd-custom-6.9.1.gz created.
Be sure to run lilo again if you use it.
root@localhost:/boot# grub-mkconfig -o /boot/grub/grub.cfg
Generowanie pliku konfiguracyjnego gruba...
Znaleziono obraz Linuksa: /boot/vmlinuz-huge-5.15.19
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-huge
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-generic-5.15.19
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-generic
Znaleziono obraz initrd: /boot/initrd.gz
Znaleziono obraz Linuksa: /boot/vmlinuz-custom-6.9.1
Znaleziono obraz initrd: /boot/initrd.gz
Uwaga: os-prober nie zostanie uruchomiony w celu wykrycia innych uruchamialnych partycji.
Systemy na nich nie zostaną dodane do konfiguracji rozruchowej GRUB-a.
Proszę sprawdzić dokumentację dotyczącą GRUB_DISABLE_OS_PROBER.
Dodawanie wpisu menu rozruchowego dla ustawień firmware'u UEFI...
gotowe
root@localhost:/boot# reboot
```

Slackware15 (kernel_grub) [Uruchomiona] - Oracle VM VirtualBox

Plik Maszyna Widok Wejście Urządzenia Pomoc

Kosz

Katalog domowy

~ : bash — Konsola

Plik Edycja Widok Zakładki Wtyczki Ustawienia Pomoc

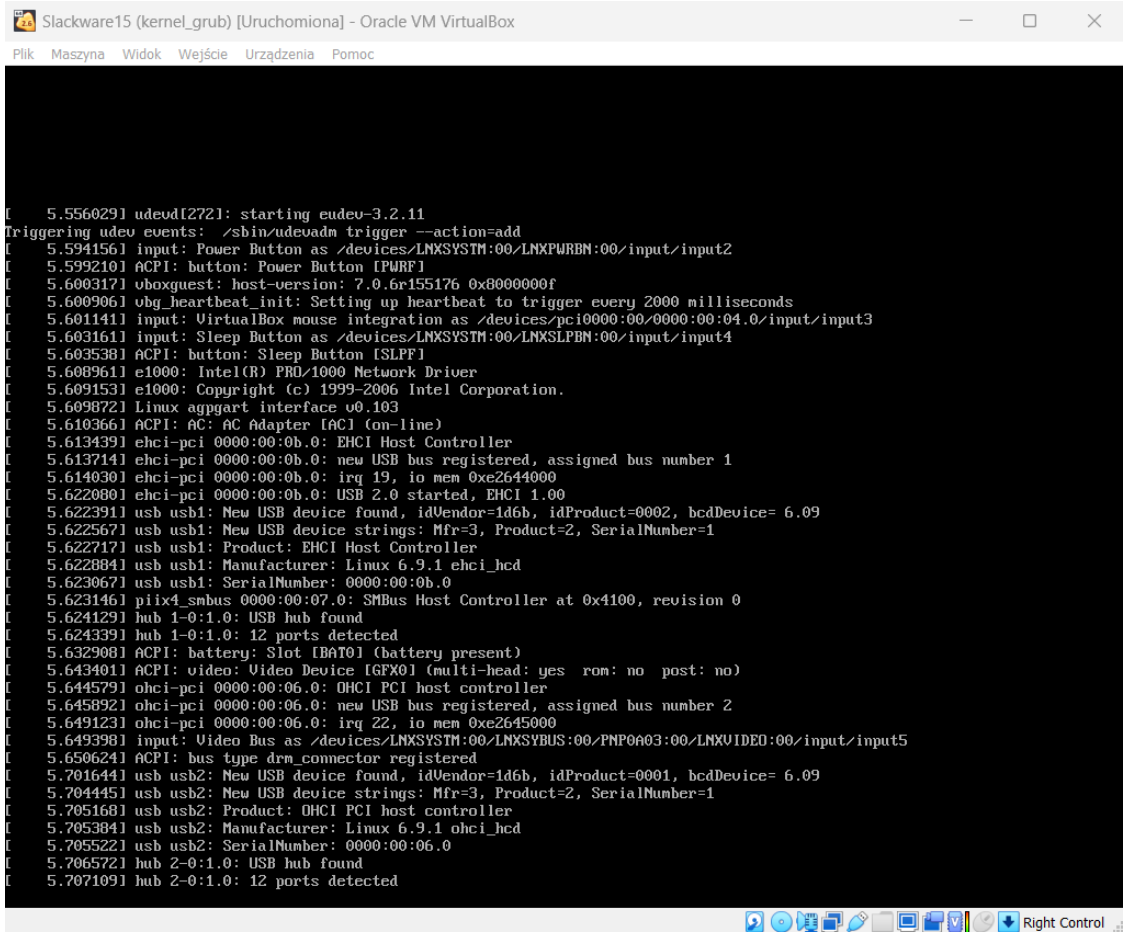
Nowa karta Widok podzielony Skopiuj Wklej Znajdź

```
root@localhost:~# uname -r
6.9.1
root@localhost:~# lsmod
Module                  Size  Used by
vboxvideo              36864  0
drm_vram_helper        28672  1 vboxvideo
cfg80211             1310720  0
8021q                  40960  0
garp                   16384  1 8021q
stp                    12288  1 garp
mrp                    20480  1 8021q
llc                    16384  2 stp,garp
rfkill                 40960  3 cfg80211
efivarfs               24576  1
ipv6                  720896  24
intel_rapl_msr         16384  0
joydev                 20480  0
vmwgfx                434176  2
snd_intel8x0           45056  2
drm_ttm_helper         12288  3 vmwgfx,drm_vram_helper,vboxvideo
ttm                    98304  3 vmwgfx,drm_vram_helper,drm_ttm_helper
snd_ac97_codec        196608  1 snd_intel8x0
intel_rapl_common      36864  1 intel_rapl_msr
ac97_bus               12288  1 snd_ac97_codec
crct10dif_pclmul       12288  1
crc32_pclmul           12288  0
drm_kms_helper        253952  4 vmwgfx,drm_vram_helper,vboxvideo
ghash_clmulni_intel    16384  0
psmouse               192512  0
evdev                  28672  11
snd_pcm               180224  2 snd_intel8x0,snd_ac97_codec
serio_raw              12288  0
intel_agp              24576  0
snd_timer              49152  1 snd_pcm
ohci_pci               12288  0
drm                   729088  9 vmwgfx,drm_kms_helper,drm_vram_helper,vboxvideo,drm_ttm_helper,ttm
battery                24576  0
ehci_pci               12288  0
intel_gtt              24576  1 intel_agp
```

System uruchomił się poprawnie z jądrem skompilowanym za pomocą metody localmodconfig

Wnioski

Za pierwszym razem zacząłem od metody localmodconfig (stara) i zakończyłem na zainstalowaniu modułów, następnie po reboocie system zatrzymał się w miejscu na screenie obok i musiałem przywrócić migawkę.

Podejrzewam, że problemem mogło być nie zaktualizowanie konfiguracji grub-a

Kolejną próbę zacząłem od metody streamline_config.pl (nowa) i wykonywałem polecenia zgodnie z tymi co na zajęciach, więc ostatecznie system włączył się bez problemu.
Następnie przy metodzie (starej) kompilowanie i instalacja obrazu jądra oraz modułów przebiegła bardzo szybko, jednak nie jestem pewny czy to za sprawą metody, czy dlatego, że wykonałem to wcześniej.