Subject: Regenerate /boot/grub2/grub.cfg
Posted by javii on Fri, 03 May 2019 07:20:10 GMT
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Hi,

I made some changes to /etc/default/grub and wanted to regenerate /boot/grub2/grub.cfg.

I have used grub2-mkconfig -o /boot/grub2/grub.cfg, but it detects kernels on containers:

[root@xxxx ~]# grub2-mkconfig -o /boot/grub2/grub.cfg
Generating grub configuration file ...
Found linux image: /boot/vmlinuz-3.10.0-957.10.1.vz7.85.17
Found initrd image: /boot/initramfs-3.10.0-957.10.1.vz7.85.17.img
Found linux image: /boot/vmlinuz-3.10.0-862.20.2.vz7.73.29
Found initrd image: /boot/initramfs-3.10.0-862.20.2.vz7.73.29.img
Found linux image: /boot/vmlinuz-3.10.0-862.11.6.vz7.64.7
Found initrd image: /boot/initramfs-3.10.0-862.11.6.vz7.64.7.img
Found linux image: /boot/vmlinuz-3.10.0-862.9.1.vz7.63.3
Found initrd image: /boot/initramfs-3.10.0-862.9.1.vz7.63.3.img
Found linux image: /boot/vmlinuz-3.10.0-693.21.1.vz7.48.2
Found initrd image: /boot/initramfs-3.10.0-693.21.1.vz7.48.2.img
Found linux image: /boot/vmlinuz-0-rescue-b2e055e14ad046a4aa729806b2a333a5
Found initrd image: /boot/initramfs-0-rescue-b2e055e14ad046a4aa729806b2a333a5.im g
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop10125p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop19562p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop22984p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop23428p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop33199p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop35810p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop46234p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop53660p1
Found Ubuntu 14.04.5 LTS (14.04) on /dev/ploop55076p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop57914p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop59002p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop60186p1
done

Is this a bug or this is not the correct way to regenerate /boot/grub2/grub.cfg?

Subject: Re: Regenerate /boot/grub2/grub.cfg
Posted by khorenko on Mon, 13 May 2019 11:15:31 GMT
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Hi,

javii wrote on Fri, 03 May 2019 10:20Is this a bug or this is not the correct way to regenerate

/boot/grub2/grub.cfg?

/etc/grub.d/30_os-prober calls /usr/bin/os-prober which detects that ploop devices for running (mounted) Containers contain linux distributives,
so grub2-mkconfig should consider creating a menu entry to it.

But a bit later /etc/grub.d/30_os-prober calls "linux-boot-prober" for ploop devices which detects that ploop devices are not marked a boot devices,
so grub entries are not needed to them.

So, nothing to worry about here: yes, grub detects Linux distro is installed on ploop devices,
but grub is wise enough to check the devices is not bootable and does not create redundant menu entries.

Subject: Re: Regenerate /boot/grub2/grub.cfg
Posted by javii on Mon, 13 May 2019 11:26:58 GMT
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Hi, our servers seems they are not wise enough, grub is generating conf for kernel containers:

[root@xxx ~]# grub2-mkconfig -o /boot/grub2/grub.cfg
Generating grub configuration file ...
Found linux image: /boot/vmlinuz-3.10.0-957.10.1.vz7.85.17
Found initrd image: /boot/initramfs-3.10.0-957.10.1.vz7.85.17.img
Found linux image: /boot/vmlinuz-3.10.0-862.20.2.vz7.73.29
Found initrd image: /boot/initramfs-3.10.0-862.20.2.vz7.73.29.img
Found linux image: /boot/vmlinuz-3.10.0-862.11.6.vz7.64.7
Found initrd image: /boot/initramfs-3.10.0-862.11.6.vz7.64.7.img
Found linux image: /boot/vmlinuz-3.10.0-862.9.1.vz7.63.3
Found initrd image: /boot/initramfs-3.10.0-862.9.1.vz7.63.3.img
Found linux image: /boot/vmlinuz-3.10.0-693.21.1.vz7.48.2
Found initrd image: /boot/initramfs-3.10.0-693.21.1.vz7.48.2.img
Found linux image: /boot/vmlinuz-0-rescue-e6718a50eaca4895b2d1dbf45bc7c021
Found initrd image: /boot/initramfs-0-rescue-e6718a50eaca4895b2d1dbf45bc7c021.img
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop15360p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop16120p1
Found CentOS release 5.11 (Final) on /dev/ploop24192p1
Found Ubuntu 16.04.4 LTS (16.04) on /dev/ploop25453p1
Found CentOS release 5.11 (Final) on /dev/ploop27099p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop30745p1
Found CentOS release 6.10 (Final) on /dev/ploop30895p1
Found CentOS release 6.10 (Final) on /dev/ploop35412p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop35431p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop40339p1
Found CentOS Linux release 7.6.1810 (Core) on /dev/ploop50665p1

```
Found CentOS release 6.10 (Final) on /dev/ploop53483p1
Found CentOS release 5.11 (Final) on /dev/ploop54152p1
done

[root@xxx ~]# cat /boot/grub2/grub.cfg
#
# DO NOT EDIT THIS FILE
#
# It is automatically generated by grub2-mkconfig using templates
# from /etc/grub.d and settings from /etc/default/grub
#

### BEGIN /etc/grub.d/00_header ###
set pager=1

if [ -s $prefix/grubenv ]; then
  load_env
fi
if [ "${next_entry}" ] ; then
   set default="${next_entry}"
   set next_entry=
   save_env next_entry
   set boot_once=true
else
   set default="${saved_entry}"
fi

if [ x"${feature_menuentry_id}" = xy ]; then
  menuentry_id_option="--id"
else
  menuentry_id_option=""
fi

export menuentry_id_option

if [ "${prev_saved_entry}" ]; then
  set saved_entry="${prev_saved_entry}"
  save_env saved_entry
  set prev_saved_entry=
  save_env prev_saved_entry
  set boot_once=true
fi

function savedefault {
  if [ -z "${boot_once}" ]; then
    saved_entry="${chosen}"
    save_env saved_entry
  fi
```

```
}

function load_video {
  if [ x$feature_all_video_module = xy ]; then
    insmod all_video
  else
    insmod efi_gop
    insmod efi_uga
    insmod ieee1275_fb
    insmod vbe
    insmod vga
    insmod video_bochs
    insmod video_cirrus
  fi
}

terminal_output console
if [ x$feature_timeout_style = xy ] ; then
  set timeout_style=menu
  set timeout=5
# Fallback normal timeout code in case the timeout_style feature is
# unavailable.
else
  set timeout=5
fi
### END /etc/grub.d/00_header ###

### BEGIN /etc/grub.d/00_tuned ###
set tuned_params=""
set tuned_initrd=""
### END /etc/grub.d/00_tuned ###

### BEGIN /etc/grub.d/01_users ###
if [ -f ${prefix}/user.cfg ]; then
  source ${prefix}/user.cfg
  if [ -n "${GRUB2_PASSWORD}" ]; then
    set superusers="root"
    export superusers
    password_pbkdf2 root ${GRUB2_PASSWORD}
  fi
fi
### END /etc/grub.d/01_users ###

### BEGIN /etc/grub.d/10_linux ###
menuentry 'Virtuozzo 7.0.10 (3.10.0-957.10.1.vz7.85.17)' --class openvz --class gnu-linux --class
gnu --class os --unrestricted $menuentry_id_option
'gnulinux-3.10.0-957.10.1.vz7.85.17-advanced-8099cb68-5795-444d-9ccf-460cc7bac2b8' {
        load_video
```

```
        set gfxpayload=keep
        insmod gzio
        insmod part_gpt
        insmod part_gpt
        insmod diskfilter
        insmod mdraid1x
        insmod ext2
        set root='mduuid/89c3f1a2c4ec6ef6ad62b90f715e3111'
        if [ x$feature_platform_search_hint = xy ]; then
          search --no-floppy --fs-uuid --set=root --hint='mduuid/89c3f1a2c4ec6ef6ad62b90f715e3111'
 1a220f99-00e6-42c5-b1dd-2a01225659dd
        else
          search --no-floppy --fs-uuid --set=root 1a220f99-00e6-42c5-b1dd-2a01225659dd
        fi
        linux16 /vmlinuz-3.10.0-957.10.1.vz7.85.17 root=/dev/mapper/openvz-root ro
crashkernel=auto rd.lvm.lv=openvz/root rd.md.uuid=01cba6c6:00c669cf:fad77f81:67a61f20
rd.md.uuid=89c3f1a2:c4ec6ef6:ad62b90f:715e3111
rd.md.uuid=15e18a8a:0ebcafe8:5db9e077:854a62a4 quiet
        initrd16 /initramfs-3.10.0-957.10.1.vz7.85.17.img
}
menuentry 'Virtuozzo 7.0.10 (3.10.0-862.20.2.vz7.73.29)' --class openvz --class gnu-linux --class
gnu --class os --unrestricted $menuentry_id_option
'gnulinux-3.10.0-862.20.2.vz7.73.29-advanced-8099cb68-5795-444d-9ccf-460cc7bac2b8' {
        load_video
        set gfxpayload=keep
        insmod gzio
        insmod part_gpt
        insmod part_gpt
        insmod diskfilter
        insmod mdraid1x
        insmod ext2
        set root='mduuid/89c3f1a2c4ec6ef6ad62b90f715e3111'
        if [ x$feature_platform_search_hint = xy ]; then
          search --no-floppy --fs-uuid --set=root --hint='mduuid/89c3f1a2c4ec6ef6ad62b90f715e3111'
 1a220f99-00e6-42c5-b1dd-2a01225659dd
        else
          search --no-floppy --fs-uuid --set=root 1a220f99-00e6-42c5-b1dd-2a01225659dd
        fi
        linux16 /vmlinuz-3.10.0-862.20.2.vz7.73.29 root=/dev/mapper/openvz-root ro
crashkernel=auto rd.lvm.lv=openvz/root rd.md.uuid=01cba6c6:00c669cf:fad77f81:67a61f20
rd.md.uuid=89c3f1a2:c4ec6ef6:ad62b90f:715e3111
rd.md.uuid=15e18a8a:0ebcafe8:5db9e077:854a62a4 quiet
        initrd16 /initramfs-3.10.0-862.20.2.vz7.73.29.img
}
menuentry 'Virtuozzo 7.0.10 (3.10.0-862.11.6.vz7.64.7)' --class openvz --class gnu-linux --class
gnu --class os --unrestricted $menuentry_id_option
'gnulinux-3.10.0-862.11.6.vz7.64.7-advanced-8099cb68-5795-444d-9ccf-460cc7bac2b8' {
        load_video
```

```
        set gfxpayload=keep
        insmod gzio
        insmod part_gpt
        insmod part_gpt
        insmod diskfilter
        insmod mdraid1x
        insmod ext2
        set root='mduuid/89c3f1a2c4ec6ef6ad62b90f715e3111'
        if [ x$feature_platform_search_hint = xy ]; then
          search --no-floppy --fs-uuid --set=root --hint='mduuid/89c3f1a2c4ec6ef6ad62b90f715e3111'
 1a220f99-00e6-42c5-b1dd-2a01225659dd
        else
          search --no-floppy --fs-uuid --set=root 1a220f99-00e6-42c5-b1dd-2a01225659dd
        fi
        linux16 /vmlinuz-3.10.0-862.11.6.vz7.64.7 root=/dev/mapper/openvz-root ro
crashkernel=auto rd.lvm.lv=openvz/root rd.md.uuid=01cba6c6:00c669cf:fad77f81:67a61f20
rd.md.uuid=89c3f1a2:c4ec6ef6:ad62b90f:715e3111
rd.md.uuid=15e18a8a:0ebcafe8:5db9e077:854a62a4 quiet
        initrd16 /initramfs-3.10.0-862.11.6.vz7.64.7.img
}
menuentry 'Virtuozzo 7.0.10 (3.10.0-862.9.1.vz7.63.3)' --class openvz --class gnu-linux --class
gnu --class os --unrestricted $menuentry_id_option
'gnulinux-3.10.0-862.9.1.vz7.63.3-advanced-8099cb68-5795-444d-9ccf-460cc7bac2b8' {
        load_video
        set gfxpayload=keep
        insmod gzio
        insmod part_gpt
        insmod part_gpt
        insmod diskfilter
        insmod mdraid1x
        insmod ext2
        set root='mduuid/89c3f1a2c4ec6ef6ad62b90f715e3111'
        if [ x$feature_platform_search_hint = xy ]; then
          search --no-floppy --fs-uuid --set=root --hint='mduuid/89c3f1a2c4ec6ef6ad62b90f715e3111'
 1a220f99-00e6-42c5-b1dd-2a01225659dd
        else
          search --no-floppy --fs-uuid --set=root 1a220f99-00e6-42c5-b1dd-2a01225659dd
        fi
        linux16 /vmlinuz-3.10.0-862.9.1.vz7.63.3 root=/dev/mapper/openvz-root ro crashkernel=auto
rd.lvm.lv=openvz/root rd.md.uuid=01cba6c6:00c669cf:fad77f81:67a61f20
rd.md.uuid=89c3f1a2:c4ec6ef6:ad62b90f:715e3111
rd.md.uuid=15e18a8a:0ebcafe8:5db9e077:854a62a4 quiet
        initrd16 /initramfs-3.10.0-862.9.1.vz7.63.3.img
}
menuentry 'Virtuozzo 7.0.10 (3.10.0-693.21.1.vz7.48.2)' --class openvz --class gnu-linux --class
gnu --class os --unrestricted $menuentry_id_option
'gnulinux-3.10.0-693.21.1.vz7.48.2-advanced-8099cb68-5795-444d-9ccf-460cc7bac2b8' {
        load_video
```

```
        set gfxpayload=keep
        insmod gzio
        insmod part_gpt
        insmod part_gpt
        insmod diskfilter
        insmod mdraid1x
        insmod ext2
        set root='mduuid/89c3f1a2c4ec6ef6ad62b90f715e3111'
        if [ x$feature_platform_search_hint = xy ]; then
          search --no-floppy --fs-uuid --set=root --hint='mduuid/89c3f1a2c4ec6ef6ad62b90f715e3111'
 1a220f99-00e6-42c5-b1dd-2a01225659dd
        else
          search --no-floppy --fs-uuid --set=root 1a220f99-00e6-42c5-b1dd-2a01225659dd
        fi
        linux16 /vmlinuz-3.10.0-693.21.1.vz7.48.2 root=/dev/mapper/openvz-root ro
crashkernel=auto rd.lvm.lv=openvz/root rd.md.uuid=01cba6c6:00c669cf:fad77f81:67a61f20
rd.md.uuid=89c3f1a2:c4ec6ef6:ad62b90f:715e3111
rd.md.uuid=15e18a8a:0ebcafe8:5db9e077:854a62a4 quiet
        initrd16 /initramfs-3.10.0-693.21.1.vz7.48.2.img
}
menuentry 'Virtuozzo 7.0.10 (0-rescue-e6718a50eaca4895b2d1dbf45bc7c021)' --class openvz
--class gnu-linux --class gnu --class os --unrestricted $menuentry_id_option
'gnulinux-0-rescue-e6718a50eaca4895b2d1dbf45bc7c021-advanced-8099cb68-5795-444d-9ccf-4
60cc7bac2b8' {
        load_video
        insmod gzio
        insmod part_gpt
        insmod part_gpt
        insmod diskfilter
        insmod mdraid1x
        insmod ext2
        set root='mduuid/89c3f1a2c4ec6ef6ad62b90f715e3111'
        if [ x$feature_platform_search_hint = xy ]; then
          search --no-floppy --fs-uuid --set=root --hint='mduuid/89c3f1a2c4ec6ef6ad62b90f715e3111'
 1a220f99-00e6-42c5-b1dd-2a01225659dd
        else
          search --no-floppy --fs-uuid --set=root 1a220f99-00e6-42c5-b1dd-2a01225659dd
        fi
        linux16 /vmlinuz-0-rescue-e6718a50eaca4895b2d1dbf45bc7c021
root=/dev/mapper/openvz-root ro crashkernel=auto rd.lvm.lv=openvz/root
rd.md.uuid=01cba6c6:00c669cf:fad77f81:67a61f20
rd.md.uuid=89c3f1a2:c4ec6ef6:ad62b90f:715e3111
rd.md.uuid=15e18a8a:0ebcafe8:5db9e077:854a62a4 quiet
        initrd16 /initramfs-0-rescue-e6718a50eaca4895b2d1dbf45bc7c021.img
}

### END /etc/grub.d/10_linux ###
```

```
### BEGIN /etc/grub.d/20_linux_xen ###
### END /etc/grub.d/20_linux_xen ###

### BEGIN /etc/grub.d/20_ppc_terminfo ###
### END /etc/grub.d/20_ppc_terminfo ###

### BEGIN /etc/grub.d/30_os-prober ###
menuentry 'CentOS Linux release 7.6.1810 (Core)  (on /dev/ploop15360p1)' --class gnu-linux
--class gnu --class os $menuentry_id_option
'osprober-gnulinux-simple-3c124667-8950-4f97-a601-86343043b9e1' {
        insmod ext2
        if [ x$feature_platform_search_hint = xy ]; then
          search --no-floppy --fs-uuid --set=root  3c124667-8950-4f97-a601-86343043b9e1
        else
          search --no-floppy --fs-uuid --set=root 3c124667-8950-4f97-a601-86343043b9e1
        fi
        linux /boot/vmlinuz-3.10.0-514.10.2.el7.x86_64 root=/dev/ploop15360p1
        initrd /boot/initramfs-3.10.0-514.10.2.el7.x86_64.img
}
submenu 'Advanced options for CentOS Linux release 7.6.1810 (Core)  (on /dev/ploop15360p1)'
$menuentry_id_option 'osprober-gnulinux-advanced-3c124667-8950-4f97-a601-86343043b9e1' {
        menuentry 'CentOS Linux release 7.6.1810 (Core)  (on /dev/ploop15360p1)' --class gnu-linux
--class gnu --class os $menuentry_id_option
'osprober-gnulinux-/boot/vmlinuz-3.10.0-514.10.2.el7.x86_64--3c124667-8950-4f97-a601-863430
43b9e1' {
                insmod ext2
                if [ x$feature_platform_search_hint = xy ]; then
                  search --no-floppy --fs-uuid --set=root  3c124667-8950-4f97-a601-86343043b9e1
                else
                  search --no-floppy --fs-uuid --set=root 3c124667-8950-4f97-a601-86343043b9e1
                fi
                linux /boot/vmlinuz-3.10.0-514.10.2.el7.x86_64 root=/dev/ploop15360p1
                initrd /boot/initramfs-3.10.0-514.10.2.el7.x86_64.img
        }
        menuentry 'CentOS Linux release 7.6.1810 (Core)  (on /dev/ploop15360p1)' --class gnu-linux
--class gnu --class os $menuentry_id_option
'osprober-gnulinux-/boot/vmlinuz-3.10.0-957.1.3.el7.x86_64--3c124667-8950-4f97-a601-8634304
3b9e1' {
                insmod ext2
                if [ x$feature_platform_search_hint = xy ]; then
                  search --no-floppy --fs-uuid --set=root  3c124667-8950-4f97-a601-86343043b9e1
                else
                  search --no-floppy --fs-uuid --set=root 3c124667-8950-4f97-a601-86343043b9e1
                fi
                linux /boot/vmlinuz-3.10.0-957.1.3.el7.x86_64 root=/dev/ploop15360p1
                initrd /boot/initramfs-3.10.0-957.1.3.el7.x86_64.img
        }
.....
```

```
### END /etc/grub.d/30_os-prober ###

### BEGIN /etc/grub.d/40_custom ###
# This file provides an easy way to add custom menu entries.  Simply type the
# menu entries you want to add after this comment.  Be careful not to change
# the 'exec tail' line above.
### END /etc/grub.d/40_custom ###

### BEGIN /etc/grub.d/41_custom ###
if [ -f  ${config_directory}/custom.cfg ]; then
  source ${config_directory}/custom.cfg
elif [ -z "${config_directory}" -a -f  $prefix/custom.cfg ]; then
  source $prefix/custom.cfg;
fi
### END /etc/grub.d/41_custom ###
```

Thank you. Regards.

Subject: Re: Regenerate /boot/grub2/grub.cfg
Posted by khorenko on Mon, 13 May 2019 14:09:17 GMT
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i don't see menu entries for ploop devices in your config.
There are multiple menu entries because you have several kernels installed on your node.

Subject: Re: Regenerate /boot/grub2/grub.cfg
Posted by javii on Mon, 13 May 2019 14:11:36 GMT
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Look at the end

```
### BEGIN /etc/grub.d/30_os-prober ###
menuentry 'CentOS Linux release 7.6.1810 (Core)  (on /dev/ploop15360p1)' --class gnu-linux
--class gnu --class os $menuentry_id_option
'osprober-gnulinux-simple-3c124667-8950-4f97-a601-86343043b9e1' {
        insmod ext2
        if [ x$feature_platform_search_hint = xy ]; then
          search --no-floppy --fs-uuid --set=root  3c124667-8950-4f97-a601-86343043b9e1
        else
          search --no-floppy --fs-uuid --set=root 3c124667-8950-4f97-a601-86343043b9e1
        fi
        linux /boot/vmlinuz-3.10.0-514.10.2.el7.x86_64 root=/dev/ploop15360p1
```

```
        initrd /boot/initramfs-3.10.0-514.10.2.el7.x86_64.img
}
```

Subject: Re: Regenerate /boot/grub2/grub.cfg
Posted by khorenko on Mon, 13 May 2019 15:03:45 GMT
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Ah, right, i just did not expand your previous message, sorry.

Yes, something went wrong here, may be those devices were marked as bootable,
may be something else, need to debug grub scripts to findout the reason.

i tried the same on my test node, no menu entries were generated for ploop devices of running Containers.

So you are welcome to debug grub scripts and find the difference between those ploops which trigger menu entries creation and those which do not.

Subject: Re: Regenerate /boot/grub2/grub.cfg
Posted by javii on Tue, 14 May 2019 07:08:55 GMT
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Ok. Sorry for ignorance, how could I debug grub scripts?

Subject: Re: Regenerate /boot/grub2/grub.cfg
Posted by khorenko on Tue, 14 May 2019 08:14:30 GMT
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grub scripts are shell scripts, AFAIS,
so just insert "set -x" at the beginning of the script you are interested in and run your command,
it will generate debug output.

Probably you need this script - /etc/grub.d/30_os-prober