####(PR)#####

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##: 43184

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##

########## FreeBSD PR ########## FreeBSD ####(PR) ######### PR # #####

####

1.

GNATS # FReeBSD #############(##bug) ### ### FreeBSD ######################## ##### ########### GNATS #######

Access to GNATS is available to FreeBSD developers, as well as to the wider community. # ## GNATS ######################followup(##)###PR#######

2. ####(PR)#####

- ######(originator)# send-pr(1) ## PR###########

- ###committer #####(#### Joe)###### PR ### PR ######### ## bugbuster ###(#### Jane) ######### Joe ########## PR ##(assign)##

- Joe ################(######### audit #####) ######## ########### audit ######### ## PR #### “analyzed(###)”#

- Joe ############## patch ## follow-up(###)############### ####### PR #### “feedback” ##

- #### analyzed#feedback ####### Joe ########### patch ### ##### patch # commits # # `-CURRENT` (### `-CURRENT` ############## `-STABLE`)## commit log ##### PR ### (# ############ patch ########)################# MFC ## (###MFC## Merged From CURRENT ##### `-CURRENT` ###### `-STABLE` #

- ## patch ### MFC ###Joe ####(close)# PR ##

- ## patch ## MFC ###Joe ## PR #### “patched(###)”# #### MFC ##### close(##)#

##

PR ######################## ############## ######## ################### ##################### re-open(####) # PR######

##

PR #### “email address” ######################## followup # PR ##(# followup #)############# email address# ##### mail ### ############### send-pr(1) ######

3. ####(PR)###

PR ############## PR ####(state)## ############# PR

1. ##### PR

######### PR ######### developer(s) ################ followup # PR######## “feedback”######################################

PR

open	PR ######################
analyzed	######################
feedback	## ######
patched	##### patch #########(MFC#############)##### ##
suspended(##)	########################### This is a prime candidate for somebody who is looking for a project to take on. If the problem cannot be solved at all, it will be closed, rather than suspended. The documentation project uses “suspended” for “wish-list” items that entail a significant amount of work which no one currently has time for.
closed	A problem report is closed when any changes have been integrated, documented, and tested, or when fixing the problem is abandoned.

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The “patched” state is directly related to feedback, so you may go directly to “closed” state if the originator cannot test the patch, and it works in your own testing.

4. ####(PR)###

While handling problem reports, either as a developer who has direct access to the GNATS database or as a contributor who browses the database and submits followups with patches, comments, suggestions or change requests, you will come across several different types of PRs.

- PRs not yet assigned to anyone.
- PRs already assigned to someone.
- ### PR
- Stale PRs
- Misfiled PRs

The following sections describe what each different type of PRs is used for, when a PR belongs to one of these types, and what treatment each different type receives.

4.1. Unassigned PRs

When PRs arrive, they are initially assigned to a generic (placeholder) assignee. These are always prepended with `freebsd-` . The exact value for this default depends on the category; in most cases, it corresponds to a specific FreeBSD mailing list. Here is the current list, with the most common ones listed first:

1. Default Assignees —— most common

Type	Categories	Default Assignee
base system	bin, conf, gnu, kern, misc	freebsd-bugs
architecture-specific	alpha, i386, ia64, powerpc, sparc64	freebsd-*arch*
ports collection	ports	freebsd-ports-bugs
documentation shipped with the system	docs	freebsd-doc
FreeBSD web pages (not including docs)	www	freebsd-www

2. Default Assignees —— other

Type	Categories	Default Assignee
advocacy efforts	advocacy	freebsd-advocacy
Java Virtual Machine™ problems	java	freebsd-java
standards compliance	standards	freebsd-standards
threading libraries	threads	freebsd-threads
usb(4) subsystem	usb	freebsd-usb

Do not be surprised to find that the submitter of the PR has assigned it to the wrong category. If you fix the category, do not forget to fix the assignment as well. (In particular, our submitters seem to have a hard time understanding that just because their problem manifested on an i386 system, that it might be generic to all of FreeBSD, and thus be more appropriate for `kern`. The converse is also true, of course.)

Certain PRs may be reassigned away from these generic assignees by anyone. For assignees which are mailing lists, please use the long form when making the assignment (e.g., `freebsd-foo` instead of `foo`); this will avoid duplicate emails sent to the mailing list.

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Here is a sample list of such entities; it is probably not complete. In some cases, entries that have the short form are *aliases*, not mailing lists.

3. Common Assignees —— base system

Type	Suggested Category	Suggested Assignee
problem specific to the ARM® architecture	kern	freebsd-arm
problem specific to the MIPS® architecture	kern	freebsd-mips
problem specific to the PowerPC® architecture	kern	freebsd-ppc
problem with Advanced Configuration and Power Management (acpi(4))	kern	freebsd-acpi
problem with Asynchronous Transfer Mode (ATM) drivers	kern	freebsd-atm
problem with FireWire® drivers	kern	freebsd-firewire
problem with the filesystem code	kern	freebsd-fs
problem with the geom(4) subsystem	kern	freebsd-geom
problem with the ipfw(4) subsystem	kern	freebsd-ipfw

Type	Suggested Category	Suggested Assignee
problem with Integrated Services Digital Network (ISDN) drivers	kern	freebsd-isdn
problem with Linux® or SVR4 emulation	kern	freebsd-emulation
problem with the networking stack	kern	freebsd-net
problem with PicoBSD	kern	freebsd-small
problem with the pf(4) subsystem	kern	freebsd-pf
problem with the scsi(4) subsystem	kern	freebsd-scsi
problem with the sound(4) subsystem	kern	freebsd-multimedia
problem with sysinstall(8)	bin	freebsd-qa
problem with the system startup scripts (rc(8))	kern	freebsd-rc

4. Common Assignees —— Ports Collection

Type	Suggested Category	Suggested Assignee
problem with the ports framework (*not* with an individual port!)	ports	portmgr
port which is maintained by apache@FreeBSD.org	ports	apache
port which is maintained by eclipse@FreeBSD.org	ports	freebsd-eclipse
port which is maintained by gnome@FreeBSD.org	ports	gnome
port which is maintained by haskell@FreeBSD.org	ports	haskell
port which is maintained by java@FreeBSD.org	ports	freebsd-java
port which is maintained by kde@FreeBSD.org	ports	kde

Type	Suggested Category	Suggested Assignee
port which is maintained by openoffice@FreeBSD.org	ports	freebsd-openoffice
port which is maintained by perl@FreeBSD.org	ports	perl
port which is maintained by python@FreeBSD.org	ports	freebsd-python
port which is maintained by x11@FreeBSD.org	ports	freebsd-x11

Ports PRs which have a maintainer who is a ports committer may be reassigned by anyone (but note that not every FreeBSD committer is necessarily a ports committer, so you cannot simply go by the email address alone.)

For other PRs, please do not reassign them to individuals (other than yourself) unless you are certain that the assignee really wants to track the PR. This will help to avoid the case where no one looks at fixing a particular problem because everyone assumes that the assignee is already working on it.

4.2. Assigned PRs

If a PR has the `responsible` field set to the username of a FreeBSD developer, it means that the PR has been handed over to that particular person for further work.

Assigned PRs should not be touched by anyone but the assignee. If you have comments, submit a followup. If for some reason you think the PR should change state or be reassigned, send a message to the assignee. If the assignee does not respond within two weeks, unassign the PR and do as you please.

4.3. ### PR

If you find more than one PR that describe the same issue, choose the one that contains the largest amount of useful information and close the others, stating clearly the number of the superseding PR. If several PRs contain non-overlapping useful information, submit all the missing information to one in a followup, including references to the others; then close the other PRs (which are now completely superseded).

4.4. Stale PRs

A PR is considered stale if it has not been modified in more than six months. Apply the following procedure to deal with stale PRs:

- If the PR contains sufficient detail, try to reproduce the problem in `-CURRENT` and `-STABLE`. If you succeed, submit a followup detailing your findings and try to find someone to assign it to. Set the state to “analyzed” if appropriate.

- If the PR describes an issue which you know is the result of a usage error (incorrect configuration or otherwise), submit a followup explaining what the originator did wrong, then close the PR with the reason “User error” or “Configuration error”.

- If the PR describes an error which you know has been corrected in both `-CURRENT` and `-STABLE`, close it with a message stating when it was fixed in each branch.

- If the PR describes an error which you know has been corrected in `-CURRENT`, but not in `-STABLE`, try to find out when the person who corrected it is planning to MFC it, or try to find someone else (maybe yourself?) to do it. Set the state to “feedback” and assign it to whomever will do the MFC.

- In other cases, ask the originator to confirm if the problem still exists in newer versions. If the originator does not reply within a month, close the PR with the notation “Feedback timeout”.

4.5. Misfiled PRs

GNATS is picky about the format of a submitted bug report. This is why a lot of PRs end up being “misfiled” if the submitter forgets to fill in a field or puts the wrong sort of data in some of the PR fields. This section aims to provide most of the necessary details for FreeBSD developers that can help them to close or refile these PRs.

When GNATS cannot deduce what to do with a problem report that reaches the database, it sets the responsible of the PR to `gnats-admin` and files it under the `pending` category. This is now a “misfiled” PR and will not appear in bug report listings, unless someone explicitly asks for a list of all the misfiled PRs. If you have access to the FreeBSD cluster machines, you can use `query-pr` to view a listing of PRs that have been misfiled:

```
% query-pr -x -q -r gnats-admin
   52458 gnats-ad   open      serious   medium    Re: declaration ↺
clash f
   52510 gnats-ad   open      serious   medium    Re: lots of ↺
sockets in
   52557 gnats-ad   open      serious   medium
   52570 gnats-ad   open      serious   medium    Jigdo maintainer ↺
update
```

Commonly PRs like the ones shown above are misfiled for one of the following reasons:

- A followup to an existing PR, sent through email, has the wrong format on its `Subject:` header.

- A submitter sent a Cc: to a mailing list and someone followed up to that post instead of the email issued by GNATS after processing. The email to the list will not have the category/PRnumber tracking tag. (This is why we discourage submitters from doing this exact thing.)

- When completing the send-pr(1) template, the submitter forgot to set the category or class of the PR to a proper value.
- When completing the send-pr(1) template, the submitter set Confidential to `yes`. (Since we allow anyone to mirror GNATS via cvsup, our PRs are public information. Security alerts should therefore not be sent via GNATS but instead via email to the Security Team.)
- It is not a real PR, but some random message sent to <`bug-followup@FreeBSD.org` > or <`freebsd-gnats-submit@FreeBSD.org` >.

4.5.1. Followups misfiled as new PRs

The first category of misfiled PRs, the one with the wrong subject header, is actually the one that requires the greatest amount of work from developers. These are not real PRs, describing separate problem reports. When a reply is received for an existing PR at one of the addresses that GNATS “listens” to for incoming messages, the subject of the reply should always be of the form:

```
Subject: Re: category/number: old synopsis text
```

Most mailers will add the “`Re: `” part when you reply to the original mail message of a PR. The “`category/number: `” part is a GNATS-specific convention that you have to manually insert to the subject of your followup reports.

Any FreeBSD developer, who has direct access to the GNATS database, can periodically check for PRs of this sort and move interesting bits of the misfiled PR into the audit trail of the original PR (by posting a proper followup to a bug report to the address <`bug-followup@FreeBSD.org` >). Then the misfiled PR can be closed with a message similar to:

```
Your problem report was misfiled.  Please use the format
"Subject: category/number: original text" when following
up to older, existing PRs.  I've added the relevant bits
from the body of this PR to kern/12345
```

Searching with `query-pr` for the original PR, of which a misfiled followup is a reply, is as easy as running:

```
% query-pr -q -y "some text"
```

After you locate the original PR and the misfiled followups, use the `-F` option of `query-pr` to save the full text of all the relevant PRs in a UNIX® mailbox file, i.e.:

```
% query-pr -F 52458 52474 > mbox
```

Now you can use any mail user agent to view all the PRs you saved in `mbox`. Copy the text of all the misfiled PRs in a followup to the original PR and make sure you include the proper `Subject:` header. Then close the misfiled PRs. When you close the misfiled PRs remember that the submitter receives a mail notification that his PR changed state to “closed”. Make sure you provide enough details in the log about the reason of this state change. Typically something like the following is ok:

```
Followup to ports/45364 misfiled as a new PR.
This was misfiled because the subject did not have the format:

 Re: ports/45364: ...
```

This way the submitter of the misfiled PR will know what to avoid the next time a followup to an existing PR is sent.

4.5.2. PRs misfiled because of missing fields

The second type of misfiled PRs is usually the result of a submitter forgetting to fill all the necessary fields when writing the original PR.

Missing or bogus “category” or “class” fields can result in a misfiled report. Developers can use edit-pr(1) to change the category or class of these misfiled PRs to a more appropriate value and save the PR.

Another common cause of misfiled PRs because of formatting issues is quoting, changes or removal of the `send-pr` template, either by the user who edits the template or by mailers which do strange things to plain text messages. This does not happen a lot of the time, but it can be fixed with `edit-pr` too; it does require a bit of work from the developer who refiles the PR, but it is relatively easy to do most of the time.

4.5.3. Misfiled PRs that are not really problem reports

Sometimes a user wants to submit a report for a problem and sends a simple email message to GNATS. The GNATS scripts will recognize bug reports that are formatted using the send-pr(1) template. They cannot parse any sort of email though. This is why submissions of bug reports that are sent to <`freebsd-gnats-submit@FreeBSD.org`> have to follow the template of `send-pr`, but email reports can be sent to FreeBSD problem reports ####.

Developers that come across PRs that look like they should have been posted to freebsd-bugs or some other list should close the PR, informing the submitter in their state-change log why this is not really a PR and where the message should be posted.

The email addresses that GNATS listens to for incoming PRs have been published as part of the FreeBSD documentation, have been announced and listed on the web-site. This means that spammers found them. Spam messages that reach GNATS are promptly filed under the “pending” category until someone looks at them. Closing one of these with edit-pr(1) is very annoying though, because GNATS replies to the submitter and the sender's address of spam mail is never valid these days. Bounces will come back for each PR that is closed.

Currently, with the installation of some antispam filters that check all submissions to the GNATS database, the amount of spam that reaches the “pending” state is very small.

All developers who have access to the FreeBSD.org cluster machines are encouraged to check for misfiled PRs and immediately close those that are spam mail. Whenever you close one of these PRs, please do the following:

- Set Category to `junk`.
- Set Confidential to `no`.
- Set Responsible to yourself (and not, e.g., `freebsd-bugs`, which merely sends more mail).
- Set State to `closed`.

Junk PRs are not backed up, so filing spam mail under this category makes it obvious that we do not care to keep it around or waste disk space for it. If you merely close them without changing the category, they remain both in the master database and in any copies of the database mirrored through cvsup.

5.

######### PR ########################

- How to Write FreeBSD Problem Reports——# PR #########