

# Open Build Service als zentrale Entwicklungsumgebung

B1 Systems GmbH

<http://www.b1-systems.de>



# Open Build Service als zentrale Entwicklungsumgebung

- Vorstellung B1 Systems
- Open Build Service (OBS)
  - Geschichte
  - Features
  - Architektur
- OBS + Versionsverwaltungen
- OBS in einer Continuous Integration Umgebung

# Vorstellung B1 Systems

- gegründet 2004
- Anbieter von Komplettlösungen rund um Linux & Open Source
- national und international tätig
- über 60 Mitarbeiter
- Schwerpunkte:
  - Consulting
  - Support
  - Entwicklung
  - Training
  - Lösungen

bzgl. Open Build Service ist B1 Systems offizieller Partner für

- Consulting
- Customizing
- Support
- Schulungen

## Open Build Service

- SUSE interne Lösung zur RPM- und Distributionserstellung
- 24.01.2006 als openSUSE Build Service unter GPL verfügbar
- 26.05.2011 Umbenennung zu Open Build Service

Referenzinstallation: <http://build.opensuse.org>

- wohl größte OBS Installation
- für jedermann nutzbar
- Plattform für openSUSE

# Open Build Service

[Downloads](#)[Support](#)[Community](#)[Development](#)[Home](#)[openSUSE Build Service](#)[cschneemann](#) | [Home Project](#) | [Logout](#)

## Welcome to openSUSE Build Service

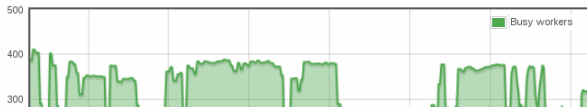
The openSUSE Build Service is the the public instance of the [Open Build Service \(OBS\)](#) used for development of the openSUSE distribution and to offer packages from same source for Fedora, Debian, Ubuntu, SUSE Linux Enterprise and other distributions..

Please find further details of this service on our [wiki pages](#)

This instance offers a special [package search interface](#). Users of any distribution can search their for built packages for their distribution. For developers it is an efficient place to build up groups and work together through its project model.

[Your Home](#)[All Projects](#)[Search](#)[New Project](#)[Status Monitor](#)

### System Status



### System Status

 [adrianSuSE](#) wrote 2 weeks ago

Added Ubuntu 13.04 and Debian 7.0 build targets

[adrianSuSE](#) wrote 2 weeks ago

OBS updated to version 2.4.1

[adrianSuSE](#) wrote 4 weeks ago

Fixed some build hosts (mostly hard disk failures)

[adrianSuSE](#) wrote 2 months ago

The instance got updated to OBS 2.4.0 RC code base.

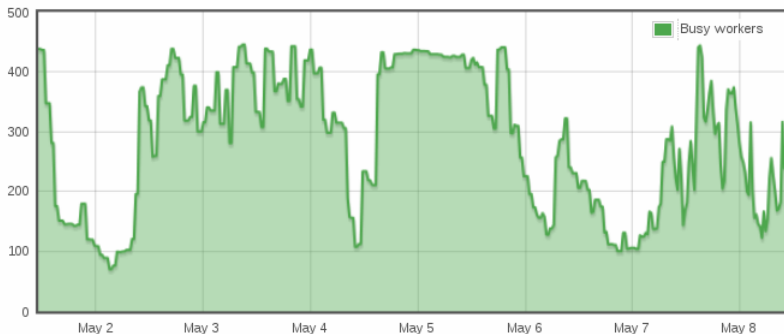
### Latest Updates

 [perl-AnyEvent-DBI](#) 3 min ago [home:sval...s:pascal](#) 9 min ago [libqt4](#) 16 min ago [...](#) 22 min ago



# Open Build Service

## System Status



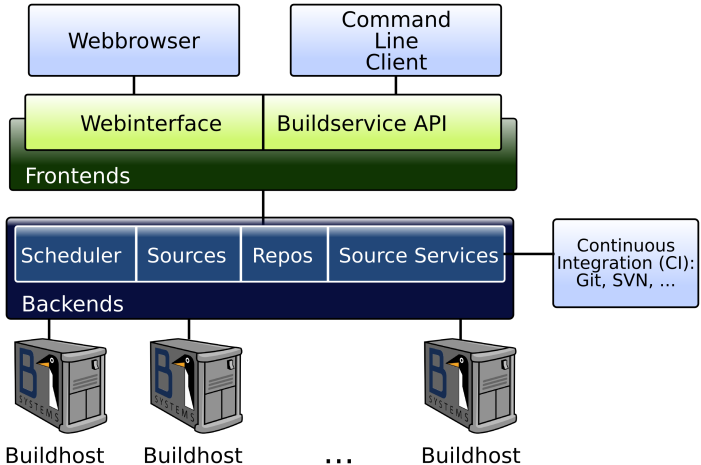
The above graphs show the number of active build jobs last week, currently 242 of 448 build hosts are busy building packages. At the moment 4422 packages are waiting on the different architectures.

openSUSE Build Service hosts **31573** projects, with **207735** packages, in **42921** repositories and is used by **35714** confirmed developers.


# Open Build Service - Features

- Bau von Installationspaketen für:
  - RPM basiert: openSUSE, SLES, RHEL, Fedora, CentOS, Scientific Linux
  - DEB basiert: Debian, Ubuntu
  - Arch Linux
  - Windows
- unterstützte Hardwareplattformen: i586, x86\_64, diverse ARM, Power,...
- automatische Auflösung von Paketabhängigkeiten
- Colaboration
- Erstellung von Medien (DVD-ISO, Xen/KVM,..)
- Maintenanceprozesse (Patchrelease)

# Open Build Service - Architektur



# Open Build Service - Projekte

 [Downloads](#) [Support](#) [Community](#) [Development](#) [Home](#)

openSUSE Build Service > Projects [cschneemann](#) | [Home Project](#) | [Logout](#)

## Main Projects

[openSUSE:Factory](#): The next openSUSE distribution

[openSUSE:Maintenance](#): The openSUSE Maintenance project

## Public Projects

Exclude user home projects

Show  entries

 [Create new project](#)

Search:

Name	Title
Base:build:branch	Branch of openSUSE:Factory
devel:openSUSE:Factory	Hosting devel packages for openSUSE:Factory
devel:openSUSE:Factory:legal-queue	Just a target project
devel:openSUSE:Factory:patch-license	
devel:openSUSE:Factory:rplint	
Java:Factory	Devel project of Java packages for openSUSE:Factory
openSUSE:Factory	The next openSUSE distribution
openSUSE:Factory:ARM	openSUSE Factory ARM
openSUSE:Factory:ARM:Contrib:Highbank	Calxeda Highbank
openSUSE:Factory:ARM:Contrib:RaspberryPi	RaspberryPi specific contributions
openSUSE:Factory:ARM:Contrib:RaspberryPi:kernel-3.6	
openSUSE:Factory:ARM:Contrib:RaspberryPi:kernel-3.7	




# Open Build Service - Pakete

## The next openSUSE distribution

Our bleeding edge distribution. This will become the next official openSUSE distribution. Alpha and Beta versions are mastered from this distribution.

Have a look at <http://en.opensuse.org/Portal:Factory> for more details.

 [Request role addition](#)  [Request deletion](#)

-  101 build errors
-  82 open requests
-  7 linking projects








## Packages (6479)

Show  entries

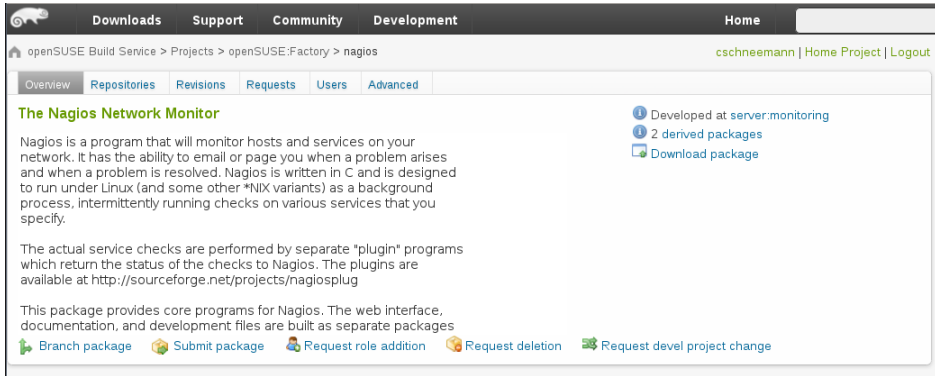
Search:

4ti2  
844-ksc-pcf  
Botan  
CharLS  
CodeAnalyst  
ColPack  
ConsoleKit  
ConsoleKit-doc  
Crystalcursors  
DirectFB  
ElectricFence  
FastCGI

## Build Results

images	 i586	disabled: 4 excluded: 6475
	 local	succeeded: 13 failed: 2 disabled: 3 excluded: 6461
	 x86_64	disabled: 5 excluded: 6474
ports	 armv5el	disabled: 6478 excluded: 1
	 armv7l	disabled: 6478 excluded: 1
	 ppc	disabled: 6478 excluded: 1
	 ppc64	disabled: 6478 excluded: 1

# Open Build Service - Paket



The screenshot shows the Open Build Service (OBS) web interface for the 'nagios' package. The navigation bar at the top includes 'Downloads', 'Support', 'Community', 'Development', and 'Home'. The breadcrumb trail indicates the path: 'openSUSE Build Service > Projects > openSUSE:Factory > nagios'. The user 'cschneemann' is logged in, with links for 'Home Project' and 'Logout'. The main content area has tabs for 'Overview', 'Repositories', 'Revisions', 'Requests', 'Users', and 'Advanced'. The title is 'The Nagios Network Monitor'. The description states that Nagios is a program for monitoring hosts and services on a network, written in C, and designed to run under Linux. It mentions that actual checks are performed by separate 'plugin' programs. At the bottom, there are several action links: 'Branch package', 'Submit package', 'Request role addition', 'Request deletion', and 'Request devel project change'. On the right side, there are three informational items: 'Developed at server:monitoring', '2 derived packages', and a 'Download package' button.

Downloads Support Community Development Home

openSUSE Build Service > Projects > openSUSE:Factory > nagios cschneemann | Home Project | Logout

Overview Repositories Revisions Requests Users Advanced

## The Nagios Network Monitor

Nagios is a program that will monitor hosts and services on your network. It has the ability to email or page you when a problem arises and when a problem is resolved. Nagios is written in C and is designed to run under Linux (and some other \*NIX variants) as a background process, intermittently running checks on various services that you specify.


The actual service checks are performed by separate "plugin" programs which return the status of the checks to Nagios. The plugins are available at <http://sourceforge.net/projects/nagiosplug>

This package provides core programs for Nagios. The web interface, documentation, and development files are built as separate packages

[Branch package](#) [Submit package](#) [Request role addition](#) [Request deletion](#) [Request devel project change](#)

- Developed at [server:monitoring](#)
- 2 derived packages
- [Download package](#)

# Open Build Service - Paket

 [Downloads](#) [Support](#) [Community](#) [Development](#) [Home](#)

[openSUSE Build Service](#) > [Projects](#) > [server:monitoring](#) > [nagios](#) [cschneemann](#) | [Home Project](#) | [Logout](#)

[Overview](#) [Repositories](#) [Revisions](#) [Requests](#) [Users](#) [Advanced](#)

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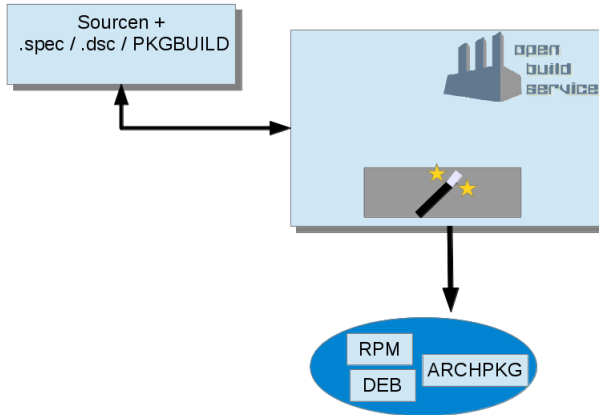
This package provide core programs for nagios. The web interface, documentation, and development files are built as separate packages

Authors:  
-----  
Ethan Galstad <[nagios@nagios.org](mailto:nagios@nagios.org)>

[Report Bug](#) [Branch package](#) [Submit package](#) [Edit description](#) [Delete package](#)

- 4 errors
- Devel package for [openSUSE:Factory](#)
- 9 derived packages
- Links to [openSUSE:Factory / nagios](#)
- Could have a [link diff](#)
- [Download package](#)

# Bestandteile für Paketbau

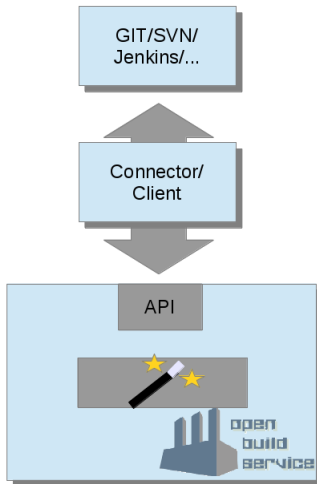




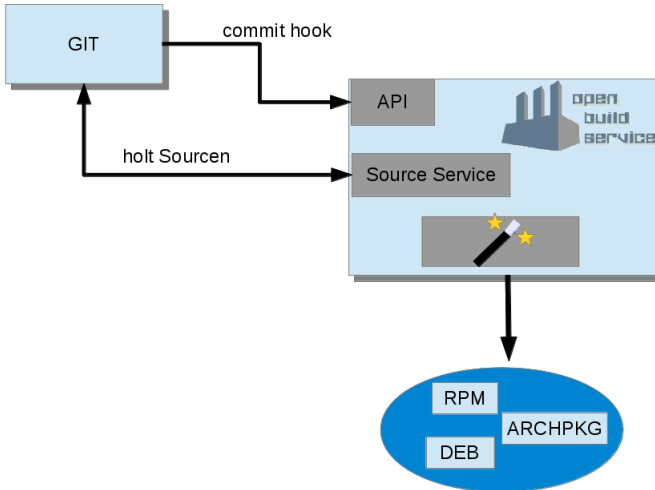
```
Tools/bar$ ls  
bar-2.3.tar.gz  
bar.spec
```

## Anbindung an Versionsverwaltung

# Connector



# OBS und Versionsverwaltung - Services



# Service Konfiguration

```
<services>
  <service name="tar_scm">
    <param name="url">https://git.example.de/foo.git</param>
    <param name="scm">git</param>
    <param name="revision">v0.23.5</param>
  </service>
  <service name="recompress">
    <param name="compression">gz</param>
    <param name="file">*foo*tar</param>
  </service>
  <service name="download_url">
    <param name="protocol">https</param>
    <param name="host">b1-systems.de</param>
    <param name="path">/master/foo.spec</param>
  </service>
</services>
```

```
Tools/foo$ ls  
_service
```


# Projektansicht Konsole

```
Tools/foo$ osc service run
Fetching from https://git.example.org/foo.git ...
Cloning into foo...
remote: Counting objects: 372, done.
remote: Compressing objects: 100% (189/189), done.
remote: Total 372 (delta 201), reused 346 (delta 175)
Receiving objects: 100% (372/372), 71.06 KiB, done.
Resolving deltas: 100% (201/201), done.
Note: checking out 'v0.23.5'.
HEAD is now at 3c2570a... small wordchange
v0.23.5 does not refer to a branch, not attempting git pull
Created foo-0.23.5.tar
Compressed _service:tar_scm:foo-0.23.5.tar to tar_scm:foo-0.23
Detected version as 0.23.5
```

```
Tools/foo$ ls
_service
_service:download_url:foo.spec
_service:download_url:foo.changes
_service:recompress:tar_scm:foo-0.23.5.tar.gz
```



# Projektansicht WebUI

Watchlist

[Open Build Service](#) > [Projects](#) > [Monitoring:Tools](#) > [agordamon](#)Admin | [Home Project](#) | [Logout](#)

[Overview](#) [Repositories](#) [Revisions](#) [Requests](#) [Users](#) [Advanced](#)






### Agordamon

Perl Module for generating and manipulating Nagiosconfiguration files.


[Branch package](#) [Submit package](#) [Edit description](#) [Delete package](#)

### Source Files


Show  entries Search:

Filename	Size	Changed	
<a href="#">_service</a>	856 Bytes	1 day ago	 
<a href="#">_service:download_url:perl-agordamon.changes</a>	143 Bytes	1 day ago	
<a href="#">_service:download_url:perl-agordamon.spec</a>	1.5 KB	1 day ago	
<a href="#">_service:recompress:tar_scm:agordamon-0.23.5.tar.gz</a>	20.8 KB	1 day ago	


Showing 1 to 4 of 4 entries ◀ Previous Next ▶



 [Add file](#)

### Revision 2 (latest revision is 2)

 [OBS Instance Superuser \(Admin\)](#) committed 1 day ago (revision 2)  
download spec and changes from github

[Show diff](#)

[Build Results](#)  [Rpmlint Results](#)

<a href="#">openSUSE_Factory</a>	 i586	succeeded
	 x86_64	succeeded

**Admin:**

- [Your Home](#)

**Locations**

- [Projects](#)

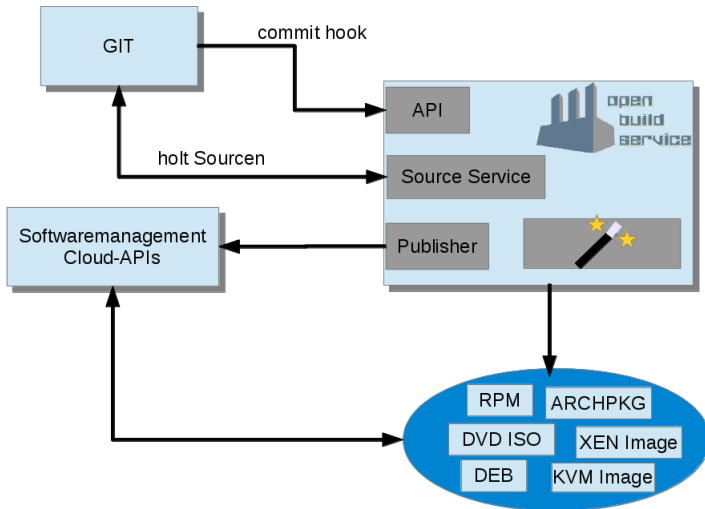
**Help**

- [Open Build Service](#)

**Contact**

- [Mailing List](#)

# OBS Integration



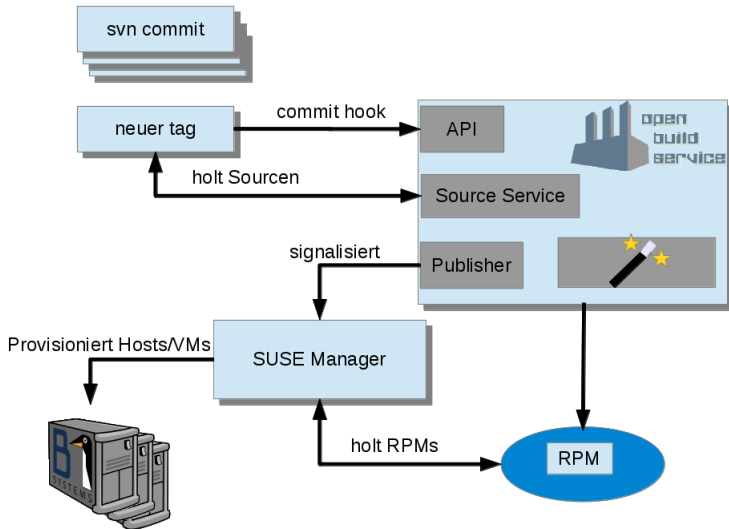
## Projektbeispiele

Beispiele von Kunden:

- 1 Subversion + OBS + SUSE Manager
- 2 GIT + OBS ohne Zugriff für Entwickler

- viele selbstentwickelte Scripte für Installations-/Administrationsprozesse
- Prozess für
  - Entwicklung
  - Tests
  - Deployment

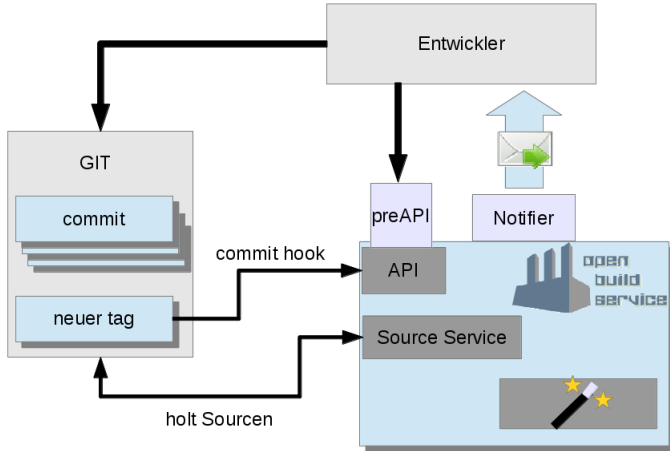
# SVN + OBS + SUMA



# GIT + OBS ohne Entwicklerzugriff

- eigene Software für Linux und Windows
- Zugriff auf OBS auf wenige beschränken
- Nutzung ohne Kenntnis von OBS
- Entwickler arbeiten nur mit git und Email

# GIT + OBS ohne Entwicklerzugriff





Fragen?