

# Reporting R Bugs

Portland R User Group

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## How to

- Determine if you found a bug in R (or a package)
- Create a bug report
- Submit it to the right place
- Bask in the glory of having improved R (or a package)

“Bug” is very specific

- R crashes (exits)
- Behavior of function not consistent with documentation

# Minimal Example or Whose Bug is it Anyway?

*The present letter is a very long one, simply because I had no leisure to make it shorter.*

*Blaise Pascal, translated from French, Lettres Provinciales, XVI, 1656*

- Self contained executable R script
- Keep taking parts out until taking anything else out makes the problem go away
- Use included data (see datasets package)
- Try example in new R session
- Try example in new R --vanilla session
- Verify results against documentation
- Bonus: example very similar that does work

```
cut(strptime("2010-08-10 00:00:01", "%Y-%m-%d %H:%M:%S"), "5 hour")
```

```
x <- paste(letters, collapse="")
regex <- "([[:alpha:]]).*"
sub(regex, "\\1", x, perl=TRUE)
sub(regex, "\\3", x, perl=TRUE)
sub(regex, "\\2", x, perl=TRUE)
```

```
setClass("myenv", contains = "environment")
#[1] "myenv"
env <- new("myenv")
class(env)
#[1] "myenv"
#attr(,"package")
#[1] ".GlobalEnv"
env[["a"]] <- 343
class(env)
#[1] "environment"
```

## Bug report parts

- Short phrase describing problem (include function name and indication of what happens wrong)
- Short paragraph describing what goes wrong and how to make it go wrong (no speculation as to why)
- Minimal example, with alternatives
- Actual output
- Expected output
- Details: why the actual output is wrong, referencing documentation to support
- Output of `sessionInfo()`
- Optional: Where in the code things are going wrong
- Very optional: Patch to fix the code

# Where to send a bug

- What package is the function giving the error in?

```
> getAnywhere("sub")
A single object matching 'sub' was found
It was found in the following places
  package:base
  namespace:base
with value
...
```

- Who is responsible for that package?

```
> maintainer("base")
[1] "R Core Team <R-core@r-project.org>"
```

## Core package (maintainer: R Core Team)

- If you are not completely sure it is a bug
  - Post to r-help (r-help@r-project.org) asking for clarification why the output is what it is
  - Maybe it is a bug, maybe it is a misunderstanding
- If you are sure it is a bug
  - Scan or search r-devel to see if anyone else has already reported
  - Either
    - Post to r-devel (r-devel@r-project.org) using your short description as the subject line and the rest of the bug report as the body
    - File report at <https://bugs.r-project.org/bugzilla3/>
  - Still might be told that it is you that are wrong; be humble

## Non-core packages

- DON'T post to R-devel or R's bug tracker
- Check package description

```
> help(package="Hmisc")
```

- If there is a URL field, check that out for a bug reporting system
- If no URL, or no indication of how bugs are to be filed, send email to the address in the Maintainer field.



```
R Documentation for package 'Hmisc'
File Edit

Information on package 'Hmisc'

Description:

Package:      Hmisc
Version:      3.8-3
Date:        2010-06-22
Title:       Harrell Miscellaneous
Author:      Frank E Harrell Jr <f.harrell@vanderbilt.edu>, with contributions
             from many other users.
Maintainer:  Charles Dupont <charles.dupont@vanderbilt.edu>
Depends:     R (>= 2.4.0), methods, survival
Imports:     lattice, cluster, survival
Suggests:    lattice, grid, nnet, foreign, chron, acepack, TeachingDemos, Design,
             cluster, mice, subselect

Description:  The Hmisc library contains many functions useful for data analysis,
             high-level graphics, utility operations, functions for computing
             sample size and power, importing datasets, imputing missing values,
             advanced table making, variable clustering, character string
             manipulation, conversion of S objects to LaTeX code, and recoding
             variables. Please submit bug reports to
             'http://biostat.mc.vanderbilt.edu/trac/Hmisc'.

License:     GPL (>= 2)
LazyLoad:    Yes
URL:         http://biostat.mc.vanderbilt.edu/wiki/Main/Hmisc,
             http://biostat.mc.vanderbilt.edu/trac/Hmisc
Packaged:    2010-09-07 16:14:27 UTC; dupontct
Repository:  CRAN
Date/Publication: 2010-09-08 06:44:29
Built:       R 2.12.0; i386-pc-mingw32; 2010-10-19 13:38:19 UTC; windows
```