How Helpful Are We?: An Exploration into Making SUMO Metrics Accessible

Tanay Gavankar

SUMO Metrics



- Average Weight: 412 lbs*
- Average Height: 6' 2"*
- Average Salary: \$30,500*

* Based on sample size of 0.

support.mozilla.com



What do you need help with?





A Firefox Help Home

? Ask a Question

Help with:

- + Windows
- + Firefox 5

Adobe has released a critical security update for the Flash plugin. For your safety, please make sure your plugins are up to date.

New to Firefox?

Getting started with Firefox How to set the home page Customizing Firefox with add-ons Pop-up blocker Updating Firefox

Common Questions

Common questions after updating Firefox

Firefox does not ask to save tabs and windows on exit Fonts look blurry

Add-ons are disabled after

Explore Help Topics

Troubleshooting

- · Firefox crashes
- The Adobe Flash plugin has crashed
- Add-ons are disabled after updating Firefox
- Troubleshooting extensions and themes
- Troubleshooting plugins
- Error loading web sites

Privacy & Security

- How do I stop websites from tracking me?
- Private Browsing
- · Clear Recent History
- · How to clear the cache
- Enabling and disabling cookies

For Contributors

Contributor Home Page
Knowledge Base Dashboard
Media Gallery
Help on Twitter
Answer Support Questions
Help with Live Chat
Improve the Knowledge
Base
Translate Articles
Contributors Forums
Support Forum

Using Firefox

- · Tabbed browsing
- How do I use bookmarks?
- Location bar autocomplete
- What are App Tabs?

Customizing Firefox

- How to set the home page
- Customizing Firefox with add-ons
- · How do I customize the

Be AWESOME



INOTE: PITELOX 3.0.4 and above also load plugins separately from Pitelox, allowing Pitelox to stay open if a plugin crashes. To make sure you are using the latest version of Firefox, see Updating Firefox.

Malware: viruses or spyware

A number of different viruses and spyware are known to crash Firefox. Ensure that your system is kept clean of spyware and viruses. For more information, see Is my Firefox problem a result of malware.

Based on information from Firefox crashes (mozillaZine KB)

Contributors to this page: Verdi, Cb_Hr, scoobidiver

Was this article helpful?







Couldn't find what you were looking for?

Ask our awesome support community for help

Or try searching:



Q Search Firefox Help



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Was this article helpful? Yes No



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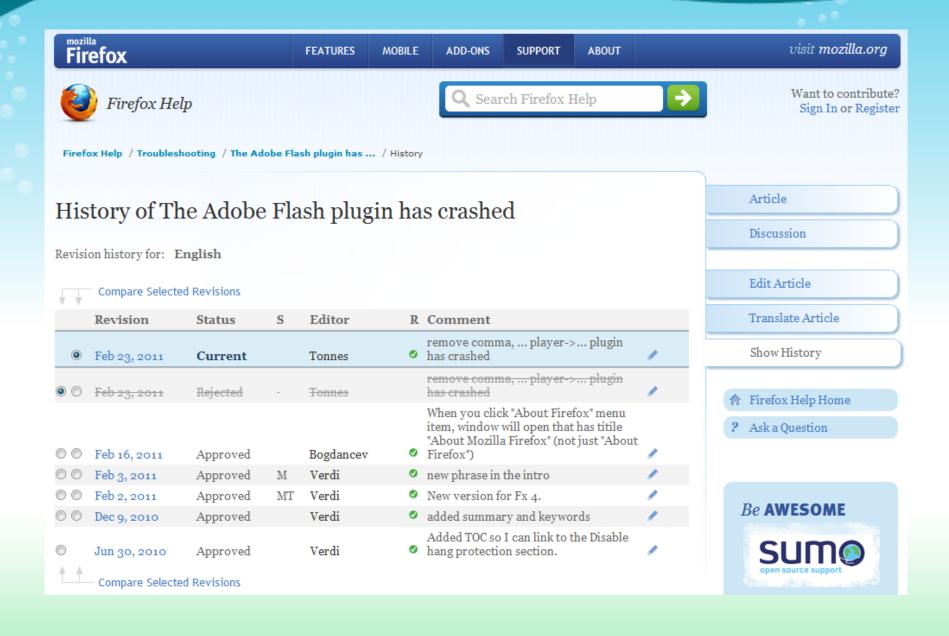
Ask our awesome support community for help

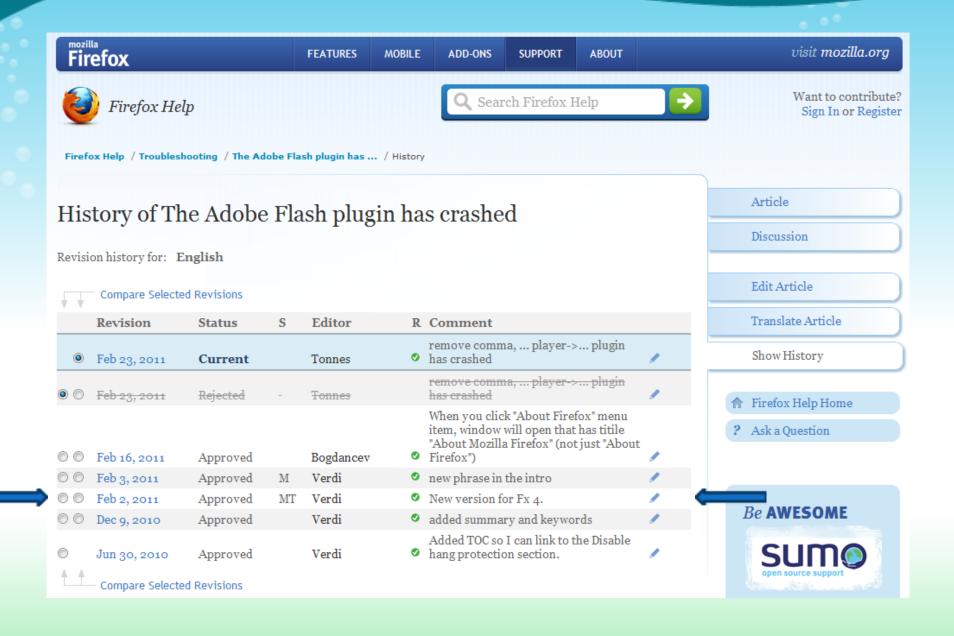
Or try searching:



What's in these entries?

+ Field	+ Type	-+ 	Null	+	Key	+	Default	++ Extra
id document_id helpful created creator_id anonymous_id user_agent	int(11) int(11) int(11) tinyint(1) datetime int(11) varchar(40) varchar(1000)	-+ 	NO NO NO NO YES NO	+	PRI MUL MUL MUL MUL	+	NULL NULL NULL NULL NULL NULL NULL	auto_increment auto_increment





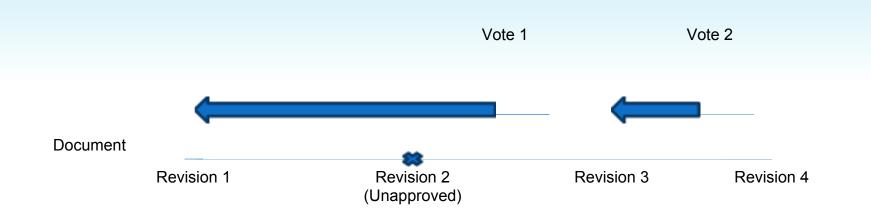
So, a document can completely change between revisions. Wait a second...

Field	 Type +	Null	Key	Default	Extra
id	int(11)	NO	PRI	NULL	auto increment
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_		NO	•	NULL	i i
	datetime	NO	MUL	NULL	
creator id	int(11)	YES	MUL	NULL	
	varchar(40)	NO	MUL	NULL	
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- Document_id was no good
 - Needed revision_id
- Issues:
 - - One big MySQL migration was too slow (~3 hours)
 - May cause slave replication lag
 - Many votes were migrated from TikiWiki
 - Caused edgecases in document -> revision ID conversion

Conversion Logic (Simplified)



- Constraints
 - No slave replication lag / must be fast
 - Sub 1 sec if possible
 - Must not be destructive
 - Can't delete anything
 - Can't do it in place (needs another table)
 - Shouldn't cause disruption to users
 - Will be running on a production server
 - Millions of hits per day

- Solution 1:
 - Cron job that did the conversion in smaller chunks
- Still too slow!
 - Chunks of 1000 entries still took ~2 minutes each
 - Possibly caused by network latency
 - Currently pushing data back and forth between Django and MySQL
- Can we get it down to a single MySQL query?
 - o Yes!

- Solution 2:
 - Celery Tasks fired from Admin Panel
 - o 2000 piece chunks, ratelimited at 1 / minute
 - ~500 700 ms / chunk!

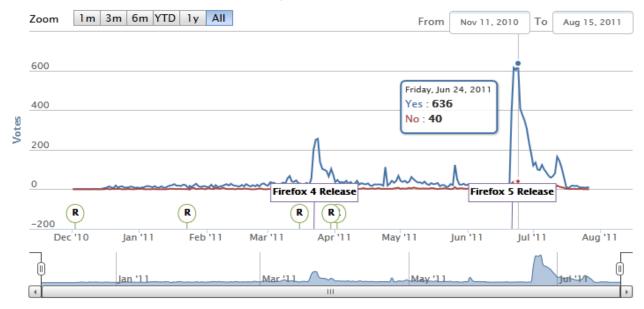
Django administration	Welcome, tgavankar. Change password / Log out
Home > HelpfulVotes	
HelpfulVotes	
Migrating HelpfulVotes is currently disabled. Activate waffle sw	itch 'migrate-helpfulvotes' to enable.
Migrate Specific HelpfulVotes	
Chunk Size: 2000	
Insert a space delimited, hyphenated list of the ID ranges only must be multiples of chunk size. For example (assume 2000 ch run 2000 sized chunks starting at 2000, 4000, 6000, 8000, 12 included, while the higher number is not. Interval notation: [lo	unksize), the entry "2000-10000 12000-14000" will 000. Note that in a given range, the lower number is
IDs:	
Migrate HelpfulVotes	

Now for the front end...

History of What are Tab Groups?

Revision history for: English





Query took: 0.021940231323242188 seconds

Compare Selected Revisions Editor Revision Status R Comment added next & previous Tab Group shortcuts, added troubleshooting section, replaced tab strip by Tab Strip, removed scoobidiver unrelated keywords Jul 4, 2011 Review typos Apr 1, 2011 Current linesarefuzzy added screencast Verdi Mar 29, 2011 Approved M capitalizing Enter/Return and changing Mar 15, 2011 Approved djst reference of Panorama to Tab Groups KadirTopal changed 'click return' to 'hit return' Mar 15, 2011 Unreviewed Rewrote as Tab Groups instead of Panorama, added info about how the

Article

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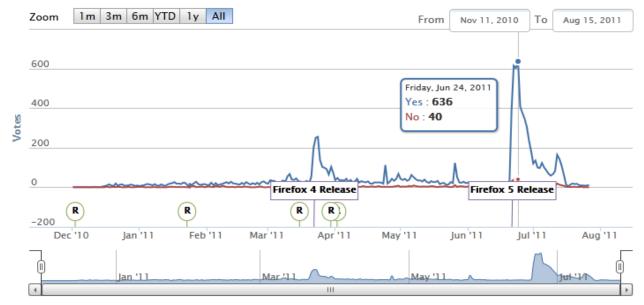




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Firefox Help / How to / What are Tab Groups? / History History of What are Tab Groups? Revision history for: English Helpfulness Votes 1m 3m 6m YTD 1y All Zoom Nov 11, 2010 From To Aug 15, 2011 600 Friday, Jun 24, 2011 Yes: 636 400 No: 40 Votes 200 Firefox 4 Release Firefox 5 Release R -200 Mar '11 Dec '10 Jan '11 Feb '11 Apr '11 May '11 Jun'11 Jul '11 Aug '11 111 Query took: 0.021940231323242188 seconds Compare Selected Revisions Editor Revision Status R Comment added next & previous Tab Group shortcuts, added troubleshooting section, replaced tab strip by Tab Strip, removed scoobidiver unrelated keywords Jul 4, 2011 Review typos Apr 1, 2011 Current linesarefuzzy added screencast Verdi Mar 29, 2011 Approved M capitalizing Enter/Return and changing Mar 15, 2011 Approved djst reference of Panorama to Tab Groups

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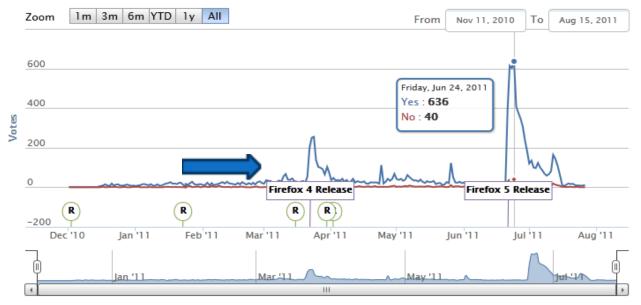




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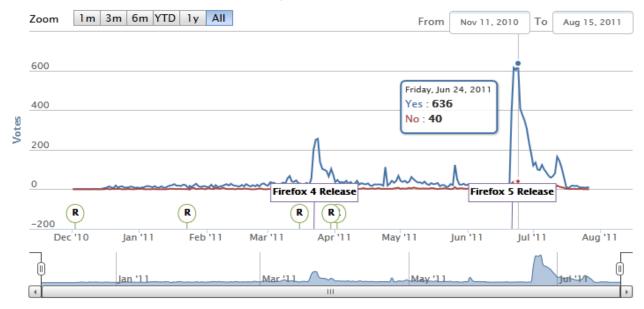




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But there are thousands of articles... How do contributors know which to look at?

Aggregate Metrics Page

- Get overall helpfulness of all articles
 - Sorted by "most unhelpful"
- Expensive!
 - Running this huge query on every request
- Solution:
 - Run a cron daily to store the results into Redis

So how exactly do you sort by "most unhelpful"?

- Percent Helpful?
 - ∘ No
 - 0% helpful with 1 vote
 - 10% helpful with 1000 votes
- Raw vote count?
 - Maybe...
- We need to combine both... but how?

Bayesian Average

- C = average rating
- m = average number of votes
- R = current rating
- v = current number of votes
- Pushes low vote count towards average high vote count rankings

$$\frac{Cm + Rv}{m + v}$$

ving

Unhelpful Documents

Most Unhelpful

Article	Total Votes	Helpfulness
How do I switch update channels?	360	8.3%
Lost Bookmarks	178	14.0% -16.
No sound in Firefox	110	11.8%
Firefox Sync is not working	69	10.1%
Firefox will not start	152	15.1%
Printing a web page	93	14.0%
Firefox cannot load websites but other programs can	241	18.7%
Removing the Search Helper Extension and Bing Bar	23 🖩	4.3%
Cannot scroll with mouse wheel or touchpad	21 🖩	4.8%
No programs can load websites	35	14.3%
Firefox window is too large or opens off screen	16	6.2%
Favicons do not display	11	0.0%
Server not found	50	18.0%
Bookmarks not saved	36	16.7%
Firefox keeps opening many tabs or windows	27	14.8%
Moving your Firefox bookmarks and settings	57	19.3%
Form autocomplete entries are not saved	30	16.7%
Cannot connect after upgrading Firefox	81	21.0%
Unable to install add-ons	38	18.4%
Multiple tabs open when starting Firefox	68	20.6%
Firefox hangs	145	22.1%
Flash does not work properly or will not update	15	13.3%
Importing bookmarks and other data from	6	0.0%

- + Firefox Help Home
- Ask a Question

For Contributors

Contributor Home Page
Knowledge Base Dashboard
Media Gallery
Help on Twitter
Answer Support Questions
Help with Live Chat
Improve the Knowledge
Base
Translate Articles
Contributors Forums
Support Forum

Be AWESOME



Did you know that Firefox Help is powered by volunteer superheroes all around the world?

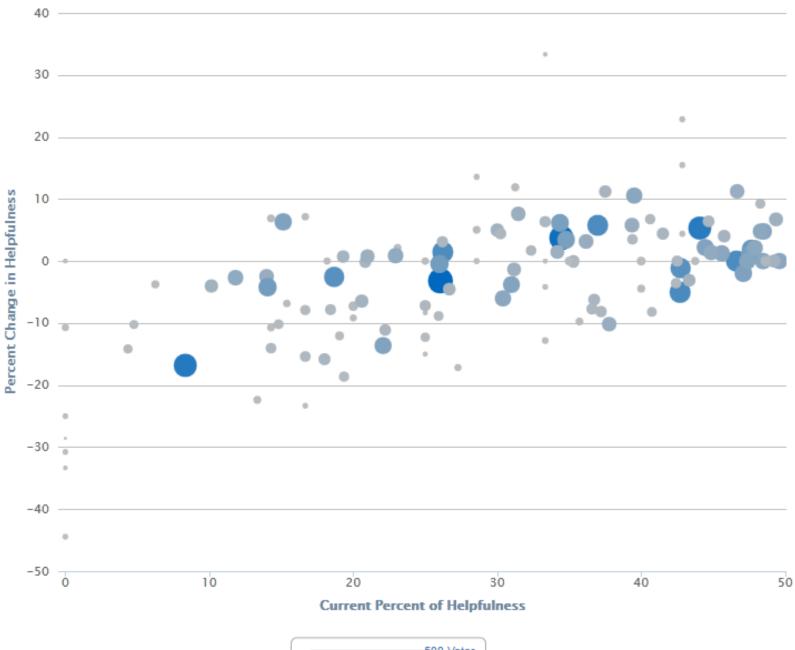
Grab your cape and join us »

Check your **PLUGINS**

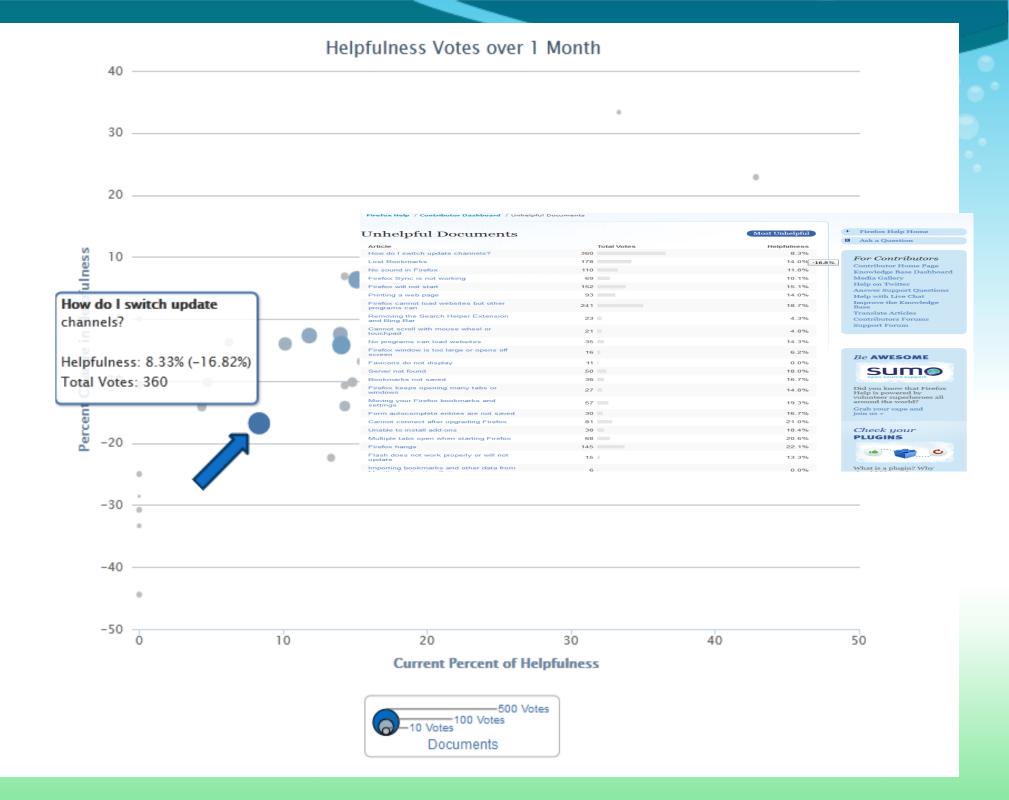


What is a plugin? Why









Questions?