

# Collaboration with a capital C

Mark Shuttleworth, founder of Ubuntu

**“Innovation is the key to long-term survival.”**

**“Since the emergence of the Internet,  
collaboration has become the key to  
profound, rapid innovation”**

# Anatomy of a free-software success

- Decision making capability
- Tools for collaboration
- Strong community values

# Tools for collaboration

- Mailing lists
- Bug trackers
- Project management tools
- Revision control systems
- Wiki's and websites

# The fruit of global collaboration

- Harnessing “**the wisdom of crowds**” produces rich and detailed repositories of expertise and knowledge
- Wikipedia – unprecedented repository of knowledge
- Linux - outgunning UNIX everywhere
- IMDB - authoritative film facts
- Cddb - detailed data on just about every CD printed

**“Collaboration between projects is just as important as collaboration within any given project.”**

# Where do we drop the ball?

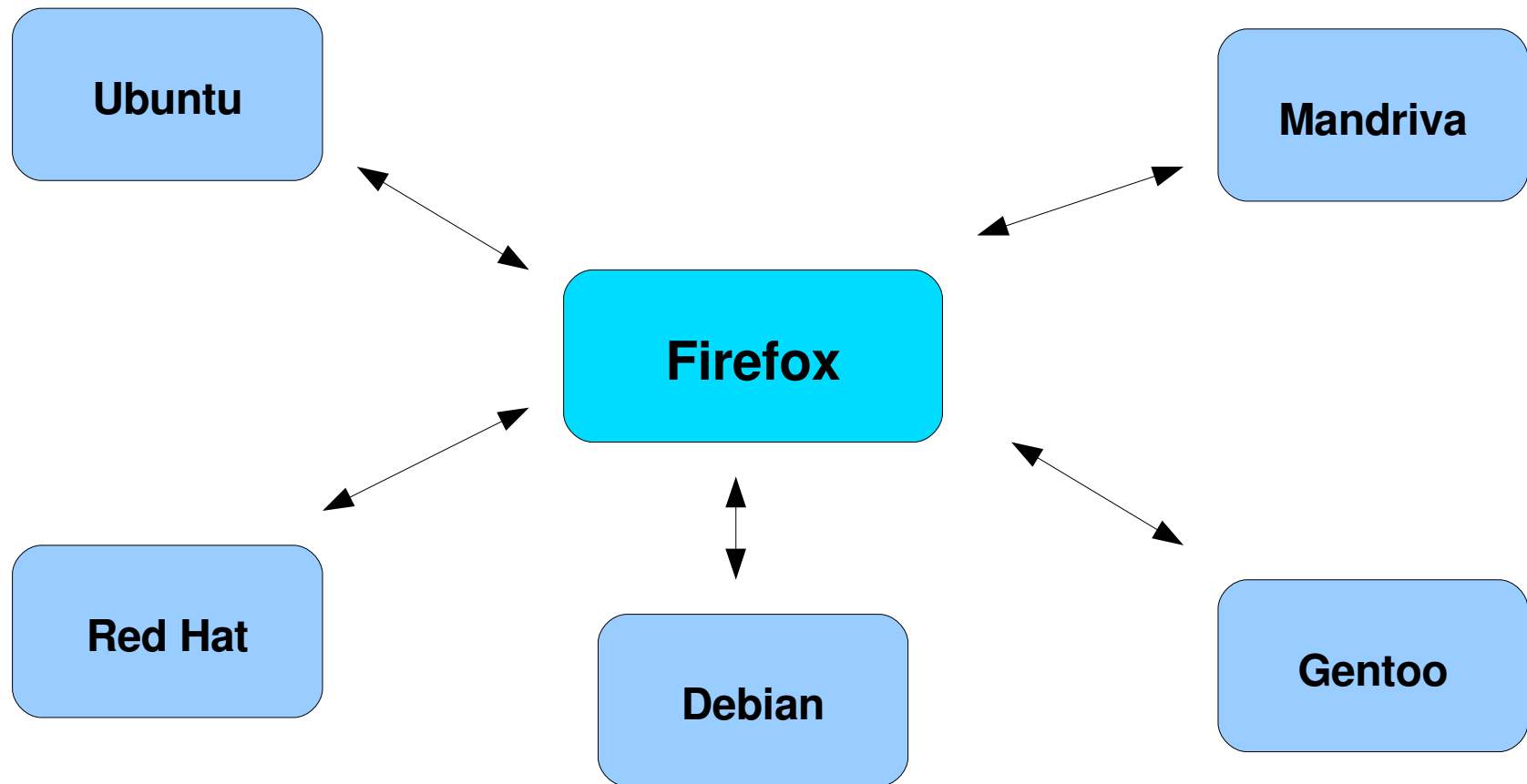
- Translations fail to move upstream
- Bugs filed in distribution or upstream
- Patches in distributions not sent upstream
- Planning changes in one project affect another
- Problems in shared libraries affect many projects



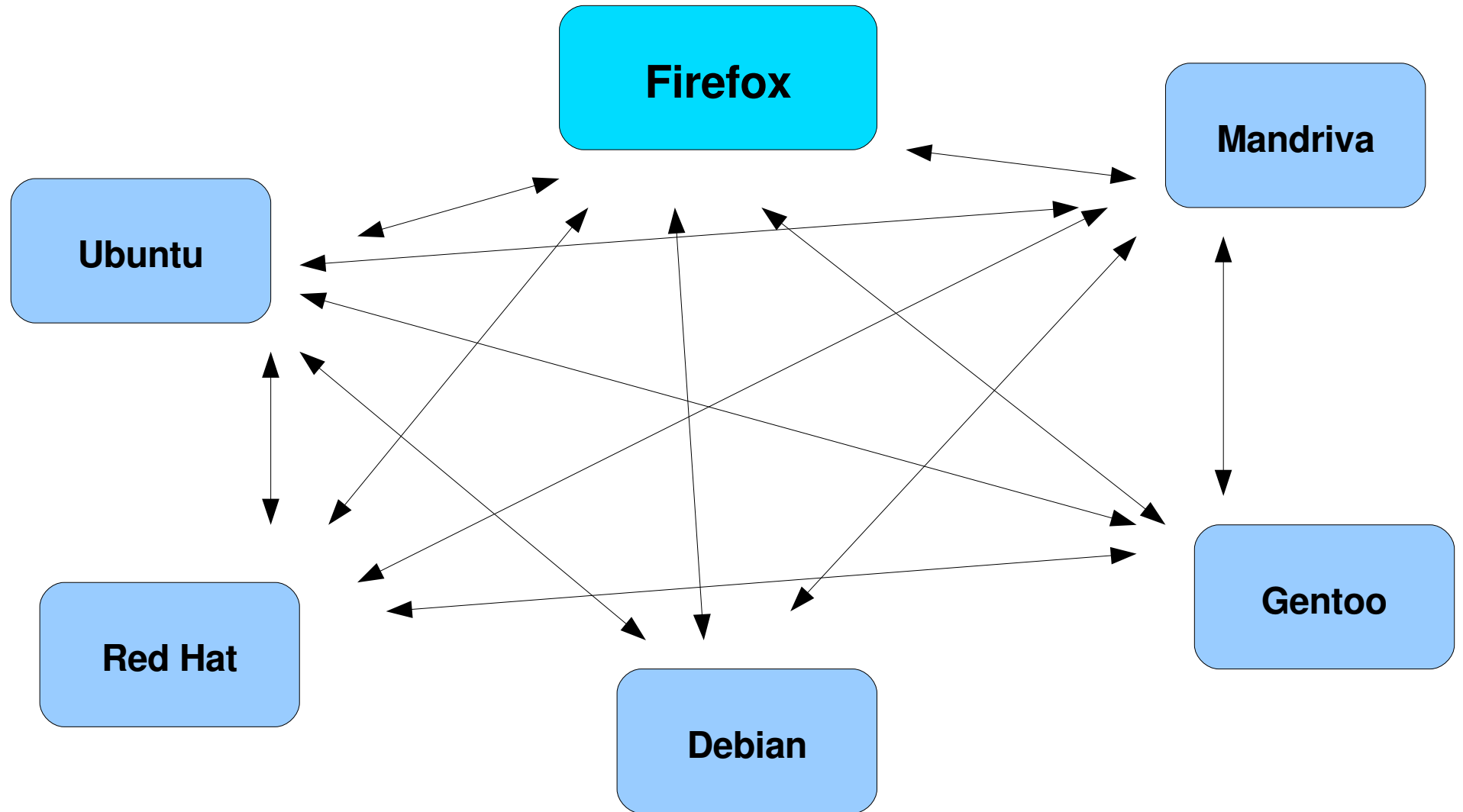
# Barriers to better collaboration

- Authentication!
- Community structure management
- Standards for data exchange
- API's for cross-project processes
- Language

# Traditional centralised collaboration



# Future peer-2-peer collaboration





**“Talent is evenly spread in the world”**

# Collaborating on translation

- Some projects do this well:
  - GNOME, GNU, Ubuntu, Mozilla, OpenOffice
- Barriers to easy collaboration:
  - Tools are obscure and crufty
  - Translation requires commit access
  - Multiple incompatible formats

# Translation statistics for gnome-2.14 release

[top](#) > [gnome-2.14](#) > compact info page | [full info page](#) | [top list](#) | [essential](#) last update: Fri Jan 27 06:46:39 2006

team name	trans.	%	fuzzy	%	untrans.	%	graph
<a href="#">Afrikaans (af)</a>	4985	14.57	1382	4.04	27858	81.40	
<a href="#">Amharic (am)</a>	3770	11.02	4042	11.81	26413	77.17	
<a href="#">Old English (ang)</a>	205	0.60	332	0.97	33690	98.43	
<a href="#">Arabic (ar)</a>	19964	58.32	8381	24.49	5884	17.19	
<a href="#">Assamese (as)</a>	213	0.62	5	0.01	34007	99.36	
<a href="#">Azerbaijani (az)</a>	19918	58.19	8021	23.43	6290	18.38	
<a href="#">Iranian Azerbaijani (az_IR)</a>	6	0.02	0	0.00	34219	99.98	
<a href="#">Belarusian (be)</a>	19290	56.36	3046	8.90	11893	34.75	
<a href="#">Bulgarian (bg)</a>	33706	98.48	372	1.09	149	0.44	
<a href="#">Bengali (bn)</a>	26044	76.09	4893	14.29	3292	9.62	
<a href="#">Breton (br)</a>	304	0.89	81	0.24	33840	98.88	
<a href="#">Bosnian (bs)</a>	16061	46.92	6718	19.63	11448	33.45	
<a href="#">Catalan (ca)</a>	32827	95.90	773	2.26	629	1.84	
<a href="#">Czech (cs)</a>	31944	93.32	1366	3.99	919	2.68	
<a href="#">Welsh (cy)</a>	28804	84.15	1798	5.25	3627	10.60	
<a href="#">Danish (da)</a>	30837	90.09	1761	5.14	1631	4.76	
<a href="#">German (de)</a>	31763	92.80	1549	4.53	917	2.68	
<a href="#">Greek (el)</a>	32677	95.47	676	1.97	876	2.56	
<a href="#">Australian English (en_AU)</a>	58	0.17	1021	2.98	33146	96.85	
<a href="#">Canadian English (en_CA)</a>	34218	99.97	8	0.02	1	0.00	



User:  Password:   [Register](#) | [Login help](#)

Projects > l10n

Project tools	Language	Code MS	MS	Iso-code	Symbolic	Environment Variable	N-L	Responsible person	St
		Locale ID	Locale ID (hex)						
· Project home	Comment language	00	n/a	n/a	n/a	n/a	n/a	n/a	n/a
· Membership	L10N-Framework	99	n/a	n/a	ISO_CODE	extern			
· Announcements	Afrikaans	27	1078	436	af	afrikaans	RES_AFRIK	<a href="http://www.translate.org.za">http://www.translate.org.za</a>	Dwayne Bailey
· Mailing lists	Amharic		1118	45E	am				Daniel Yacob
· Documents & files	Arabic	96	1025	401	ar	arabic	RES_ARAB	<a href="http://ar.openoffice.org/">http://ar.openoffice.org/</a>	Ossama Khayat
· Version control	Azerbaijani		1068	42C	az			<a href="http://az.openoffice.org/">http://az.openoffice.org/</a>	Emin Huseynov
· Issue tracker	Belarusian		1059	423	be				Yury Tarasievich
<b>Search</b>	Bulgarian	41	1026	402	bg	bulgarian	RES_BUL	<a href="http://bg.openoffice.org/">http://bg.openoffice.org/</a>	Hristo Simeonov Hrsitov
<input type="text" value="This project"/> <input type="button" value="Go"/>	Bengali (Bangladesh)		2117	845	bn-BD			<a href="http://bn.openoffice.org/">http://bn.openoffice.org/</a>	Jamil Ahmed
<a href="#">Advanced search</a>	Bengali (India)		1093	445	bn-IN			<a href="http://bn.openoffice.org/">http://bn.openoffice.org/</a>	Savamindu Dasgupta
<a href="#">Google search</a>	Breton				br	breton	RES_BRETON		Association KAD-Korvigelloù An Drouizig
<b>How do I...</b>	Bosnian	59	5146	141A	bs-BA	bosnian	RES_BOSNIAN		Vedran Ljubovic
· Sitemap	Catalan	37	1027	403	ca	catalan	RES_CAT	<a href="http://ca.openoffice.org/">http://ca.openoffice.org/</a>	Jesús Corrius
· FAQ	Czech	42	1029	405	cs	czech	RES_CZECH	<a href="http://cs.openoffice.org/">http://cs.openoffice.org/</a>	Pavel Janůk
· Get help?	Welsh	53	1106	452	cy	welsh	RES_WELSH	<a href="http://cy.openoffice.org/">http://cy.openoffice.org/</a>	David Chan
	Danish	45	1030	406	da	danish	RES_DAN	<a href="http://da.openoffice.org/">http://da.openoffice.org/</a>	Søren Thing Pedersen
	German	49	1031	407	de	german	RES_GER	<a href="http://de.openoffice.org/">http://de.openoffice.org/</a>	Andre Schnabel / Sun
	Dzongkha	98	2129	851	dz	dzongkha	RES_DZONGKHA		Pema Gevleg



# Template "silva" in Silva trunk

[Overview](#)
[Code](#)
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[Blueprints](#)
[Translations](#)
[Answers](#)

## Actions

- > [Overview](#)
- > [Upload a file](#)
- > [Download translations](#)
- > [Change details](#)
- > [Administer](#)

[Template details](#)
[Translation of](#)
[Related templates](#)
[Your preferred languages](#)

## Translation status of "silva"

Most of these strings are from the front end UI of silva, targeted at content managers and editors. If you would like to have a language added, or have any other questions, please send a mail to eric at infrae.com. We're changing from an entirely open structure to a team based translation, so that we have a little more overview over who is helping us out. Just apply for membership, if you'd like to help out.



Language	Todo	Status -	Last Edited	By
Dutch	8	<div style="width: 100%; height: 10px; background-color: green;"></div>	2007-04-03	<a href="#">thisfred</a>
German	16	<div style="width: 100%; height: 10px; background-color: green;"></div>	2007-02-22	<a href="#">Samuel Schlupe</a>
French	46	<div style="width: 100%; height: 10px; background-color: green;"></div>	2007-02-16	<a href="#">thisfred</a>
Chinese (Taiwan)	49	<div style="width: 100%; height: 10px; background-color: green;"></div>	2006-08-02	<a href="#">Formichelle</a>
Hebrew	736	<div style="width: 100%; height: 10px; background-color: red;"></div>	2005-10-14	<a href="#">Ofer Weiglass</a>
Japanese	914	<div style="width: 100%; height: 10px; background-color: red;"></div>	2006-09-15	<a href="#">palace</a>
Finnish	967	<div style="width: 100%; height: 10px; background-color: red;"></div>	2007-02-07	<a href="#">Tuomas Tonteri</a>
Chinese (China)	990	<div style="width: 100%; height: 10px; background-color: red;"></div>	2005-10-10	<a href="#">thisfred</a>
Portuguese (Brazil)	997	<div style="width: 100%; height: 10px; background-color: red;"></div>	2006-06-30	<a href="#">Paulino Michelazzo</a>
Spanish	1007	<div style="width: 100%; height: 10px; background-color: red;"></div>	2007-02-07	<a href="#">Gonzalo L. Campos Medina</a>
Russian	1016	<div style="width: 100%; height: 10px; background-color: red;"></div>	2006-06-30	<a href="#">Yura Zhuykov</a>
Arabic	1024	<div style="width: 100%; height: 10px; background-color: red;"></div>	2006-06-30	<a href="#">bamuhrez</a>



Help



no title

Search

Overview Code Bugs Blueprints Translations Answers

Actions

- > Overview
- > Translate many
- > Switch languages
- > Upload a file
- > Download
- > View template

Hebrew translators

Contributors

What's this all about?

Translation file details

Statistics

You are translating

# trunk into Hebrew

Template: Hebrew (he) translation of silva in Silva trunk

Make suggestions from: (no value) Change

67 of 1042 results

« First — Previous — Next — Last »



67.

**English:** Description of content in this area.

**Current Hebrew:** תיאור התוכן באיזור זה

**Translated by:** Ofer Weisglass on 2005-10-14

**Reviewed by:** Ofer Weisglass on 2005-10-14

**New translation:**

Add more lines

Someone should review this translation

**Located in:** /doc/silva-extra.xml:156

Save & Continue



**“Many eyes make all bugs shallow.”**

**Unless, of course, those eyes are all in  
different places.**

# Optimising collaboration on bugs

- Minimise friction in bug filing
- Share conversation and data across communities
  - Federation vs centralisation
  - Standards for describing bug data
  - Standard API's for automated data flow
  - Standards for bug meta-data, too!

File Edit View History Bookmarks Tools Help

https://bugs.launchpad.net/ubuntu/+source/nautilus/+bug/12893

My Yahoo! Linux Thoughts Food Launchpad Demo Docs ToDo Blogs FARK.com Toread Verbiere Forecast

Your location: Home > Ubuntu > nautilus Logged in as Mark Shuttleworth - Log Out

# Bug #12893 in nautilus (Ubuntu)

Search

Overview Code **Bugs** Blueprints Translations Answers

**Actions**

- > Edit description/tags
- > Mark as duplicate
- > Visibility/security
- > Also affects upstream
- > Also affects distribution
- > Subscribe/Unsubscribe
- > Subscribe someone else
- > Comment or attach file
- > Target to release
- > Add branch
- > Link to CVE
- > Report a bug in nautilus in ubuntu
- > View activity log

🐞 Bug #12893, first reported on 2005-02-14 by Scott James Remnant

## Shouldn't put .Trash-\$USER on removable devices

**This bug has 10 duplicates**

Affects	Status	Importance	Assigned To
▶ nautilus (upstream)	Confirmed	Unknown	👤 gnome-bugs #138058
▶ Baltix	Unconfirmed	Undecided	—
▶ nautilus (Debian)	Confirmed	Unknown	👤 debbugs #277482
▶ nautilus (Ubuntu)	Fix Released	High	👤 Ubuntu Desktop Bugs

Also affects: [+ Upstream...](#) [+ Distribution...](#)

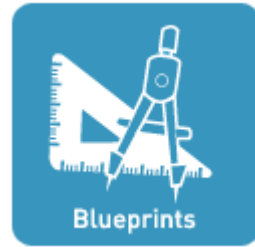
### Bug description

I'm sick and tired of finding that my digital camera card is full after deleting all the pictures, and my iAudio still plays deleted files.

This is because instead of deleting files from removal devices, Nautilus creates a .Trash-\$USER directory and moves the files into there.

Can we please make the default be to `_not_` do this? It makes (some) sense for the main drive, but removable ones tend to be "temporary" storage. A better

Done bugs.launchpad.net



**“We all stand together”**

# Collaborating on project management

- Free software developers don't believe in long term plans: “agile”, “evolving”, “release early, release often”, “when it's done”.
- Projects have interdependencies, so project delays do have greater consequences
- The best projects communicate their plans well:
  - GNOME, Mozilla, OpenOffice, Linux, Python

# We LOVE blueprints at Ubuntu

- Lightweight specification process
  - not a formal system specification, but a rough idea
  - helps focus community attention on projects
  - creates a language for describing work underway
  - organise and prioritise work and landings

# Python

[\[Python Home\]](#) [\[PEP Source\]](#)

**PEP:** 0  
**Title:** Index of Python Enhancement Proposals (PEPs)  
**Version:** \$Revision: 42190 \$\br/>
**Last-Modified:** [\\$Date: 2006-01-26 20:45:49 +0100 \(Thu, 26 Jan 2006\) \\$](#)  
**Author:** David Goodger <goodger at python.org>, Barry A. Warsaw <barry at python.org>  
**Status:** Active  
**Type:** Informational  
**Created:** 13-Jul-2000  
**Post-History:**

## Introduction

The PEP contains the index of all Python Enhancement Proposals, known as PEPs. PEP numbers are assigned by the PEP Editor, and once assigned are never changed. The CVS history[1] of the PEP texts represent their historical record.

The BDFL maintains his own Pronouncements page[2] at <http://www.python.org/doc/essays/pepparade.html> which contains his musings on the various outstanding PEPs.

## Index by Category

num	title	owner
Done		





## Actions

- > Roadmap
- > Assignments
- > Set release goals
- > List declined blueprints

## Blueprints targeted at The Feisty Fawn

 Show only blueprints containing:  

Priority	Blueprint	Definition	Delivery	Assignee	Milestone
Essential	<a href="#">network-roaming</a>	Approved	Implemented	Tollef Fog Heen	
Essential	<a href="#">accelerated-x</a>	Review	Beta Available	Scott James Remnant	
Essential	<a href="#">bullet-proof-x</a>	Drafting	Unknown		
Essential	<a href="#">composite-by-default</a>	Drafting	Deferred	Scott James Remnant	
High	<a href="#">auto-dist-upgrade-testing</a>	Approved	Beta Available	Michael Vogt	ubuntu-7.04
High	<a href="#">automated-testing-deployment</a>	Approved	Blocked	Ian Jackson	
High	<a href="#">binary-driver-education</a>	Approved	Good progress	Martin Pitt	
High	<a href="#">bug-reporting-tool</a>	Approved	Implemented	Martin Pitt	
High	<a href="#">common-customizations</a>	Approved	Implemented	Michael Vogt	
High	<a href="#">devel-list</a>	Approved	Implemented	James Troup	
High	<a href="#">dist-upgrader-fixes</a>	Approved	Started	Michael Vogt	
High	<a href="#">driver-backports</a>	Approved	Deployment	Ben Collins	
High	<a href="#">easy-codec-installation</a>	Approved	Beta Available	Sebastien Bacher	
High	<a href="#">enabling-additional-components</a>	Approved	Implemented	Michael Vogt	
High	<a href="#">feisty-telepathy</a>	Approved	Deferred	Daniel Holbach	
High	<a href="#">gnome-app-install-codecs</a>	Approved	Implemented	Ian Jackson	



**“Let a hundred flowers bloom”**

# Version control is essential ingredient

- Centralised version control powered the early free software revolution
  - CVS
  - Subversion

# Distributed version control

- No second-class citizens
- Creates some new challenges
  - Distributed code can be harder to find
  - Less pressure to bake a real release
- Several free contenders
  - Git, Bazaar

# Bazaar – key ingredients for success

- Cross-platform development
- Network-oriented: HTTP and custom protocols
- Huge test suite
- Robust in the face of radical tree morphing
- Fast enough for most projects

### projects /



To clone one of these trees using [Cogito](#):  
cg-clone git://git.kernel.org/pub/scm/ + project path.

For more information about [GIT](#), see an [overview](#), the [tutorial](#) or the [man pages](#).

Project	Description	Owner	Last Change	
boot/syslinux/syslinux.git	SYSLINUX development tree	H. Peter Anvin	7 days ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
boot/u-boot/u-boot.git		Kumar Gala	39 hours ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
cogito/cogito.git	Petr's Cogito SCMish GIT shell	Petr Baudis	2 days ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
cogito/git-pb.git	Petr's core git plumbing	Petr Baudis	4 months ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
devel/sparse/sparse.git	C semantic parser	Linus Torvalds	2 weeks ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
git/git-tools.git	Git tools for applying mboxes ...	Linus Torvalds	7 months ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
git/git.git	The core git plumbing	Junio C Hamano	11 hours ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
git/gitweb.git	GIT Web Interface	Kay Sievers	10 days ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
gitk/gitk.git		Paul Mackerras	7 weeks ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
libs/klibc/klibc-old.git	Pre-kbuild klibc tree	H. Peter Anvin	7 weeks ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
libs/klibc/klibc-renamed.git	klibc tree named for kernel ...	H. Peter Anvin	10 days ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
libs/klibc/klibc.git	klibc main development tree	H. Peter Anvin	10 days ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
libs/klibc/sam/klibc-kbuild.git	klibc standalone tree	Sam Ravnborg	5 months ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
libs/libucd/libucd.git	Unicode Character Database ...	H. Peter Anvin	4 weeks ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
linux/hotplug/udev.git	udev development tree	Kay Sievers	12 hours ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
linux/kernel/git/acme/net-2.6.17.git	Arnaldo Melo's 2.6.17 networki ...	Arnaldo Carvalho ...	2 days ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
linux/kernel/git/acme/ostra.git	Object based Source patching ...	Arnaldo Carvalho ...	5 days ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
linux/kernel/git/aegl/linux-2.6.git	ia64: release->linus test ...	Tony Luck	15 hours ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
linux/kernel/git/aia21/ntfs-2.6-devel.git	NTFS Development Tree	Anton Altaparmakov	2 months ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>
linux/kernel/git/aia21/ntfs-2.6.git	NTFS Stable Tree	Anton Altaparmakov	2 months ago	<a href="#">summary</a>   <a href="#">shortlog</a>   <a href="#">log</a>

Help

**Banshee Music Player**

- Meetings
- Milestones
- Series
- Related

Search

Overview Code Bugs Blueprints Translations Answers

Actions > Register branch

# Bazaar branches

Show branches with status of New, Experimental, Development or Mature

Name	Author	Status	Last Commit
scratch	LCID Fire	Development	three days ago
dap_playlists	Kevin Kubasik	New	17 weeks ago
kevin	Kevin Kubasik	New	
main		New	46 weeks ago

# Very poor collaboration between distros

- Patches don't travel well
- Diverse forms of packaging
  - spec / rpm, deb, ebuild, ports
- No metadata to coordinate similar work across distributions



# Plans to improve package collaboration

- Standardise package patch management
- Distributed VCS
  - Every patch becomes a branch
- Improve access of upstreams to distro VCS

# People collaborate, not robots

- Leadership and governance are key
- Rich team structures make for rapid response and creativity
- Competition and collaboration go hand in hand

Help



# Ubuntu Members

- Overview
- Code
- Bugs
- Blueprints
- Translations
- Answers

## Actions

- > Change details
- > Change branding
- > Change home page
- > Show all members
- > Add member
- > Change contact address
- > Show polls
- > Create a poll
- > Leave the Team
- > Change owner
- > List assigned packages

Ubuntu Members

## Ubuntu Members

The Ubuntu Members are the group of people who vote to confirm new appointments to the Ubuntu Community Council. Membership is open to anybody who has made a substantial contribution - of any form - to Ubuntu.



### Recently approved

- Marco da Silva (marcodasilva)
- Scott Ritchie (scottritchie)
- AndrewB (andrew-alex-barber)
- Sebastian Schauenburg (s.schauenburg)
- Martin Albisetti (beuno)

### Recently applied

- CHoudeshell (choudesh)

### Team and membership summary

- Team owner:** Ubuntu Community Council
- Membership:** 279 (Moderated Team)
- Icon:**
- Wiki:** UbuntuMembers

### Subteam of

"Ubuntu Members" is a member of these teams:

## Tools to consider

- Trac for integrated wiki, bugs, subversion
- **Launchpad.net** for integrated bugs, branches, plans
- Web based project management: Basecamp HQ
- Opportunity for interproject-management
  - Kernel and distro's
  - KDE / Gnome and distro's
  - Libraries and dependencies: GTK & Gnome

**“Be fruitful!”**