

Fedora Bug Triage



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June 21, 2008
version 0.2

What Is Bug Triage?

- *Bug Triage* is the process of reviewing open bug reports to make sure that they are:
 - reported in the correct place
 - Correct component
 - Something that Fedora can fix
 - in the correct status
 - detailed enough to aid the package maintainer in fixing the bug
 - not a duplicate of a previously reported bug
 - not already fixed
- More information: <http://fedoraproject.org/wiki/BugZappers>



Open Bugs

The screenshot shows a web browser window displaying the Red Hat Bugzilla report for 'Version / Status'. The browser's address bar shows the URL: https://bugzilla.redhat.com/report.cgi?x_axis_field=bug_status&y_axis_field=. The page features the Red Hat logo, navigation menus for 'Home', 'Enterprise Linux', 'JBoss', 'Training', 'Red Hat Network', 'Truth Happens', 'Fedora', 'Store', 'Bugzilla', and 'WORLDWIDE'. A search bar for 'Goto bug #' is visible. The report is titled 'Report: Version / Status' and includes tabs for 'Tabular', 'Graphical', 'Series Charts', and 'Over Time'. The 'Tabular' view is selected, showing a table with columns for 'Version' and various bug statuses: ASSIGNED, FAILS_QA, MODIFIED, NEEDINFO, NEW, ON_DEV, ON_QA, POST, RELEASE_PENDING, VERIFIED, and Total. The data is as of 2008-06-20.

Version	ASSIGNED	FAILS_QA	MODIFIED	NEEDINFO	NEW	ON_DEV	ON_QA	POST	RELEASE_PENDING	VERIFIED	Total
6	2	.	.	.	2	4
8	909	2	120	257	1813	3	62	10	4	4	3184
9	1459	.	216	200	2451	4	96	22	3	4	4455
rawhide	645	.	50	67	1513	1	14	2	.	.	2292
Total	3015	2	386	524	5779	8	172	34	7	8	9935

As of 2008-06-20



Anybody Can Help

You do NOT need to:

- understand individual bug reports and solve them yourself.
- be a programmer or package maintainer
- commit a significant number of hours each day or week to have an impact

You DO need to have a:

- basic familiarity with Fedora and Linux in general
- basic understanding of how RPM packages work
- desire to learn more and make Fedora better



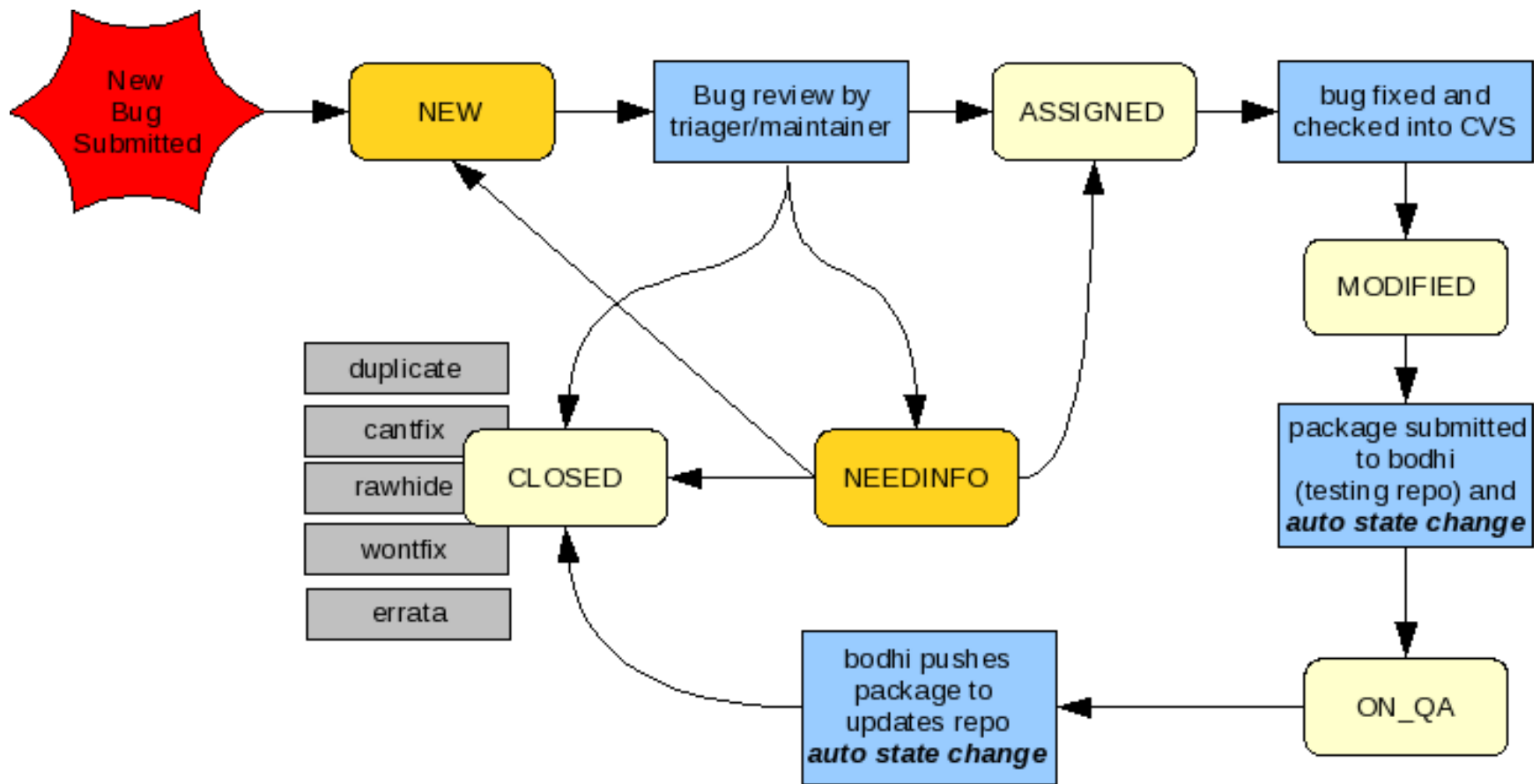
Bug States

- The foundation of bug triage is built on the status of each bug and helping to make sure they reach their final resting place--CLOSED.
- Our current focus is bugs in states of:
 - NEW
 - NEEDINFO
- To be an effective triager it also helps to have an overall understanding of “the life of a bug”
 - See the next slide



Bug State Flow

This picture shows the normal states a bug goes through in Fedora



Reference: <http://fedoraproject.org/wiki/BugZappers/BugStatusWorkFlow>



Regular Triage Duties

- Locating and reviewing bugs with a status of:
 - NEW
 - NEEDINFO
- Requesting more information or changing the status of the bug to its next state
 - See previous flowchart to determine the next correct state
- Reviewing bugs in *unusual* states
 - States not usually used by Fedora
 - See diagram on previous slide



Triaging NEW Bugs

- Locate bugs with a status of NEW
- Perform a general review of the bug to make sure that:
 - It is reported against a supported version of Fedora
 - Contains enough information for the package maintainer to investigate the cause of the bug
 - Is reported against the correct component
 - Is not a duplicate of an existing bug
- If everything is correct, the bug should be changed to ASSIGNED
- If information is missing and needs to be requested, add a comment and change the bug to NEEDINFO
- If the bug is a duplicate or already fixed, add a comment and change the bug to CLOSED



Bugs that Fedora CANTFIX

- There are some bugs that Fedora can't fix
 - Software that we don't ship
 - Proprietary drivers not working
 - nVidia
 - VMWare
 - ATI fglrx (NOT radeonhd)
- Tainted or custom kernels (only for kernel bugs)
- Stock responses at <http://fedoraproject.org/wiki/BugZappers/StockResponses>



Finding Duplicate Bugs

- Use <https://bugzilla.redhat.com/query.cgi?format=specific>
 - Most effective method of finding dupes
 - Also the simplest search method :)
 - Search open bugs first, then closed
- Judicious use of keywords is essential
 - Too broad and you have thousands of bugs
 - Too narrow and you won't find a potential duplicate
- If the problem refers to specific hardware, then searching on either the name of the hardware or the driver can be helpful
 - Not so helpful if driver is really common



Duplicate Bugs – continued

- There is a facility at <http://bugz.fedoraproject.org/<package>> where you can view a list of ALL open bugs against a package
 - Useful for components with a small number of bugs
- For packages with very low amounts of open bugs, you can use this interface and scan summaries to find dups
- However, this won't help you find incorrectly filed bugs (i.e. against the wrong component).



Triaging NEEDINFO Bugs

- Locate bugs with a status of NEEDINFO
- If a bug has been in NEEDINFO for more than thirty (30) days and there has been no response to the requested information
 - Add a comment noting that there has been no response
 - Change status of the bug to CLOSED
- Standard wording and several polite ways of conveying this message are here:
 - <http://fedoraproject.org/wiki/BugZappers/StockBugzillaResponses>
- If the information has been provided, but the state has not been changed to the previous state, change the bug to the appropriate state.



You Want to Jump In?

Here is what you need:

- 1) Fedora Account
 - 2) Add 'fedorabugs' group membership to your Fedora Account
 - 3) Sign up for a Red Hat Bugzilla account
 - email account (buzilla user id) must match Fedora Account
 - 4) Add your name to the Active Triager's wiki page
 - <http://fedoraproject.org/wiki/BugZappers/ActiveTriagers>
- All the current details are here:
 - <http://fedoraproject.org/wiki/BugZappers/Joining>



Finding Bugs

- There's going to be a live demonstration of this
- RSS feeds
 - http://fedoraproject.org/wiki/BugZappers/FindingBugs#RSS_Feeds
- Pre-formatted queries found at above link—or request one
- Columns displayed in bugs can be changed, I use Bug ID, creation date, change date, assignee, state, version, component, and short summary. This winds up looking like this:

ID	Open Date	Changed Date	Assignee	Status	Comp	Resolution	Vers	StatusSummary	Summary
435871	2008-03-04	2008-05-01	john@ncphotography.com	NEW	bugzilla		8	SELinux is preventing createaccount.c (httpd_bugzilla_scr...	
436536	2008-03-07	2008-05-01	john@ncphotography.com	NEW	bugzilla		8	can't connect to secure LDAP server for auth	
437035	2008-03-11	2008-05-01	john@ncphotography.com	NEW	bugzilla		8	LDAP users can login even if their accounts have expired	



Tools of the trade

- Don't be afraid, you needn't know about all of these, but you'll probably encounter them:
 - Bugzilla, the bug tracking database for Fedora
 - The package database, pkgdb
 - The updates system, bodhi
 - The buildsystem, koji



Triaging a bug

- Let's take the first bug in the last screen shot as an example, bug 435871. This is a bug about an SELinux denial.
- Looking at the bug, we note that it has an AVC message:
- At the top of the bug is the component that this is assigned to right now
- The component of this should be selinux-policy-mls

Bug Comments

Opened by Adrin Jalali (adrin.jalali@gmail.com) on 2008-03-04 02:40 EST [reply]

Description of problem:

SELinux denied access requested by createaccount.c. It is not expected that this access is required by createaccount.c and this access may signal an intrusion attempt. It is also possible that the specific version or configuration of the application is causing it to require additional access.

Allowing AccessYou can generate a local policy module to allow this access - see FAQ Or you can disable SELinux protection altogether. Disabling SELinux protection is not recommended. Please file a bug report against this package.Additional InformationSource

```
Context: system_u:system_r:httpd_bugzilla_script_t:s0Target
Context: system_u:object_r:smtp_port_t:s0Target Objects: None [ tcp_socket
]Affected RPM Packages: Policy RPM: selinux-policy-3.0.8-84.fc8SELinux
Enabled: TruePolicy Type: targetedMLS Enabled: TrueEnforcing
Mode: PermissivePlugin Name: plugins.catchallHost
Name: localhost.localdomainPlatform: Linux localhost.localdomain
2.6.23.15-137.fc8 #1 SMP Sun Feb 10 17:48:34 EST 2008 i686 i686Alert
Count: 1First Seen: Tue 04 Mar 2008 11:03:51 AM IRSTLast Seen: Tue 04 Mar
2008 11:03:51 AM IRSTLocal ID: e9303818-2d1c-49b6-89e5-bb124303c23eLine
Numbers: Raw Audit Messages :avc: denied { name_connect } for
comm=createaccount.c dest=25 egid=48 euid=48 exe=/usr/bin/perl exit=-115
fsgid=48 fsuid=48 gid=48 items=0 pid=21369
scontext=system_u:system_r:httpd_bugzilla_script_t:s0 sgid=48
subj=system_u:system_r:httpd_bugzilla_script_t:s0 suid=48 tclass=tcp_socket
tcontext=system_u:object_r:smtp_port_t:s0 tty=(none) uid=48
```

Bug List: (1 of 5) [First](#) | [Last](#) | [Prev](#) | [Next](#) | [Show List](#)

[Last Comment](#) |

Alias	<input type="text"/>	Priority	low
Product	Fedora Update Products	Severity	high
Version	8 Update Versions	Status	NEW
Component	bugzilla Update Components	Resolution	
OS	Linux	Add CC	<input type="text"/>
Hardware	All	CC	<input type="text" value="cje@btinternet.com"/> <input type="text" value="tuju@iki.fi"/>
Reporter	Adrin Jalali (adrin.jalali@gmail.com)		<input type="checkbox"/> Remove selected CCs
Assigned To	John Berninger (john@ncphotography.com)		
<input type="button" value="Save Changes"/>			

Component guidelines

- Components in bugzilla are SRPM names, not binary RPM's. For example, if a person is having a problem with nash, there is no component for that. Find the SRPM name via 'rpm -qif <filename>'. For nash, that's mkinitrd
- The component of a bug should be the thing that is actually responsible for the issue. The previous bug was originally (incorrectly) filed against bugzilla.
- The bugzilla package has nothing to do with SELinux policy that is enforced against it, therefore the component should be the SELinux policy in use
- We notice from the AVC message that the policy in use is the targetedMLS policy, therefore, the bug should be assigned to selinux-policy-mls. If you are unsure, assign SELinux bugs to either selinux-policy-targeted or just plain selinux-policy



Searching Bugzilla

- There's nothing to be afraid of :)
- The advanced search form looks like a jumble of things that some web designer did as their first project and then threw a bunch of JavaScript around it to make it somewhat prettier, but it really is very functional
- There are two other methods of searching (at current, one may be going away in Bugzilla 3.2 – the simple search)
 - Specific
 - Simple
- The specific search searches both subjects and comments for keywords. This is a simple, yet powerful search
- The simple search allows you to narrow by component



Searching Bugzilla

Search for Bugs (Advanced)

[Specific](#) [Simple](#) [Advanced](#) [Duplicates](#)

[Give me some help](#) (reloads page.)

Quick Search

[Summary](#) contains all of the words/strings

Product Information

Products

Bugzilla
Dogtag Certificate System
eCos
Fedora
Fedora Directory Server
Fedora Documentation
Fedora EPEL

Versions

All
1
1.0
1.0-beta1
1.0-beta2
1.0.1
1.0.2

Components

All
4Suite
8Kingdoms
915resolution
9wm
ABE
AGReader

[\[Help\]](#)

Status, Type, and Platform Information

Status

NEW
ASSIGNED
NEEDINFO
MODIFIED
ON_DEV
ON_QA
VERIFIED
FAILS_QA

Resolution

NOTABUG
WONTFIX
DEFERRED
WORKSFORME
CURRENTRELEASE
RAWHIDE
ERRATA
DUPLICATE

Severity

urgent
high
medium
low

Priority

urgent
high
medium
low

Platform

All
i386
alpha
sparc
noarch
ia64
i586
i686

OS:

Linux
All
Windows
Mac OS
Other

String Search

[A Comment](#)

contains the string

[The URL](#)

contains all of the words/strings

[Whiteboard](#)

contains all of the words/strings

[Fixed In Version](#)

contains all of the words/strings

[QA Whiteboard](#)

contains all of the words/strings



Advanced Search

- We don't use all of the fields!
 - Platform and OS are generally not used
 - Severity and Priority are ignored (for now)
- This reduces the apparent complexity of the form greatly
- Any field that has no selection is treated as though it didn't exist – you don't have to fill out every possible field
- There are some powerful limiters available to use – including full-text comment search.

