

WORLD OF SORTING TECHNOLOGY



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Can we fix it ?

Image removed due to copyright

- Het product dient herbouwbaar te zijn.
- De gebruikte afhankelijkheden naar andere producten dienen bekend te zijn.
- Het product dient gebouwd te worden op een geconditioneerde bouwomgeving.
- Het bouwen moet toegankelijk zijn voor niet SE specialisten.



Getting the Job Done

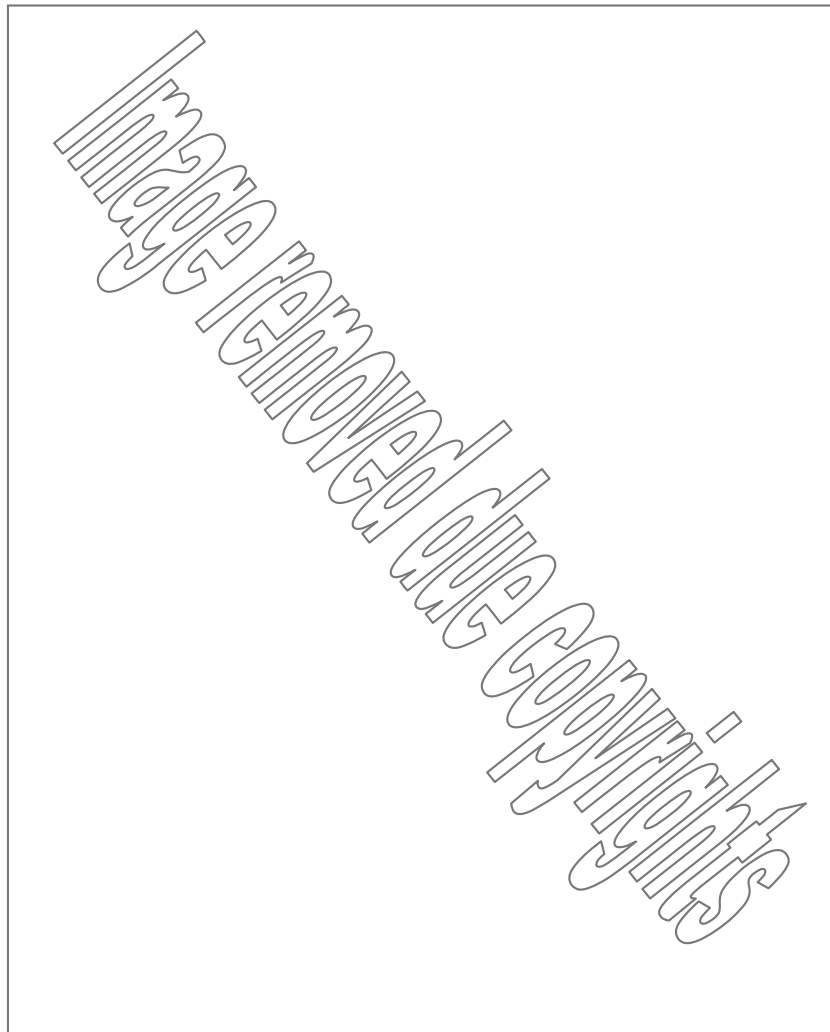
Image removed due to copyright

- Machine builder
- R&D 30 engineers, 15 SE
- Software Product Line
- 2M+ LOC
- 50+ Packages
- 3 Build platforms



Help is on the way

- Automatiseren





Tool Power

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- Vereisten aan de tool:



Tool Power – Vereisten: Algemeen

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- Meerdere buildplatforms
- Centrale UI voor beheer
- Release voor meerdere buildplatforms
- Overzicht van beschikbare versies en releases
- Overzicht actuele releases
- Dynamische bouw opties



Tool Power –Vereisten: Buildtypes

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- Release
- Special Release
- Test Drive
- Integration (Scoreboard)



Tool Power

Image removed due to copyright

- Welke Tool ?



Tool Power

Image removed due to copyright

- Welke Tool ?
- De doodoener:
 - Toegankelijkheid



Tool Power

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- Welke Tool ?
- Geen ondersteuning voor:
 - Meerdere bouwplatformen
 - Toegankelijkheid
- Conclusie:
Zelf implementeren



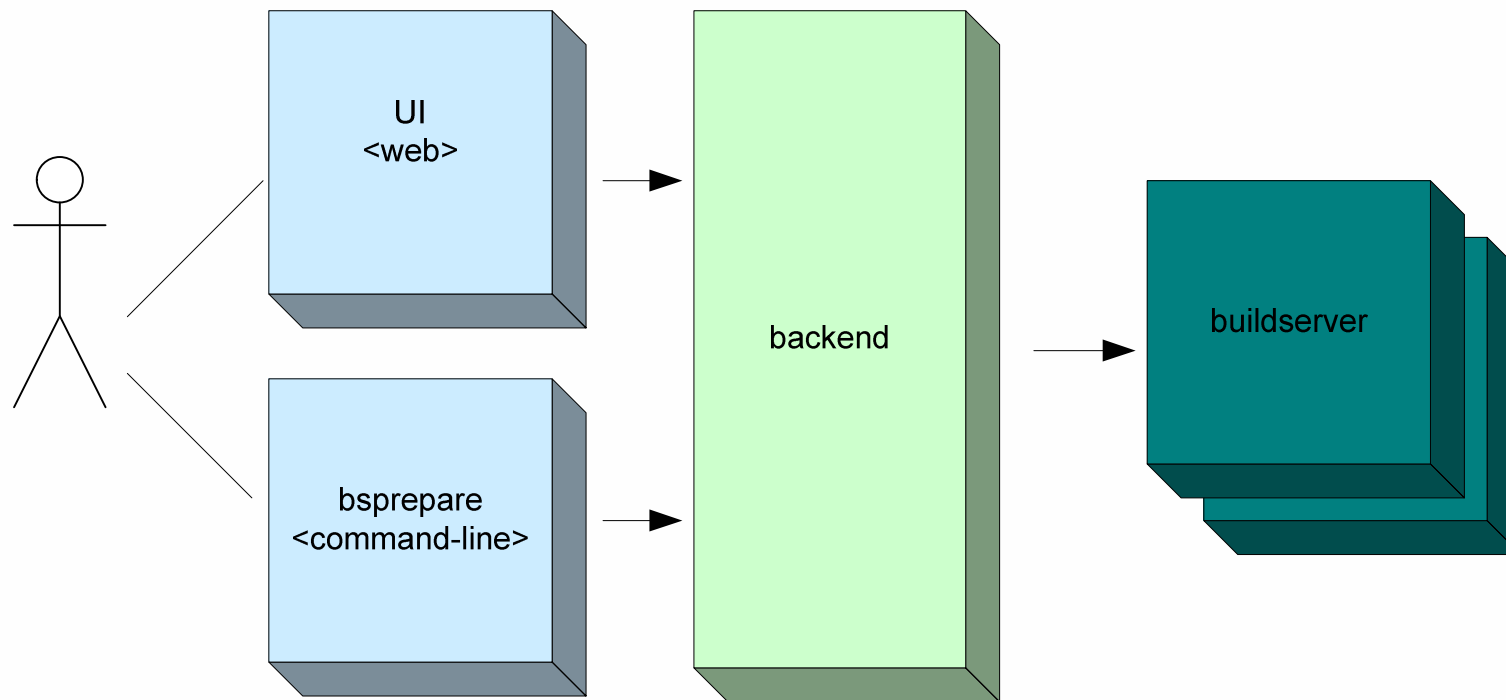
Bob the Builder



Example Session

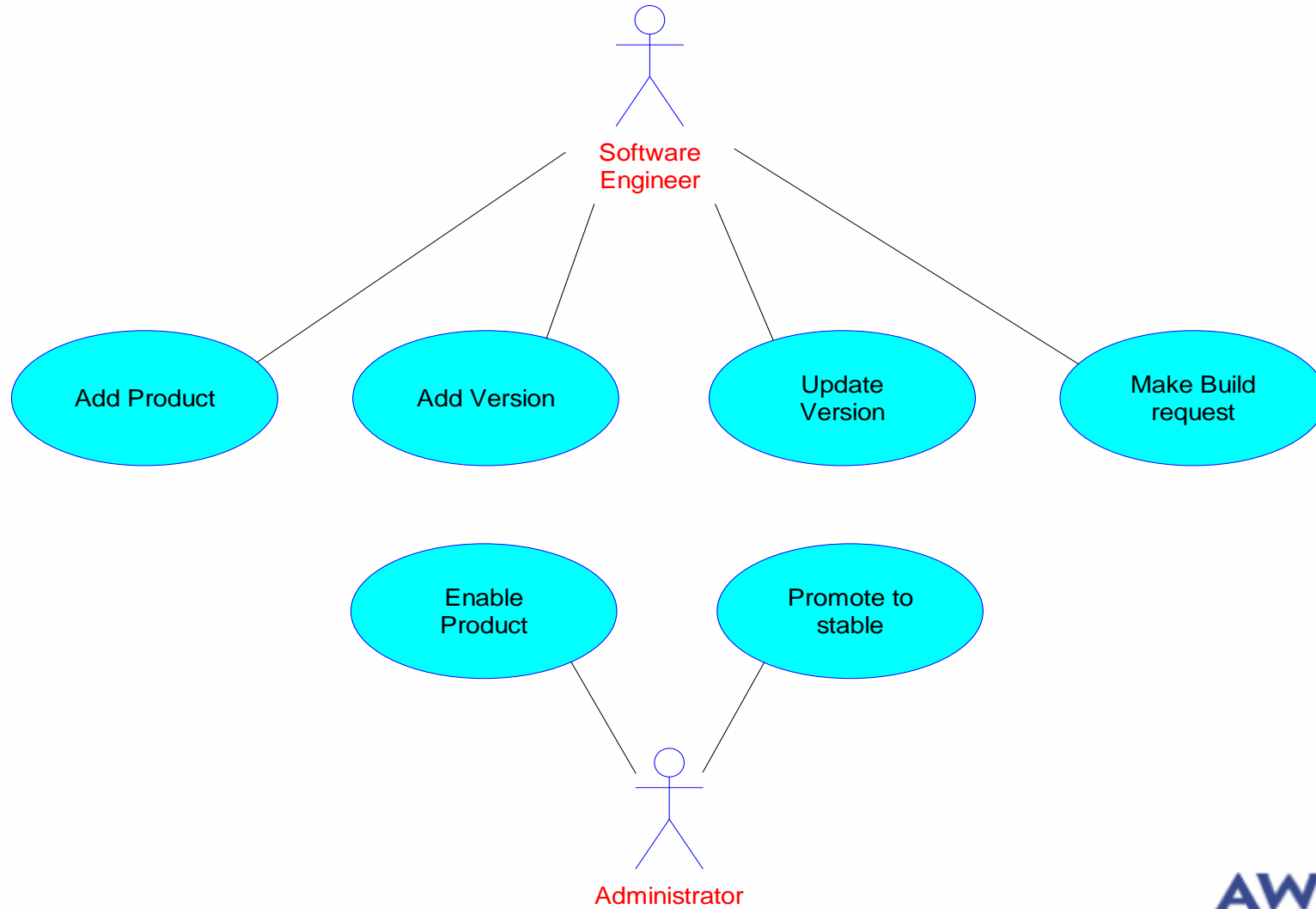


Buildsystem subsystems





Build Actions





Buildserver Status

Build System - Status Buildservers

zondag 28 januari 2007 21:44:42

[Queue](#) [Request](#) [Releases](#) [Product Config](#) [Buildserver status](#)

platform	host	last check for work	status
bcb6	wsbsbcb6	2007-01-28 21:43:22	idle
fc5	fc5020.aweta.local	2007-01-28 21:43:25	idle
rh9	wsbsrh9.aweta.local	2007-01-28 21:43:05	idle



Add a product

- Add a new product

```
[mvdweert@wslinrc04 gcp]$ bsprepare.py add -i gcp
```



Add a product

- Add a new product

```
[mvdweert@wslinrc04 gcp]$ bsprepare.py add -i gcp
```

- Inform the administrator



Add a product

- Add a new product

```
[mvdweert@wslinrc04 gcp]$ bsprepare.py add -i gcp
```

- Inform the administrator

Options for this product (ID = gcp)

Name :

Category: tarantula troodon

Platform: RedHat 9 Fedora Core 5 Borland Builder 6

Enable:

Location:

Current Stable Version: 2.14-1 (2006-12-05 11:08:03)

Doxygen inno KLOC Make rpm Scoreboard C++ Tests Valgrind zip

Platforms									
BCB6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
RH9	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Products									
awu	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
can-driver	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
gcp	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
treenodes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>





New Version

- Add a new version

```
[mvdweert@wslinrc04 gcp]$ bsprepare.py version
```



Build Request

Build System - Build Request Selection

[Queue](#) [Request](#) [Releases](#) [Product Config](#) [Buildserver status](#)

Category [all] v

Build	Products	Stable		Releases
<input type="checkbox"/>	pvcibrator	0.0.0-0	<input checked="" type="checkbox"/>	1.0.2-1 v
<input type="checkbox"/>	pvlash-firmware-ra	1.1.2-3		1.1.2-3 (2006-12-13 17:16:04) v
<input type="checkbox"/>	rpminclude	1.0.2-1		1.0.2-1 (2006-12-05 11:08:03) v
<input type="checkbox"/>	samplegrader-v2-app	2.0.0-2		2.0.0-2 (2006-12-05 11:08:03) v
<input type="checkbox"/>	sipic	0.0.0-0	<input checked="" type="checkbox"/>	1.1.0-0 v
<input type="checkbox"/>	tarantula	1.10.0-1		1.10.0-1 (2007-01-24 18:30:21) v
<input type="checkbox"/>	tarantula-aux	1.6.1-1		1.6.1-1 (2007-01-22 11:48:21) v
<input type="checkbox"/>	tarantula-legacy	2.6.0-1		2.6.0-1 (2007-01-12 17:03:24) v
<input type="checkbox"/>	tarantula-omc	1.3.0-1		1.3.0-1 (2007-01-17 20:42:15) v
<input type="checkbox"/>	treenodes	1.5.4-1		1.5.4-1 (2006-12-05 11:08:03) v
<input type="checkbox"/>	tcf	1.5.6-1		1.5.6-1 (2007-01-10 16:00:50) v
<input checked="" type="checkbox"/>	tsf-filters	1.9.5-2	<input checked="" type="checkbox"/>	1.9.5-1 (2006-12-05 13:05:08) v
<input type="checkbox"/>	videolayer	1.5.13-1	<input checked="" type="checkbox"/>	1.5.13-1 (2006-12-05 11:08:03) v
<input type="checkbox"/>	xml-utils	0.0.0-0	<input checked="" type="checkbox"/>	1.0.0-2 v

Platforms

RedHat 9

Fedora Core 5

Borland Builder 6

Build Types

Release

Special Release

Test Drive

Scoreboard

start the build





Build Queue

Build System - Build Queue
zondag 28 januari 2007 21:33:43

[Queue](#) [Request](#) [Releases](#) [Product Config](#) [Buildserver status](#)

0 items queued, 0 building. Queue filter:

build user	products	platforms	type	status
176 rkooning	pvcibrator 1.0.3-1	RedHat 9	Test Drive	2007-01-26 15:26:11 finished
175 pspiering	tsf-filters 2.0.0-3	Borland Builder 6,Fedora Core 5,RedHat 9	Release	2007-01-26 11:51:29 finished
174 pspiering	tsf-filters 2.0.0-3	Borland Builder 6,Fedora Core 5,RedHat 9	Test Drive	2007-01-24 18:03:18 finished
173 pspiering	tarantula 1.10.0-1	Borland Builder 6,Fedora Core 5,RedHat 9	Release	2007-01-24 17:58:47 finished
172 pspiering	tarantula 1.10.0-1	Borland Builder 6,Fedora Core 5,RedHat 9	Test Drive	2007-01-24 17:23:07 finished
171 pspiering	cld 0.0.24-1	RedHat 9	Test Drive	2007-01-22 11:31:23 finished
170 rpot	tarantula-aux 1.6.1-1	Borland Builder 6,Fedora Core 5,RedHat 9	Release	2007-01-22 11:10:23 finished
169 rpot	tarantula-aux 1.6.1-1	Borland Builder 6,Fedora Core 5,RedHat 9	Test Drive	2007-01-22 10:25:33 finished
168 pspiering	tsf 1.5.6-1	Borland Builder 6,Fedora Core 5,RedHat 9	Release	2007-01-19 14:20:01 finished
167 pspiering	tsf-filters 2.0.0-3	Borland Builder 6,Fedora Core 5,RedHat 9	Test Drive	2007-01-18 11:18:55 finished
166 mwinden	grader-v2-app 2.4.0-1 log 1.0.1-1	Fedora Core 5,RedHat 9	Release	2007-01-18 09:08:37 finished
165 mwinden	grader-v2-app 2.4.0-1 log 1.0.1-1	Fedora Core 5,RedHat 9	Test Drive	2007-01-18 09:06:10 finished
164 mwinden	ioeventmapper 1.2.1-1 tarantula-aux 1.6.0.1	Borland Builder 6,Fedora Core 5,RedHat 9	Release	2007-01-17 18:29:53 finished





Build Status

Build System - Status Build '64'
zondag 28 januari 2007 21:46:11

[Queue](#) [Request](#) [Releases](#) [Product Config](#) [Buildserver status](#)

build user type **status**
 64 rpot rel 2006-12-05 11:08:02 **finished** ([distributables](#))

Platforms:

Platform Status

fc5 **finished**

rh9 **finished**

Product Builds	Version
aweta-pci-candriver	2.0.1-3

Build Dependencies	Version
awu	1.3.2-1
can	2.0.2-2
makeinclude	1.0.0-0
rpminclude	1.0.0-0

Build Events:

date	severity	platform	event	msg
2006-12-05 11:08:03	info		queued	
2006-12-05 11:08:03	info	rh9	building	
2006-12-05 11:08:03	info		building	
2006-12-05 11:08:03	info	rh9	building	building_product_makeinclude
2006-12-05 11:08:03	info	rh9	building	building_product_rpminclude
2006-12-05 11:08:03	info	rh9	building	building_product_awu
2006-12-05 11:08:03	info	fc5	building	



Build Distributables

http://ntdlingo - Index of /~bs/distributables/64 - Mozilla Firefox

Index of /~bs/distributables/64

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory		-	
 aweta-pci-candriver-2.0.1-3_fc5.i386.rpm	03-Nov-2006 11:53	748K	
 aweta-pci-candriver-2.0.1-3_rh9.i386.rpm	03-Nov-2006 11:54	92K	
 scoreboard/	03-Nov-2006 11:53	-	

Apache/2.0.52 (Red Hat) Server at ntdlingo Port 80





Done 0.548s Loading ...



Build Distributables

http://ntdlingo - Index of /~bs/distributables/64 - Mozilla Firefox

Index of /~bs/distributables/64

<u>Name</u>	<u>Last modified</u>	<u>Size</u>	<u>Description</u>
 Parent Directory		-	
 aweta-pci-candriver-2.0.1-3_fc5.i386.rpm	03-Nov-2006 11:53	748K	
 aweta-pci-candriver-2.0.1-3_rh9.i386.rpm	03-Nov-2006 11:54	92K	
 scoreboard/	03-Nov-2006 11:53	-	

Apache/2.0.52 (Red Hat) Server at ntd

Done

aweta-foo-1.0.3-1_fc5.i386.rpm
aweta-foo-1.0.3-1_fc5_sr_142.i386.rpm
aweta-foo-1.0.3-1_fc5_mvdweert_176.i386.rpm
aweta-foo-1.0.3-1_fc5_sb_mvdweert_95.i386.rpm



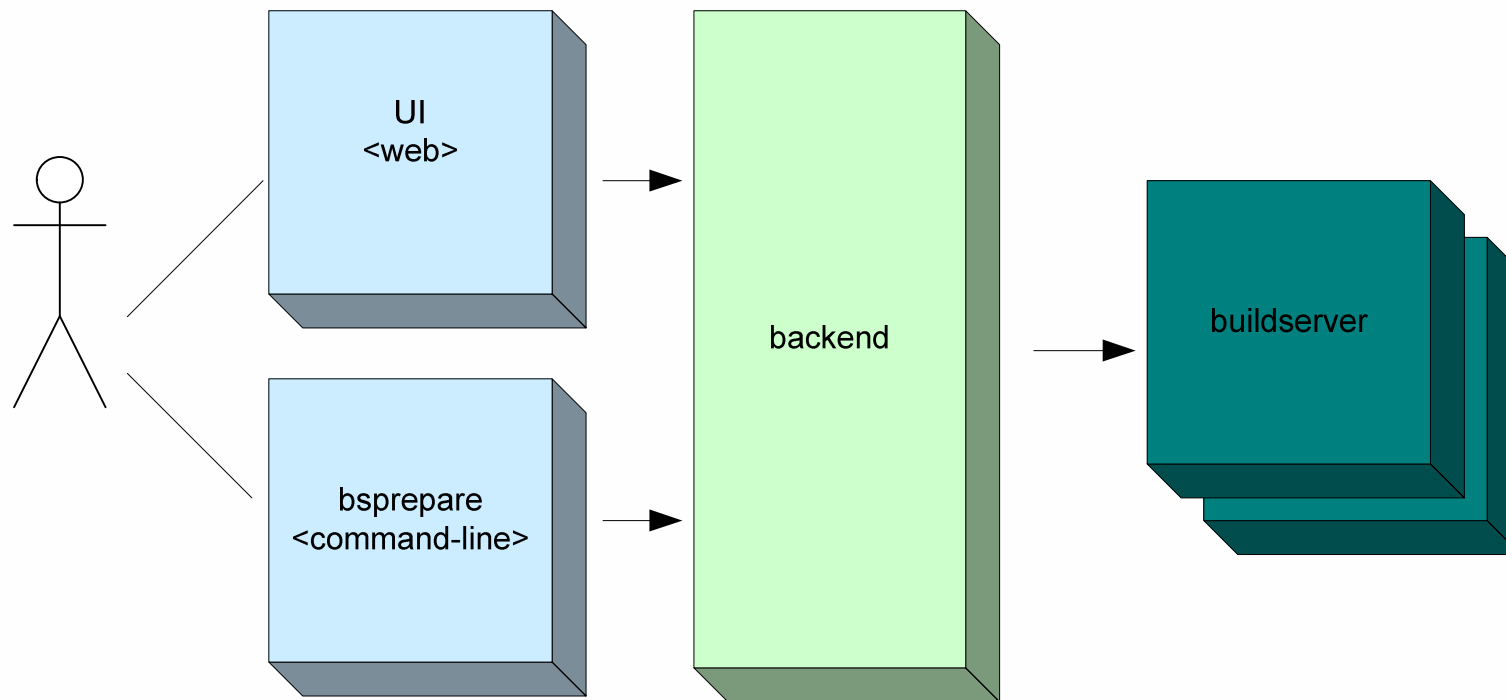
Bob the Builder



Implementation



Buildsystem subsystems





Te verwachten veranderingen

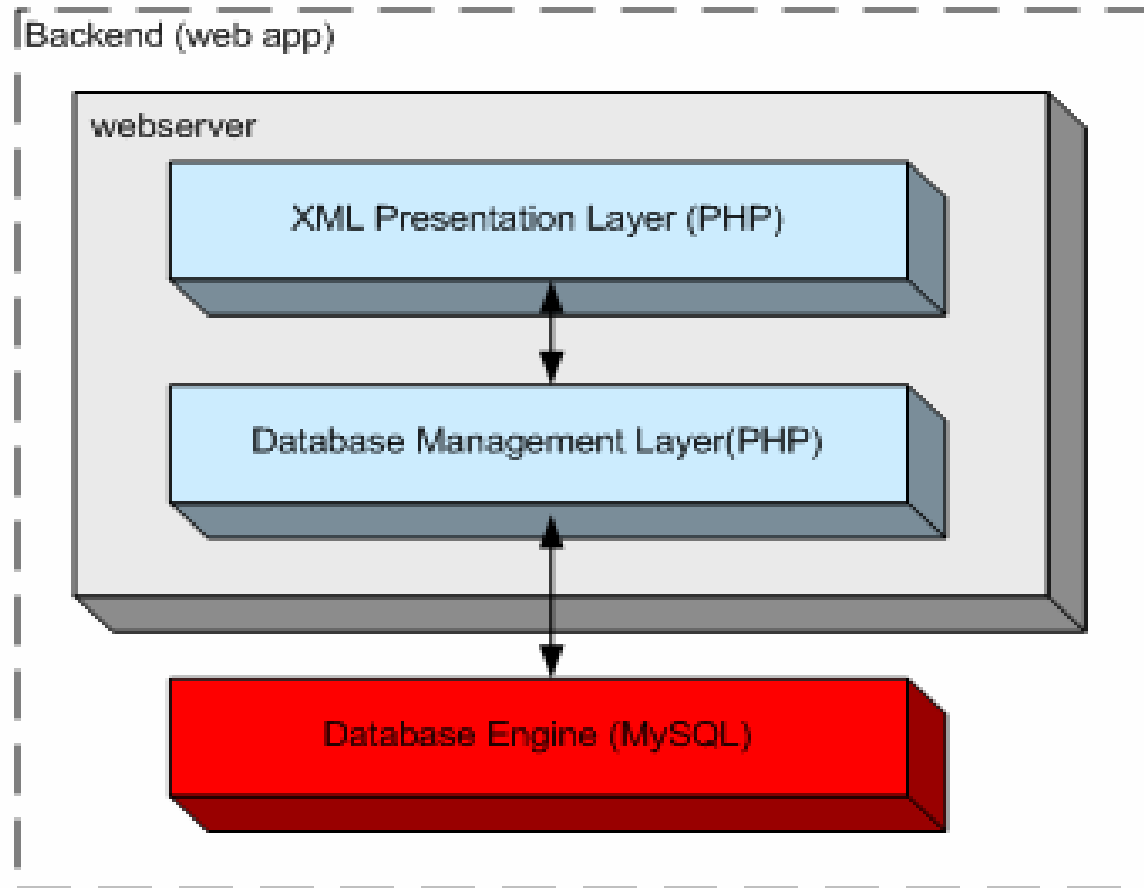
- Bouwopties
- Configuratie bouwplatform
- Bouwplatform
 - OS
 - Build Tooling
- Build selectie rules
- SCM clients

Buildserver
Buildserver
Buildserver

Front
Prepare, Buildserver

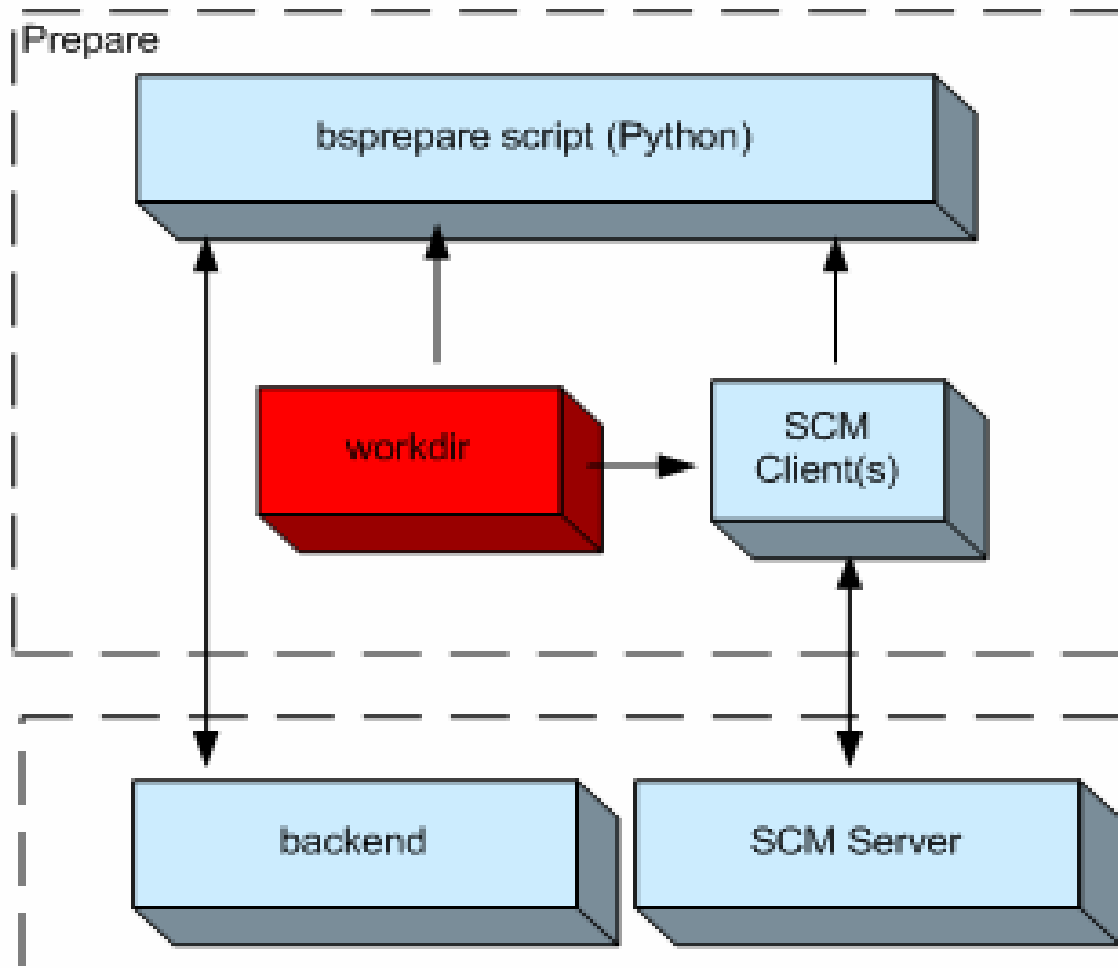


Backend



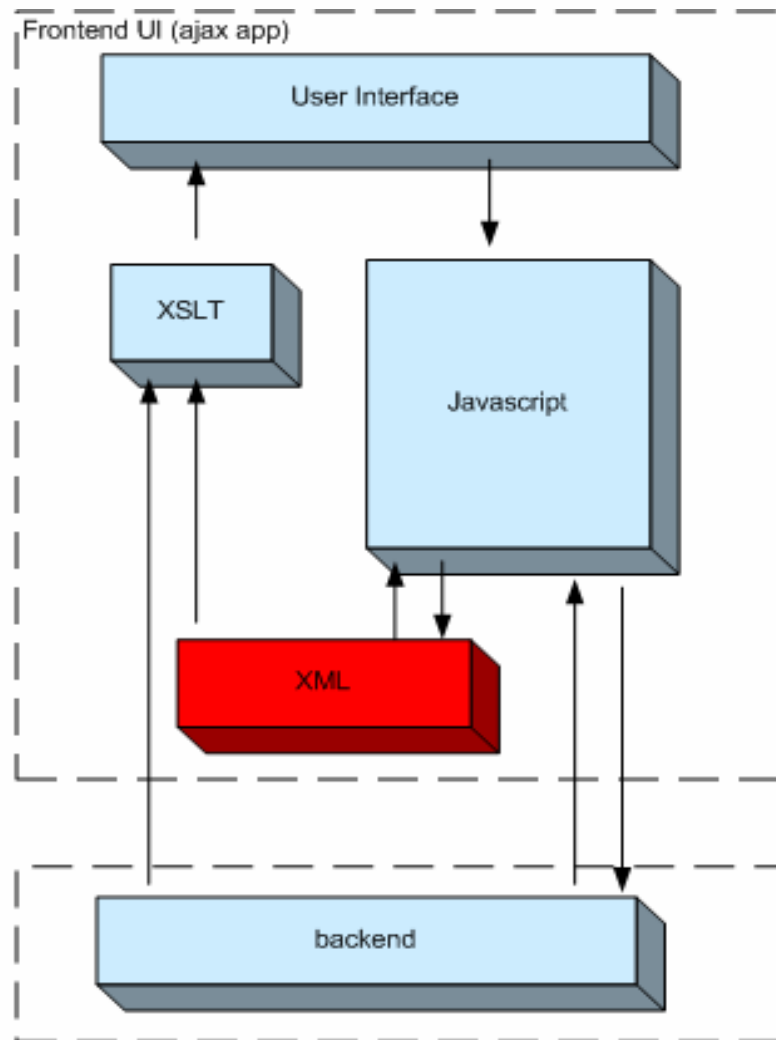


Buildsystem Prepare



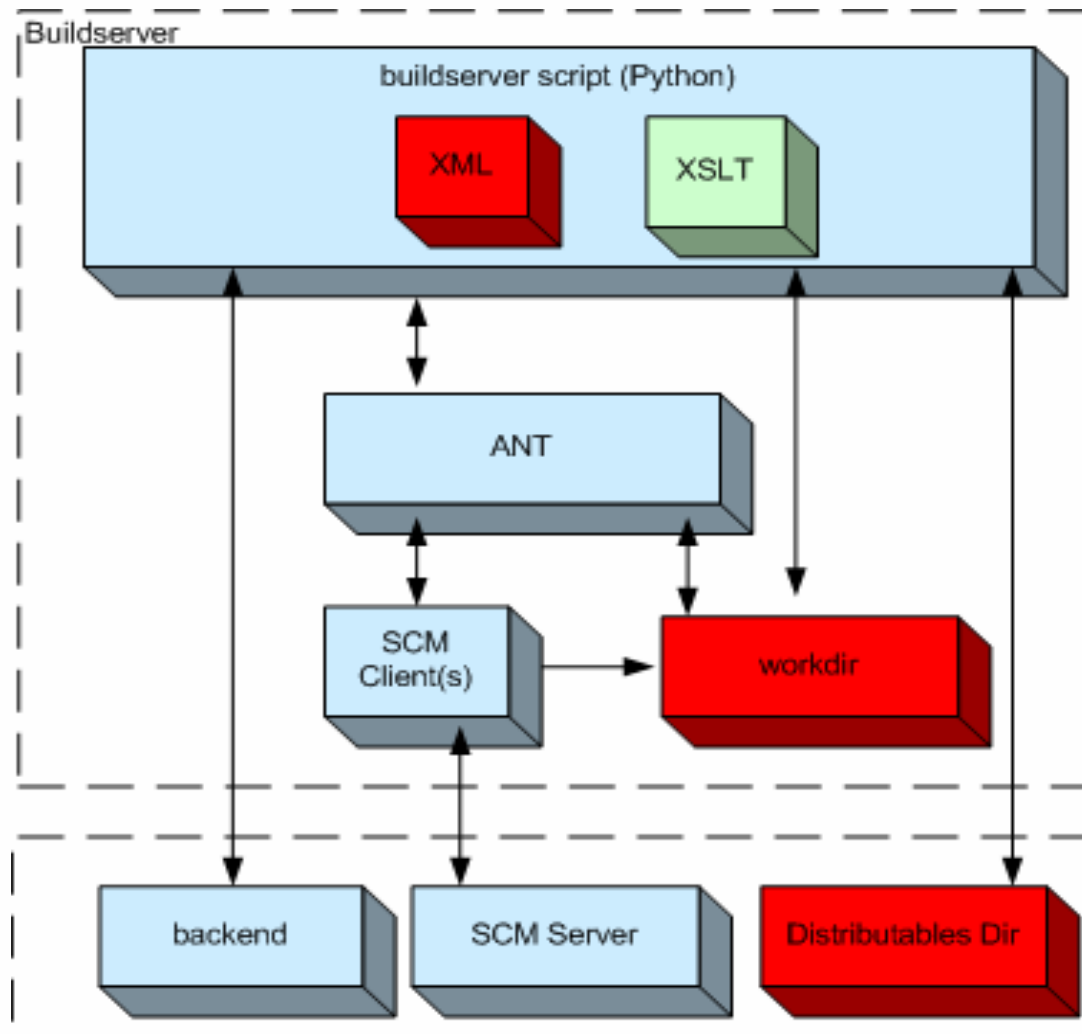


Buildsystem Frontend





Buildserver





Used Technologies/Tools

Back-end

- XML
- PHP
- MySQL
- Apache
- Zend

Front-end

- XML
- XSLT
- Javascript
- Ajax
- HTML
- CSS

Prepare

- XML
- XSLT
- Python

Buildserver

- XML
- XSLT
- ANT
- Python



Can we fix it ?

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- De gebruikte afhankelijkheden naar andere producten dienen bekend te zijn.
- Het product dient gebouwd te worden op een geconditioneerde bouwomgeving.
- Het bouwen moet toegankelijk zijn voor niet SE specialisten.





Yes We Can!

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Het bouwsysteem biedt:

- Zekerheden tot gebruikte code en omgeving
- Toegankelijk
- Dependencies van producten bekend
- Flexibele implementatie



Einde

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