

# Build your own Distro!

am Beispiel GNU Health

Axel Braun



Einführung

Das Projekt GNU Health

Das SUSE-Ökosystem

Navigation durch SUSE Studio

Basis-Funktionen

Ein existierendes System anpassen

Testdrive

# Axel Braun

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Dipl.-Ing, Dr.-Ing. Electrical engineering

Works as Consultant and Project Manager mostly for international companies

Lives in Düsseldorf/Germany

Member of openSUSE project – no commercial relationship to SUSE

Package maintainer for (among others) GNU Health and GNU Health Live CD

Supported education project: Favela Education (.org)

Supported medical project: GNU Health

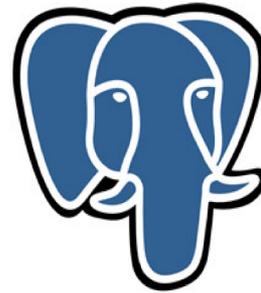
Einführung



# GNUHealth

## - About GNU Health

GNU Health is a Free/Libre project for health practitioners, health institutions and governments.



PostgreSQL



python™

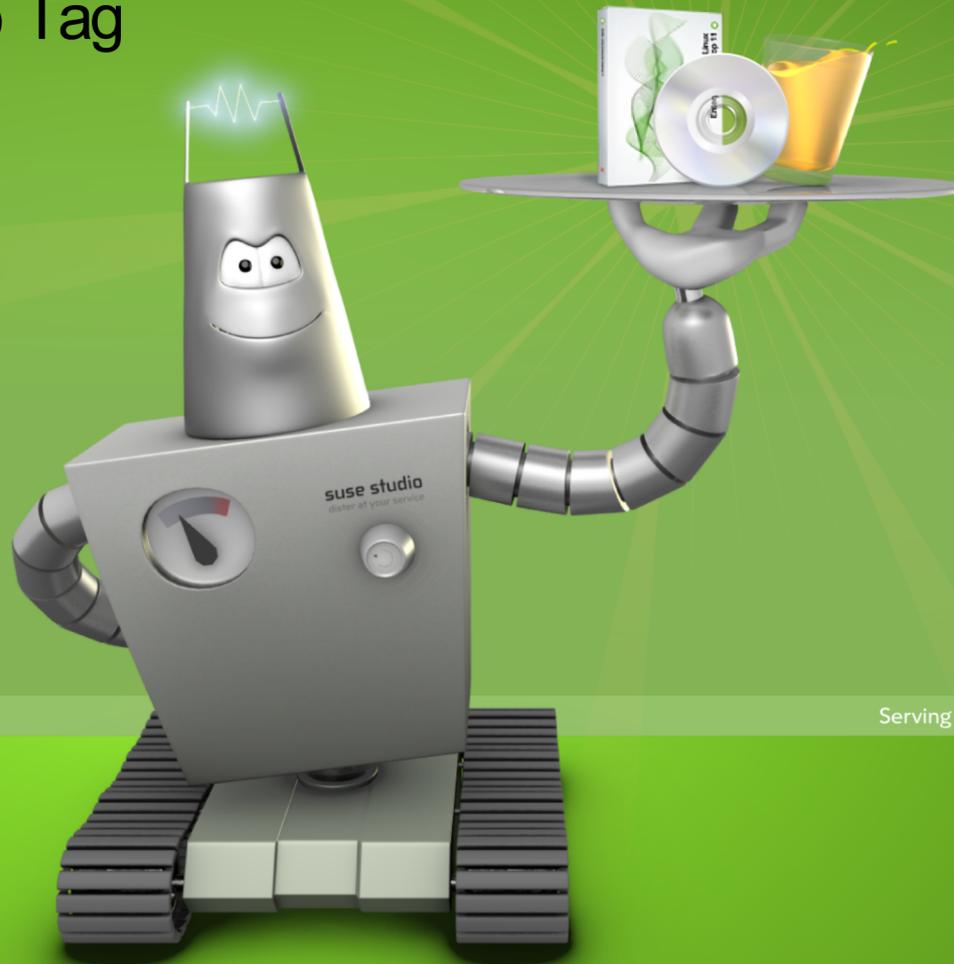


GnuPG



# SUSE Studio

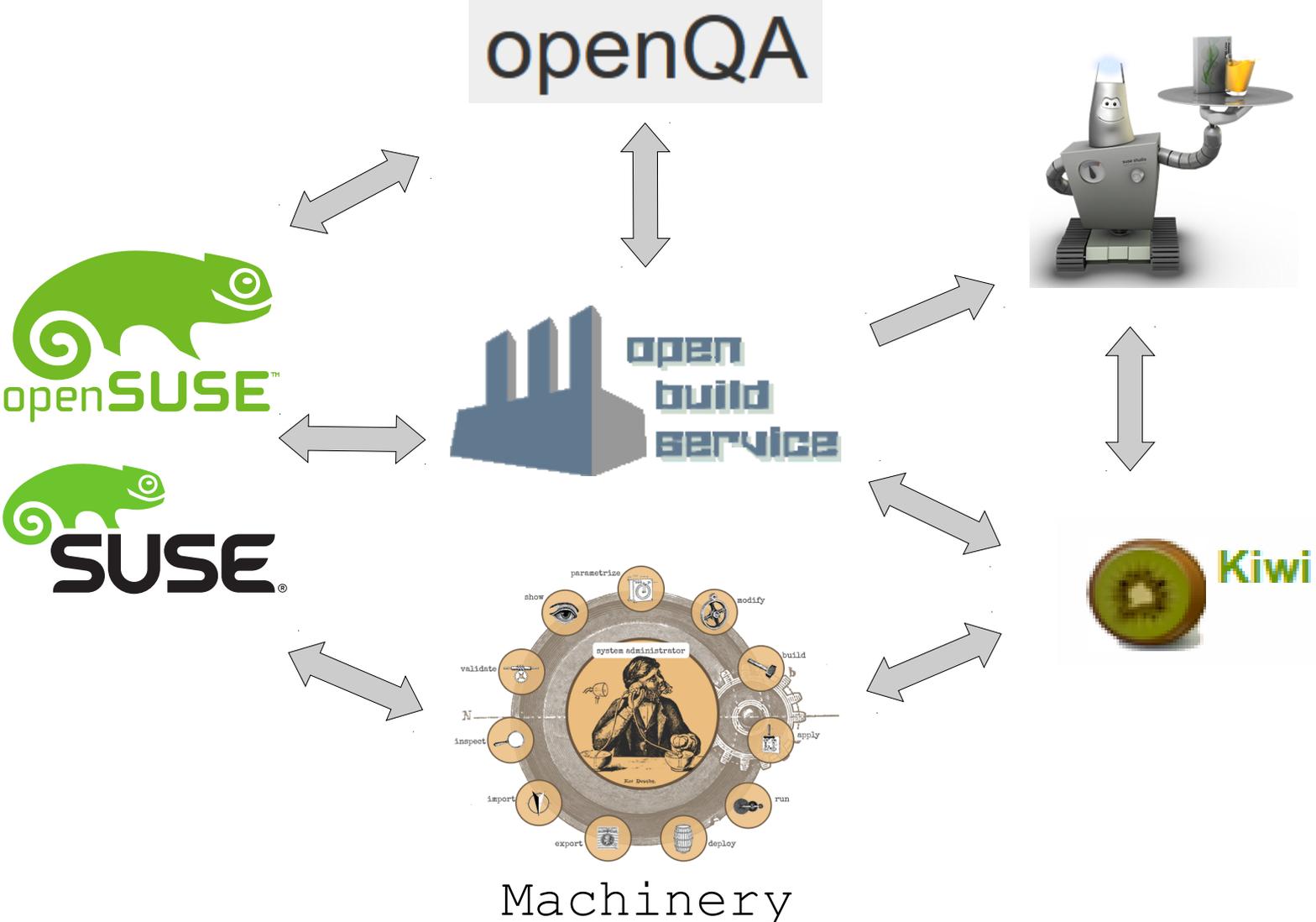
Mehr als 500.000 User  
~800 Builds pro Tag



suse  
studio™

Serving SUSE JeOS. Always fresh.

# SUSE Tools



# Navigation durch SUSE Studio

# Login

SUSE  
studio™



Sign in or create an account ✕

Novell

Google

YAHOO!

twitter

facebook

OpenID

Can't use any of the above? Get an account below to access this site

[Create new Novell account...](#)

[Get an OpenID...](#)

A revolutionary new way to create technology

# Navigation



**Axel Braun**

[Edit account](#) | [View public page](#)

## Actions

[+ Create new appliance...](#)

[Manage EC2...](#)

[Manage Azure Images...](#)

## Your appliances

### Shared on Gallery

openSUSE 13.2



**GNU Health 2.8 / KDE 4 / 64bit / UEFI**

45 builds, 51.6 GB  
64-bit x86

edited Tuesday, 18 August 2015

1 release, 96 downloads, 19 clones, 0 comments, Not rated.

openSUSE 13.1



**GNU Health 2.4.1 / KDE 4 / 32bit**

30 builds, 31.7 GB  
32-bit x86

edited Thursday, 20 August 2015

1 release, 451 downloads, 22 clones, 0 comments, Not rated.



**GNU Health 2.6 / KDE 4 / 32bit**

53 builds, 55.2 GB  
32-bit x86

edited Tuesday, 28 July 2015

1 release, 752 downloads, 35 clones, 0 comments



**GNU Health 2.8 / KDE 4 / 32bit**

63 builds, 70.4 GB  
32-bit x86

edited Wednesday, 19 August 2015

1 release, 927 downloads, 19 clones, 1 comment, Not rated.

## Recent activity

2015-08-16

There were 9 downloads and 1 clone of your published appliances.

[Gigi](#) cloned your [GNU Health 2.8 / KDE 4 / 64bit / UEFI](#)

2015-08-07

There were 6 downloads and 1 clone of your published appliances.

[Wadjie Bogne](#) cloned your [GNU Health 2.8 / KDE 4 / 64bit / UEFI](#)

## From the blog

[SUSE Linux Enterprise 11 SP 4 is out](#)  
SUSE Linux Enterprise 11 Service Pack 4 was released today. It contains lots ...

### Maintenance

We are planning maintenance on our Studio hardware on Thursday 28.05.2015 bet...

[Read more...](#)



[See what others have made in the Gallery!](#)

It's easy to download appliances others have shared in Gallery. You can even clone from shared appliances!

# Navigation - Gallery

SUSE studio Send feedback Gallery Studio Axel Braun Help Sign out



Popular **Newest** Staff picks Most Cloned Highest Rated Partners

 **ownCloud in a box**  
by Cornelius Schumacher

 **Cr OS Linux**  
by Chrome Linux

 **Microsoft® Windows 9 Bubble**  
by Dejan

 **KDE 4 Reloaded**  
by André Duffeck

 **miniSUSE**  
by hgj

 **Android Developer's Deskto...**  
by prizm

 **LAMP Server (32bit)**  
by James Tan

 **Windows 8 Lite**  
by Andrew

 **Excellent Samba4 Appliance**  
by Masim Vavai Sugianto

 **GNOME Reloaded**  
by André Duffeck

 **Upstream Cinnamon**  
by Nick

 **Smeegol**  
by Andrew Wafaa

 **LM-OS**  
by Lokesh Mure

 **GNOME 3.0**  
by Frederic Crozat

 **BrowserBox**  
by Jacob Rask

[View all popular...](#)

# SUSE Studio

## Basisfunktionen

# Navigation - Tabs

The screenshot shows the SUSE Studio web interface. At the top, there is a green navigation bar with the SUSE Studio logo on the left and links for 'Send feedback', 'Gallery', 'Home', 'Axel Braun', 'Help', and 'Sign out' on the right. Below this, a grey header bar displays the appliance name 'GNU Health 2.4.1 / KDE 4 / 32bit' and its specifications: '32-bit x86, based on openSUSE 13.1' and '850 MB download, 2.5 GB uncompressed'. A set of navigation tabs is visible, with 'Start' selected and other tabs including 'Software', 'Configuration', 'Files', 'Build', and 'Share'. On the left side, there is a 'Software information' section with statistics: '3 patterns selected', '71 packages selected', and '777 total packages'. A blue notification bar at the top right of the main content area says 'openSUSE 13.2 is now available' with an 'Upgrade' button. A large yellow speech bubble contains a 'Welcome to SUSE Studio!' message, explaining that users should use the tabs to configure their appliance and visit the 'Build' tab when ready. It also prompts the user to name their appliance. Below the message is a text input field containing 'GNU Health 2.4.1 / KDE 4 / 32bit'. To the right of the message is a cartoon robot character holding a wrench. At the bottom right, a blue link says 'Switch to the Software tab to continue >'. In the bottom left corner, there is a 'Take notes' button with a notepad icon.

SUSE studio

Send feedback Gallery Home Axel Braun Help Sign out

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

Start Software Configuration Files Build Share

Software information

3 patterns selected  
71 packages selected  
777 total packages

openSUSE 13.2 is now available Upgrade

**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 >

Take notes

# Navigation - Software

Software information

3 patterns selected  
71 packages selected  
777 total packages

## Software sources

[openSUSE 13.1 Updates](#), [openSUSE 13.1 OSS](#), [level:languages:python 13.1](#), [Application:ERP:Tryton:3.0 13.1](#)

 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](#), [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](#), [libiw30](#), [libreoffice-pyuno](#), [man](#), [nano](#), [netcfg](#), [net-tools](#), [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](#), [SuSEfirewall2](#), [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

Show: [All repositories](#)

### Your appliance



To be installed (777)



Selected (74)



Banned (0)



Recommended (868)

# Navigation - Konfiguration



GNU Health 2.4.1 / KDE 4 / 32bit

32-bit x86, based on openSUSE 13.1

850 MB download, 2.5 GB uncompressed

Start

Software

Configuration

Files

Build

Share

Software information

3 patterns selected  
71 packages selected  
777 total packages



General



Personalize



Startup



Server



Desktop



Appliance



Scripts

## Default locale

Language:   
Keyboard Layout:

## Default time zone

Region:   
Time Zone:

## 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

Login	UID (optional)	Password	Group	Home directory	Shell
root	0	<input type="text" value="tryton"/>	root	/root	/bin/bash

Take notes

# Navigation – Overlay files



GNU Health 2.4.1 / KDE 4 / 32bit

32-bit x86, based on openSUSE 13.1

850 MB download, 2.5 GB uncompressed

Start

Software

Configuration

Files

Build

Share

Software information

3 patterns selected  
71 packages selected  
777 total packages

## 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.

Name	Directory	Extract	Size	Owner/Group	Permissions
<input type="checkbox"/> gnuhealth24.sql.bz2	/home/gnuhealth/	<input checked="" type="checkbox"/>	1.6 MB	gnuhealth / users	rw-rw-rw-
<input type="checkbox"/> gnuhealth_mar23.tar.bz2	/	<input checked="" type="checkbox"/>	28.4 MB	postgres / users	rw-r--r--
<input type="checkbox"/> libreoffice.tar.bz2	/home/gnuhealth/	<input checked="" type="checkbox"/>	200.1 KB	gnuhealth / users	rw-r--r--
<input type="checkbox"/> Tryton.tar.gz	/home/gnuhealth/	<input checked="" type="checkbox"/>	1.2 KB	gnuhealth / users	rw-r--r--
<input type="checkbox"/> boot.local	/etc/init.d/		419 Bytes	root / root	rwxr-xr-x
<input type="checkbox"/> dolphinrc	/etc/skel/kde4/share/config/		821 Bytes	gnuhealth / users	rw-----
<input type="checkbox"/> GNUHealth.desktop	/home/gnuhealth/Desktop/		1.1 KB	gnuhealth / users	rwxr-xr-x
<input type="checkbox"/> kickoffrc	/etc/skel/kde4/share/config/		418 Bytes	gnuhealth / users	rw-----
<input type="checkbox"/> plymouthd.conf	/etc/plymouth/		103 Bytes	root / root	rw-r--r--
<input type="checkbox"/> SuSEfirewall2	/etc/sysconfig/		34 KB	root / root	rw-r--r--
<input type="checkbox"/> SUSEgreeter	/usr/bin/		30.1 KB	root / root	rwxr-xr-x
<input type="checkbox"/> trytond.conf	/etc/		2.1 KB	root / users	rw-r--r--

Take notes

# Navigation – Build



## GNU Health 2.4.1 / KDE 4 / 32bit

32-bit x86, based on openSUSE 13.1  
850 MB download, 2.5 GB uncompressed

### Software information

3 patterns selected  
71 packages selected  
777 total packages

Version

Default format:

Build

- 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...](#) [Configuration...](#)

### Version 0.0.72

SUSE Cloud / OpenStack / KVM (.qcow2)	890 MB	Testdrive	Download	View files
Hyper-V Virtual Hard Disk (.vhd)	830 MB	Testdrive	Download	View files
Xen guest (.img)	826 MB	Testdrive	Download	View files
OVF Virtual Machine / ESXi (.ovf)	885 MB	Testdrive	Download	View files

Take notes

# SUSE Studio

## Modifikation eines existierenden Systems

# Clone eines Systems

Create new appliance...



## 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.

Passwords: User gnuhealth: gnuhealth ; Demo-database: admin:gnusolidario

**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](https://en.wikibooks.org/wiki/GNU_Health/The_Live-CD)

0 comments

## Download

Downloaded 461 times Cloned 24 times



Physical



Virtual



Cloud

## Release notes

Security update to Tryton Server 3.0.7

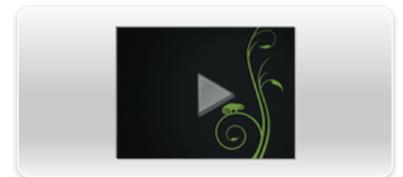
## Version 0.0.72

Updated 11 months ago

Edit appliance...

Clone appliance...

## Testdrive



## Tags

Hospital Information System, GNUHealth, Tryton, ERP



View all appliances published by [Axel Braun](#)

# SUSE Studio

## Testdrive

# 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. ✕

Ctrl-Alt-F1

Ctrl-Alt-F2

Ctrl-Alt-F3

Ctrl-Alt-F7

Alt-F1

Alt-F2

Ctrl-Alt-Del

Ctrl-Alt-Back

Keyboard layout:

German ▾

```
Booting `GNU Health 2.4.1 / KDE 4 / 32bit [ OEM ]`
```

```
Loading linux.vmx...  
Loading initrd.vmx...  
-
```

The highlighted entry will be executed automatically in 0s.

# Testdrive – Modified files

Exclude paths containing:  (leave empty to exclude nothing)

Include paths containing:  (leave empty to include everything)

Include change types:  Add  Modify  Chmod  Chown  Remove

[Refresh Changes](#)

**Note:** You may need to run **sync** in your testdrive for filesystem changes to appear here.

## Changed files: 87, ordered by: time

Page: 1 2 (items per page: 60 100)

Type	Path	Last changed	Size	Actions
<input type="checkbox"/> modify	/home/gnuhealth/.config/tryton/3.0/tryton.conf	25 seconds ago	346 Bytes	<a href="#">View</a> , <a href="#">Diff</a> , <a href="#">Download</a>
<input type="checkbox"/> add	/home/gnuhealth/.xsession-errors-:0	29 seconds ago	30.9 KB	<a href="#">View</a> , <a href="#">Download</a>
<input type="checkbox"/> modify	/home/gnuhealth/.config/tryton/3.0/known_hosts	30 seconds ago	100 Bytes	<a href="#">View</a> , <a href="#">Diff</a> , <a href="#">Download</a>
<input type="checkbox"/> add	/home/gnuhealth/.config/Trolltech.conf	109 seconds ago	14.4 KB	<a href="#">View</a> , <a href="#">Download</a>
<input type="checkbox"/> add	/home/gnuhealth/.kde4/share/config/SUSEgreeterrc	115 seconds ago	30 Bytes	<a href="#">View</a> , <a href="#">Download</a>
<input type="checkbox"/> add	/home/gnuhealth/.kde4/share/config/plasma-desktoprc	115 seconds ago	562 Bytes	<a href="#">View</a> , <a href="#">Download</a>
<input type="checkbox"/> add	/home/gnuhealth/.kde4/share/config/khotkeysrc	115 seconds ago	32.1 KB	<a href="#">View</a> , <a href="#">Download</a>
<input type="checkbox"/> add	/home/gnuhealth/.kde4/share/config/gtkrc	118 seconds ago	1.4 KB	<a href="#">View</a> , <a href="#">Download</a>
<input type="checkbox"/> add	/home/gnuhealth/.kde4/share/config/gtkrc-2.0	118 seconds ago	1.5 KB	<a href="#">View</a> , <a href="#">Download</a>
<input type="checkbox"/> add	/home/gnuhealth/.kde4/share/config/kio_desktoprc	119 seconds ago	25 Bytes	<a href="#">View</a> , <a href="#">Download</a>

# Testdrive – feed back into build

- Modifizierte Dateien in die Overlays übernehmen
- Neubau des Images
- Iterativ – so lange bis es passt

# Einstieg in KIWI

- Export der Kiwi-Quelle aus Studio
- Lokal bauen – umfangreiche Anpassungen möglich
- Import in OBS – automatisiertes Bauen

<https://doc.opensuse.org/projects/kiwi/doc/>



# SUSEStudio

- Webseite: [www.susestudio.com](http://www.susestudio.com)
- Mailing-Liste: [studio-users@suse.de](mailto:studio-users@suse.de)
- Foren:  
[susestudio.com/forum](http://susestudio.com/forum)  
[forums.opensuse.org/forumdisplay.php/807-SUSE-Studio](http://forums.opensuse.org/forumdisplay.php/807-SUSE-Studio)



**Thank you!**