Building a Live-CD for
Tryton / GNU Health

Axel Braun
Introduction
Navigate through SUSE Studio
Basic functionalities
Modify an existing Live system
Testdrive
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Member of openSUSE project
Package maintainer for (among others) GNU Health and GNU Health Live CD

Supported education project: Favela Education (.org)
Supported medical project: GNU Health
Introduction
GNU Health is a Free/Libre project for health practitioners, health institutions and governments.
Bringing Software to the user...

010011
SUSE Tools

openQA

openSUSE

SUSE

Machinery
## Live-CD – Downloads & Clones

<table>
<thead>
<tr>
<th>Software</th>
<th>Downloads</th>
<th>Clones</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GNH Health 2.8</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>openSUSE 13.2</td>
<td>230</td>
<td>21</td>
</tr>
<tr>
<td>openSUSE 13.1</td>
<td>1021</td>
<td>26</td>
</tr>
<tr>
<td>SLES</td>
<td>118</td>
<td>20</td>
</tr>
<tr>
<td><strong>GNU Health 2.6</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>openSUSE 13.1</td>
<td>763</td>
<td>35</td>
</tr>
<tr>
<td><strong>GNU Health 2.4</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>openSUSE 13.1</td>
<td>461</td>
<td>24</td>
</tr>
<tr>
<td><strong>Total (as of 25.09.2015)</strong></td>
<td>2468</td>
<td>125</td>
</tr>
</tbody>
</table>
Navigate through SUSE Studio
More than 500,000 users
~1000 builds per day
A revolutionary new way to create technology
SUSE Studio
Basic Functionality
Welcome to SUSE Studio!

Configure your appliance using the tabs above.

When you're finally done making everything the way you want, visit the Build tab to generate your appliance.

But first, give your appliance a name! It will be used in the boot screen and in several other places.

Appliance name: GNU Health 2.4.1 / KDE 4 / 32bit

Switch to the Software tab to continue »
Navigation - Software

Software sources


Add repositories... Upload and manage RPMs...

Selected software

Patterns: base, kde4, x11

Packages: bundle-lang-kde-en, crda, dbus-1-x11, gdk-pixbuf-loader-rsvg, glibc-locale, glibc-locale, gnuhealth, grub2, icewm, iputils, ipw-firmware, iw, kde4-kgreeter-plugins, kdebase4-openSUSE, kdebase4-workspace-branding-openSUSE, kdebase4-workspace-ksysguardd, kdm, kdm-branding-openSUSE, kernel-default, kernel-firmware, konsole, less, libiw80, libreoffice-pyuno, man, nano, netcdf, NetworkManager, okular, openSUSE-release, patterns-openSUSE-kde4-yast, patterns-openSUSE-yast2-basis, plasmoid-networkmanagement, plymouth, plymouth-branding-basedonopensuse, postgresql92, postgresql92-server, postgresql-init, python-gtk, python-kde4, python-qt4, python-xdg, soprano-backend-virtuoso, SUSEfirwall2, sysconfig, sysconfig-netconfig, sysconfig-network, syslog-ng, tryton, unoconv, vim, wireless-regdb, wireless-tools, x11-tools, xf86-video-modesetting, xorg-x11, xorg-x11-driver-input, xorg-x11-driver-video, xorg-x11-fonts, xorg-x11-server, yast2, yast2-branding-openSUSE, yast2-control-center-qt, yast2-firstboot, yast2-live-installer, yast2-network, yast2-online-update-frontend, yast2-sysconfig, yast2-theme-openSUSE, yast2-x11, zypper

Quick add...

Search for software

Search packages & patterns

Show: All repositories

Your appliance

To be installed (777) Selected (74) Banned (0) Recommended (868)
Navigation - Configuration

Default locale

- Language: English (US)
- Keyboard Layout: English (US)

Default time zone

- Region: Global
- Time Zone: UTC

Network

- Do not configure network
- Configure network during first boot
- Use NetworkManager to configure the network at run-time
- Discover network settings automatically (DHCP)
- Manually configure network

Note: Your appliance will always run DHCP in Testdrive.

Firewall

- Enable firewall
  - Open SSH port (22)
  - Open HTTP ports (80, 443)

Users and groups

<table>
<thead>
<tr>
<th>Login</th>
<th>UID (optional)</th>
<th>Password</th>
<th>Group</th>
<th>Home directory</th>
<th>Shell</th>
</tr>
</thead>
<tbody>
<tr>
<td>root</td>
<td>0</td>
<td>tryon</td>
<td>root</td>
<td>/root</td>
<td>/bin/bash</td>
</tr>
</tbody>
</table>
Navigation – Overlay files

Overlay files

Files added here will be copied into the appliance after packages are installed. Adding files is optional.

- **Single files** will be copied to the specified directory.
- **Archives** (tar, tar.gz, tar.bz2, .tgz, or .zip) will be extracted into the directory specified. Permissions and hierarchy will be preserved. Using archives is a great way to add many files at one time.

<table>
<thead>
<tr>
<th>Name</th>
<th>Directory</th>
<th>Extract</th>
<th>Size</th>
<th>Owner/Group</th>
<th>Permissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>gnuhealth24apkg</td>
<td>/home/gnuhealth/</td>
<td>✓</td>
<td>1.6 MB</td>
<td>gnuhealth / users</td>
<td>rwx-r-xr-x</td>
</tr>
<tr>
<td>gnuhealth_mar23t</td>
<td>/</td>
<td>✓</td>
<td>23.4 MB</td>
<td>postgres / users</td>
<td>rw-r--r--</td>
</tr>
<tr>
<td>LibreOffice22tar</td>
<td>/home/gnuhealth/</td>
<td>✓</td>
<td>200.1 MB</td>
<td>gnuhealth / users</td>
<td>rwx-r-xr-x</td>
</tr>
<tr>
<td>Tryton 1.5</td>
<td>/home/gnuhealth/</td>
<td>✓</td>
<td>1.2 MB</td>
<td>gnuhealth / users</td>
<td>rwx-r-xr-x</td>
</tr>
<tr>
<td>bootlocal</td>
<td>/etc/init.d/</td>
<td></td>
<td>419 Bytes</td>
<td>root / root</td>
<td>r-xr-xr-x</td>
</tr>
<tr>
<td>dolphinr</td>
<td>/etc/kde4/share/config/</td>
<td></td>
<td>921 Bytes</td>
<td>gnuhealth / users</td>
<td>rwx------</td>
</tr>
<tr>
<td>GNUHealth.desk</td>
<td>/home/gnuhealth/Desktop/</td>
<td></td>
<td>1.1 MB</td>
<td>gnuhealth / users</td>
<td>rwx-r-xr-x</td>
</tr>
<tr>
<td>kdeofficerr</td>
<td>/usr/kde4/share/config/</td>
<td></td>
<td>418 Bytes</td>
<td>gnuhealth / users</td>
<td>rwx------</td>
</tr>
<tr>
<td>Plymouth.conf</td>
<td>/etc/plymouth/</td>
<td></td>
<td>103 Bytes</td>
<td>root / root</td>
<td>rwx-r--r-x</td>
</tr>
<tr>
<td>SUSEfirewal2</td>
<td>/etc/sysconfig/</td>
<td></td>
<td>344 Bytes</td>
<td>root / root</td>
<td>rwx-r--r-x</td>
</tr>
<tr>
<td>SUSEtreeer</td>
<td>/usr/bin/</td>
<td></td>
<td>301 Bytes</td>
<td>root / root</td>
<td>rwx-r--r-x</td>
</tr>
<tr>
<td>tpmconf</td>
<td>/etc/</td>
<td></td>
<td>2.1 MB</td>
<td>root / users</td>
<td>rwx-r--r-x</td>
</tr>
</tbody>
</table>
**Navigation – Build**

GNU Health 2.4.1 / KDE 4 / 32bit
32-bit x86, based on openSUSE 13.1
850 MB downloaded, 2.5 GB uncompressed

Software information
3 patterns selected
71 packages selected
777 total packages

**Version 0.0.74**

Default format: USB Stick / Hard Disk Image

Additional formats:
- Preload USB Image
- Live CD / DVD (iso)
- Preload ISO (iso)
- VMware Workstation / VirtualBox (.vmdk)
- OVF Virtual Machine / ESXi (.ovf)
- Xen guest (.img)
- Hyper-V Virtual Hard Disk (.vhd)
- SUSE Cloud / OpenStack / KVM (.qcow2)

Read more about formats...

**Changelog**

Version 0.0.72

- SUSE Cloud / OpenStack / KVM (.qcow2) 860 MB
- Hyper-V Virtual Hard Disk (.vhd) 830 MB
- Xen guest (.img) 826 MB
- OVF Virtual Machine / ESXi (.ovf) 885 MB
SUSE Studio
Modify an existing system
GNU Health 2.4.1 / KDE 4 / 32bit

Published by Axel Braun  Based on openSUSE 13.1 32-bit x86  Homepage at http://health.gnu.org/

GNU Health is a free Health and Hospital Information System with the following functionality:
- Electronic Medical Record (EMR)
- Hospital Information System (HIS)
- Health Information System

This installable live-CD offers a ready-to-run version of GNU Health.


Note: First boot from USB Stick is slow, as some setup on the stick is made. Second boot and working is much faster, and WLAN works then as well!

For installation instructions, see https://en.wikibooks.org/wiki/GNU_Health/The_Live-CD

Download

Downloaded 461 times  Cloned 24 times

Physical  Virtual  Cloud

Release notes

Security update to Tryton Server 3.0.7
SUSE Studio
Testdrive
Information shown on the testdrive console and keystrokes sent to testdrive are not encrypted. For secure access to your testdrive, we suggest using SSH.

```
Booting `SNU Health 2.4.1 / KDE 4 / 32bit [ OEM ]'
Loading linux.vmx...
Loading initrd.vmx...
```

The highlighted entry will be executed automatically in 30s.
## Testdrive – Modified files

### Changed files: 87, ordered by: time

<table>
<thead>
<tr>
<th>Type</th>
<th>Path</th>
<th>Last changed</th>
<th>Size</th>
<th>Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>modify</td>
<td>/home/gnuhealth/config/tryton/3.0/tryton.conf</td>
<td>25 seconds ago</td>
<td>346 Bytes</td>
<td>View, Diff, Download</td>
</tr>
<tr>
<td>add</td>
<td>/home/gnuhealth/xsession-errors-0</td>
<td>29 seconds ago</td>
<td>30 KB</td>
<td>View, Download</td>
</tr>
<tr>
<td>modify</td>
<td>/home/gnuhealth/config/tryton/3.0/known_hosts</td>
<td>30 seconds ago</td>
<td>100 Bytes</td>
<td>View, Diff, Download</td>
</tr>
<tr>
<td>add</td>
<td>/home/gnuhealth/.config/Trolltech.conf</td>
<td>109 seconds ago</td>
<td>14 KB</td>
<td>View, Download</td>
</tr>
<tr>
<td>add</td>
<td>/home/gnuhealth/.kde4/share/config/SUSEgreperrc</td>
<td>115 seconds ago</td>
<td>30 Bytes</td>
<td>View, Download</td>
</tr>
<tr>
<td>add</td>
<td>/home/gnuhealth/.kde4/share/config/plasma-desktoprc</td>
<td>115 seconds ago</td>
<td>562 Bytes</td>
<td>View, Download</td>
</tr>
<tr>
<td>add</td>
<td>/home/gnuhealth/.kde4/share/config/khotkeysr</td>
<td>115 seconds ago</td>
<td>32 KB</td>
<td>View, Download</td>
</tr>
<tr>
<td>add</td>
<td>/home/gnuhealth/.kde4/share/config/gtkrc</td>
<td>118 seconds ago</td>
<td>1.4 KB</td>
<td>View, Download</td>
</tr>
<tr>
<td>add</td>
<td>/home/gnuhealth/.kde4/share/config/gtkrc-2.0</td>
<td>118 seconds ago</td>
<td>1.5 KB</td>
<td>View, Download</td>
</tr>
<tr>
<td>add</td>
<td>/home/gnuhealth/.kde4/share/config/kio_desktoprc</td>
<td>119 seconds ago</td>
<td>25 Bytes</td>
<td>View, Download</td>
</tr>
</tbody>
</table>
Testdrive – feed back into build

- Update your modified files
- Rebuild appliance

- Iterative process

- Result: Your own appliance!
GNU Health @ SUSE Studio

Test drive your appliance without any downloading.

Thank you!