## Hinweise

Um ein Custom CloneZilla erstellen zu können muss man zu erst von CloneZilla live booten. Ich mache das in einer virtuellen Umgebung mit virtueller Netzwerkkarte sowie einer virtuellen 10GB SSD

Einmal gebootet muss man auf die Command Line.

## CloneZilla vorbereiten

**Für Netzwerkzugriff**

Dhclient

**Damit sinnvoll gearbeitet kann**

Mkdir -p /mnt/data

sudo mount -t cifs -o username=flow,password=eistee,uid=33,gid=33,file\_mode=0770,dir\_mode=0770 //flomv/Daten /mnt/data

**Das /mnt/partimag Arbeitsverzeichnis vorbereiten**

prep-ocsroot

## HowTo CloneZilla ISO zum bauen von diversen Customs erstellen

This is usefull if you want to reboot itg and work on many days… so you have a bootable Clonezilla with everything preconfigured to work on your project

### Custom Skript mit CloneZilla builden

1. First, prepare your own program, say, a script "custom-ocs". A sample script file
   1. Examples here “/usr/share/drbl/samples/custom-ocs”
   2. If you edit the script on MS windows, you have to convert the format to Unix format. You can use the command "dos2unix" to convert it to UNIX format. If you do not convert the format, your script won't work on Unix/Linux system.
2. Boot Clonezilla live, enter command prompt, and run "sudo su -" to become root.
3. Tipp: connect a cifs share where you skripts are on which you work from your workstation
   1. Mkdir -p /mnt/data
   2. sudo mount -t cifs -o username=user,password=password,uid=33,gid=33,file\_mode=0770,dir\_mode=0770 //10.0.0.2 /mnt/data
4. Mount a working space as /home/partimag. You can use the command "prep-ocsroot" to help you to do that, or use mount command to mount that. E.g. run "mount /dev/sda1 /home/partimag" to use /dev/sda1 as the working dir.
5. Copy the custom-ocs to dir /home/partimag.
6. cd /home/partimag
7. Run the follow on Clonezilla live command prompt:
   1. **ocs-iso -g en\_US.UTF-8 -k NONE -s -m ./custom-ocs**

to create the iso file for CD/DVD. or

* 1. **ocs-live-dev -g en\_US.UTF-8 -k NONE -s -c -m ./custom-ocs**

to create the zip file for USB flash drive.

1. In the above examples, "-g en\_US.UTF-8" means the language will be English, "-k NONE" means won't change the keyboard layout (default is US keyboard). For other options, please run "ocs-iso -h" or "ocs-live-dev -h" to get more info.
2. Tip, instead of “-k NONE”, “-k de” forf a german layout
3. Copy the output file from /home/partimag to the cifs share

**Fertiger Skript:**

"X:\Server-Daten\Server u. Netzwerk\Threefold\CloneZillaCreation\CZToCreateCustoms.sh"

## HowTo CloneZilla bootable ISO mit eigenem Menü und Skript erstellen

### Ein Clonezilla Abbild zum weiter bearbeiten erstellen

1. Vorbereitetes CloneZilla zum erstellen von ISOs starten
2. “sudo su -“ ausführen
3. **prep-ocsroot** ausführen um ein Arbeitsverzeichnis zu erstellen und noch andere Vorbereitungen.
4. Mit cd in /mnt/partimag wechseln.
5. Folgenden Befehl ausführen
   1. ocs-live-dev -g en\_US.UTF-8 -k de -s -c -a syslinux
6. Es wird ein ZIP file in /home/partimag erstellt
7. Das File auf den CIFS-Share kopieren
   1. cp /home/partimag/<file> /mnt/data/<pfad>
8. Auf der Workingstation das ZIP-File entpacken

### Custom Skript in Clonezilla Abbild ablegen

1. Auf der Workingstation einen Skript erstellen
2. Auf der Workingstation den Skript in den zuvor entpackten Ordner unter /live/\* ablegen

Hinweis:

Der ordner “live” welcher sich im entpackten Archiv befindet und im späteren Schritt im root des ISO / USB-Sticks enthalten ist, wird nach Clonezilla start in "/run/live/medium/live/” gemountet!

### Bootmenu und Startparemeter anpassen

1. Das zuvor erstelle ISO oder ZIP entpacken
2. In das zuvor entpackte Verzeichnis wechseln
3. Folgende Dateien je nach Isolinux bootloader oder Grub bootloader anpassen
   1. /syslinux/syslinux.cfg
   2. /syslinux/isolinux.cfg
   3. /boot/grub/grub.cfg
4. Ein neues Background Bild unter /syslinux/ ablegen und in den \*.cfg den namen ersetzen.
5. Die OCS bootparameter je Menüeintrag anpassen.

#### Menü Beispiel

##### Getestetes Menü Design

https://wiki.syslinux.org/wiki/index.php?title=Menu#MENU\_BACKGROUND

**Resolution dem Background Bild anpassen (\*.png)**

MENU RESOLUTION 800 600

MENU BACKGROUND bg.png

##### Getestete Startparameter

  kernel /live/vmlinuz

    append initrd=/live/initrd.img boot=live union=overlay username=user hostname=nodebackuptool edd=on ocs\_live\_run="/run/live/medium/live/BackupNode.sh -q -s" ocs\_live\_extra\_param="" ocs\_live\_batch="no" ocs\_lang="" locales=en\_US.UTF-8 keyboard-layouts=de noprompt mode\_option=800x600 toram=live,syslinux,boot,utils nospalsh

**Achtung!**

toram=EFI und toram=.disk führt bei mir zu einem Fehler.

### Aus den angepassten Daten ein bootable ISO erstellen

Make sure you have a recent-enough version of mkisofs or equivalent. Regarding mkisofs, version 1.13 or newer is recommended (distributed with cdrecord 1.9 ), but 1.12 might work as well (not tested). Binary versions for Windows can be found on the web.

[5.00+] For version 5.00 or newer, also copy "[bios/]com32/elflink/ldlinux/ldlinux.c32" from the Syslinux archive

1. Folgenden Befehl ausführen um ein bootable Iso zu erstellen (boot.cat wird erstellt):

mkisofs -o output.iso -b syslinux/isolinux.bin -c syslinux/boot.cat -no-emul-boot -boot-load-size 4 -boot-info-table <Entpacktes Verzeichnis>

Hinweis: option „-l“ wenn man Langdateinamen haben möchte

-l Allow full 31-character filenames. Normally the ISO9660 filename will be in an 8.3

format which is compatible with MS-DOS, even though the ISO9660 standard allows file-

names of up to 31 characters. If you use this option, the disc may be difficult to

use on a MS-DOS system, but will work on most other systems. Use with caution.

Achtung! Die Dateinamen warden verändert! Aus Test-XYz.exe wird zB. TEST\_XYZ.EXE

## Custom-Skript Vorlage

#!/bin/bash

# Author: Florian Gabriel (omniflow)

# Begin of the scripts:

# Load DRBL setting and functions

DRBL\_SCRIPT\_PATH="${DRBL\_SCRIPT\_PATH:-/usr/share/drbl}"

. $DRBL\_SCRIPT\_PATH/sbin/drbl-conf-functions

. /etc/drbl/drbl-ocs.conf

. $DRBL\_SCRIPT\_PATH/sbin/ocs-functions

# load the setting for clonezilla live.

[ -e /etc/ocs/ocs-live.conf ] && . /etc/ocs/ocs-live.conf

# Load language files. For English, use "en\_US.UTF-8".

ask\_and\_load\_lang\_set en\_US.UTF-8

# The above is almost necessary, it is recommended to include them in your own custom-ocs.

# From here, you can write your own scripts.

## Hilfreiche CZ Commands

**DHCP aktivieren**

dhclient

**Tastaturlayout ändern**

dpkg-reconfigure console-data

dpkg-reconfigure keyboard-configuration

Commands fürs Skripten  
  
**Verzeichnis erstellen auch wenn es bereits existiert**

mkdir -p

**Mount Cifs**

sudo mount -t cifs -o username=$user,password=$password,uid=33,gid=33,file\_mode=0770,dir\_mode=0770 $remote$mntFolder

## OCS-ISO command options

echo "Usage:"

echo "To put clonezilla image into live CD:"

echo "$prog [OPTION] CLONEZILLA\_IMAGE\_NAME"

echo "OPTION:"

language\_help\_prompt\_by\_idx\_no

echo "-a, --file-name-prefix NAME Assign the output file name as NAME.iso. $0 will auto append '.iso' in the end of filename."

echo "-b, --bg-mode [text|graphic] Assign the background of boot menu. Default is graphic"

echo "-e, --extra-param PARAM Assign extra parameter PARAM for clonezilla live to run, PARAM will be appended when run in ocs-live-restore or ocs."

echo "-f, --on-the-fly DEV Write the output to CD/DVD writer DEV (such as /dev/hdc) instead of creating an ISO file."

echo "-g, --ocs-live-language LANGUAGE Assign the language when using clonezilla live, available languages are en\_US.UTF-8, zh\_TW.UTF-8 "

echo "-i, --assign-version-no NO Assign the version no as NO instead of date. This only works when using with option -s."

echo "-j, --debian-iso ISO\_FILE Assign Debian live template iso file name as ISO\_FILE to be used to create Clonezilla live. By default the ISO\_FILE is \"$DEBIAN\_ISO\_DEF\"."

echo "-k, --ocs-live-keymap KEYBOARD\_LAYOUT Assign the keyboard layout when using clonezilla live. You can find the keyboard layout in /usr/share/X11/xkb/rules/base.lst. e.g. use '-k fr' for French keyboard layout. If 'NONE' is used, the default one (US keyboard) will be use. For more info, please check the live manual on Debian Live website."

echo "-m, --custom-ocs PATH/custom-ocs Use the customized ocs program 'custom-ocs' instead of the default one. Note! PATH should be assigned so that it can be found. This is advanced mode."

echo "-n, --ocs-live-boot-menu-option EXTRA\_OPTION Assign an extra option for ocs-live-boot-menu. //NOTE// Do not put '-' in this EXTRA\_OPTION, $0 will add that automatically. e.g. if you want to add -s1 for ocs-live-boot-menu to run, use 's1' only."

echo "-o, --normal-menu When a clonezilla image is inserted, by default only restore menu will be shown in the created ISO file. If you want to show normal menu, i.e. with save and restore menu, use this one."

echo "-p, --image-path Assign the clonezilla image path where CLONEZILLA\_IMAGE\_NAME exists. Default = $ocsroot"

echo "-r, --ocs-live-boot-menu-timeout PARAM Set live boot menu timeout argument for ocs-live-boot-menu to PARAM."

echo "-s, --skip-image Do not include any clonezilla image. The is used to created a live CD with DRBL/Clonezilla programs only."

echo "-t, --ocs-live-batch Set clonezilla live to run in batch mode, usually it's for restoring. If this mode is set, some dialog question will be ignored."

echo "-u, --include-dir DIR Include a dir in the target iso file."

echo "-x, --extra-boot-param EXTRA\_PARAM Assign extra boot parameter EXTRA\_PARAM for clonezilla live kernel to read. These parameters are the same with that from live-boot or live-config. Ex. \"noeject\" can be use to not prompt to eject the CD on reboot."

echo "-y, --syslinux-ver VER Assign the syslinux version as VER. E.g. 6.02, 6.03-pre1"

echo "$prog will download a template Debian live CD for clonezilla iso file if ncecessary. You can also download it by yourself, and put it in the working directory when you run $prog. If you want to create that template iso file in Debian Etch, run create-debian-live."

echo "NOTE! Due to the limitation in mkisofs, this program does not work in clonezilla image file larger than $FILE\_LIMIT MB."

echo "Ex:"

echo "To put clonezilla image squeeze-ocs (located in /home/partimag in clonezilla server) to Live CD, you can run:"

echo " $prog squeeze-ocs"

echo "To put more images, just append them, such as:"

echo " $prog squeeze-ocs etch-ocs"

echo "To create a Live CD with DRBL/Clonezilla programs:"

echo " $prog -s"

echo "To put clonezilla image squeeze-ocs, etch-ocs to to Live CD, and write it to cd writer /dev/hdc, you can run:"

echo " $prog -f /dev/hdc squeeze-ocs etch-ocs"

echo "To create an iso file for restoring with clonezilla image squeeze-r5 builtin, and make it boot then restore the image squeeze-r5 to sda in unattended mode (Only confirmation in the beginning), you can run:"

echo " $prog -g en\_US.UTF-8 -t -k NONE -e \"-b -c restoredisk squeeze-r5 sda\" squeeze-r5"

echo "To create an iso file to run your own custom-ocs program:"

echo " $prog -g en\_US.UTF-8 -k NONE -s -m ./custom-ocs"

## OCS-LIVE-DEV command options

echo "Usage:"

echo "To put clonezilla image into a bootable device (such as pendrive/usb stick):"

echo "$prog [OPTION] DEV CLONEZILLA\_IMAGE\_NAME"

echo "CLONEZILLA\_IMAGE\_NAME The image exists in the system"

echo "OPTION:"

language\_help\_prompt\_by\_idx\_no

echo "-a, --boot-loader [grub|syslinux] Force to use grub or syslinux as boot loader in target device"

echo "-b, --bg-mode [text|graphic] Assign the background of boot menu. Default is graphic"

echo "-c, --create-release Create a USB package release file, this will not create a bootable device, instead it will create a zip file contain all necessary files to make it boot and run clonezilla live."

echo "-d, --dev DEV Write the output to DEV (such as /dev/sdg1)"

echo "-e, --extra-param PARAM Assign extra parameter PARAM for clonezilla live to run, PARAM will be appended when run in ocs-live-restore or ocs."

echo "-f, --batch-mode Run $prog in batch, unattended mode."

echo "--file-name-prefix NAME Assign the output file name as NAME.zip or NAME.tar. $0 will auto append '.zip' or '.tar' in the end of filename."

echo "-g, --ocs-live-language LANGUAGE Assign the language when using clonezilla live, available languages are en\_US.UTF-8, zh\_TW.UTF-8 "

echo "-i, --assign-version-no NO Assign the version no as NO instead of date. This only works when using with option -s and -c."

echo "-j, --debian-iso ISO\_FILE Assign Debian live template iso file name as ISO\_FILE to be used to create Clonezilla live. By default the ISO\_FILE is \"$DEBIAN\_ISO\_DEF\"."

echo "-k, --ocs-live-keymap KEYBOARD\_LAYOUT Assign the keyboard layout when using clonezilla live. You can find the keyboard layout in /usr/share/X11/xkb/rules/base.lst. e.g. use '-k fr' for French keyboard layout. If 'NONE' is used, the default one (US keyboard) will be use. For more info, please check the live manual on Debian Live website."

echo "-m, --custom-ocs PATH/custom-ocs Use the customized ocs program 'custom-ocs' instead of the default one. Note! PATH should be assigned so that it can be found. This is advanced mode."

echo "-n, --ocs-live-boot-menu-option EXTRA\_OPTION Assign an extra option for ocs-live-boot-menu. //NOTE// Do not put '-' in this EXTRA\_OPTION, $0 will add that automatically. e.g. if you want to add -s1 for ocs-live-boot-menu to run, use 's1' only."

echo "-o, --normal-menu When a clonezilla image is inserted, by default only restore menu will be shown in the created ISO file. If you want to show normal menu, i.e. with save and restore menu, use this one."

echo "-p, --image-path Assign the clonezilla image source path where CLONEZILLA\_IMAGE\_NAME exists in this server. Default = $ocsroot"

echo "-q, --existing-img To use image exists on the destination device when creating recovery device (e.g. /dev/sdg1). the image might already exist (copied or created on the device before). For other mode, image is copied or linked in this program."

echo "-r, --ocs-live-boot-menu-timeout PARAM Set live boot menu timeout argument for ocs-live-boot-menu to PARAM."

echo "-s, --skip-image Do not include any clonezilla image. The is used to created a live CD or USB flash drive with DRBL/Clonezilla programs only."

echo "-t, --ocs-live-batch Set clonezilla live to run in batch mode, usually it's for restoring. If this mode is set, some dialog question will be ignored."

echo "-u, --include-dir DIR Include a dir in the target zip file."

echo "-x, --extra-boot-param EXTRA\_PARAM Assign extra boot parameter EXTRA\_PARAM for clonezilla live kernel to read. These parameters are the same with that from live-boot or live-config. Ex. \"noeject\" can be use to not prompt to eject the CD on reboot."

echo "-y, --syslinux-ver VER Assign the syslinux version as VER. E.g. 6.02, 6.03-pre1"

echo "-z, --prefer-archive PROG Assign the archive program as PROG (tar or zip). Default program is $prefer\_archive."

echo "$prog will download a template Debian live CD for clonezilla iso file if ncecessary. You can also download it by yourself, and put it in the working directory when you run $prog. If you want to create that template iso file in Debian Etch, run create-debian-live."

echo "NOTE! You have to prepare the target partition first, and the filesystem should be ready (FAT or ext2/3)."

echo "Ex:"

echo "To put clonezilla image squeeze-ocs (located in /home/partimag in clonezilla server) to USB device /dev/sdg1, you can run:"

echo " $prog -d /dev/sdg1 squeeze-ocs"

echo "To put more images, just append them, such as:"

echo " $prog -d /dev/sdg1 squeeze-ocs etch-ocs"

echo "To create a bootable, recovery USB device (e.g. /dev/sdg1, VFAT file system) with image \"precise-x86-20140206\" included:"

echo " $prog -g en\_US.UTF-8 -t -k NONE -d /dev/sdg1 -e \"-g auto -e1 auto -e2 -c -r -j2 -p choose restoredisk precise-x86-20140206 sda\" precise-x86-20140206"

echo "To create a Live USB device with DRBL/Clonezilla programs, which can be used to save image:"

echo " $prog -s -d /dev/sdg1"

echo "To create a zip file of general purpose Clonezilla live. Later it can be put in an USB flash drive or similar device:"

echo " $prog -s -c"

echo "To create a zip file for restoring with clonezilla image squeeze-r5 builtin, and make it boot then restore the image squeeze-r5 to sda in unattended mode (Only confirmation in the beginning), you can run:"

echo " $prog -c -g en\_US.UTF-8 -t -k NONE -e \"-b -c restoredisk squeeze-r5 sda\" squeeze-r5"

echo "To create a zip file to run your own custom-ocs program:"

echo " $prog -g en\_US.UTF-8 -k NONE -s -c -m ./custom-ocs"