# Browsing and searching the Bioconductor codebase

BioC Developers' Forum - 20/08/2020 Mike Smith

# History lesson

- Bioconductor used to use Subversion (SVN) for version control
  - o https://hedgehog.fhcrc.org/bioconductor/trunk/madman/Rpacks/mypackage/
- Git <-> subversion bridge (I never used this)
  - Local git, remote SVN
- Mid 2017 started the transition to git.bioconductor.org
- SVN server retired (2018?)

# Subversion + git

- Subversion was mirrored to a read-only Github collection
- Both confusing and very helpful
  - You couldn't actually use the Github repo
  - But searching, browsing etc was available
- Easy to checkout all packages
  - o <u>https://hedgehog.fhcrc.org/bioconductor/trunk/madman/Rpacks/mypackage/</u>
  - Far fewer packages!
  - Browse & search locally

### Current status

- People have been asking for a way to view git server forever
  - $\circ$  ~ e.g BioC2020 BOF, emails from Feb 2018, ...
- Many packages are on Github
  - Some are active, others only for submission
  - Not easy to know if you're looking at 'current' code
- Hard (impossible?) to search for across all packages
  - e.g. every package calling a specific function

# http://bioc-code-tools.msmith.de/

- Prototype website to provide browsing & searching of all BioC packages
- Git browser using Gitlist
  - o <u>https://github.com/patrikx3/gitlist/</u>
- Code search using Zoekt
  - o https://github.com/google/zoekt
- Currently hosted on de.NBI cloud & my domain for convenience
- Clone of (most) BioC git repos, updates every 2 hours.



Show 25  $\vee$  entries

Search:

Package 🔶	Latest Commit
tximeta	2020-08-20 12:18:32 by mikelove to master 'fix readme'
MouseFM	2020-08-20 10:07:13 by matmu to master 'illegal version bump'
Qtlizer	2020-08-20 09:23:17 by Matthias Munz to master 'Update DESCRIPTION'
batchelor	2020-08-20 04:28:33 by LTLA to master 'Eliminate need for batch= when design= is set in regressBatches.'
MSstats	2020-08-20 02:05:18 by MeenaChoi to RELEASE_3_11 'fix error'
CBioPortalData	2020-08-19 23:04:26 by LiNk-NY to master 'version bump'
flowFP	2020-08-19 18:37:23 by Herb Holyst to master 'Fixing compatibility with R 4.0'
rWikiPathways	2020-08-19 18:17:15 by Alexander Pico to master 'release date fix'
flowCL	2020-08-19 17:35:22 by jmeskas to master 'changed maintainer's email'
BiocCheck	2020-08-19 17:31:04 by Martin Morgan to master 'mention instructions for removing large files from git'
rcellminer	2020-08-19 14:48:58 by Elloumi to RELEASE_3_11 'Merged origin master with local master'
ENmix	2020-08-19 14:42:11 by Zongli Xu to master ' <i>bugfix</i> '
POMA	2020-08-19 13:37:44 by pcastellanoescuder to master 'authors updated'
Intad	2020-08-19 07:18:11 by Konstantin Okonechnikov to master 'Include correlations from loops: step2'
■ <u>signatureSearch</u>	2020-08-19 06:42:49 by Yuzhu Duan to RELEASE_3_11 'note msigdb as special case, jump to 1.3.5'



Search tree					<b>x</b> Q
browsing: <b>master <del>-</del></b>	Files	🐉 Commits	Lui Log	侯 Graph	★ Stats
tximeta					
					RSS Download →
R		fix typo			5 weeks ago
inst		adding GENCODE 35 and Ensembl 101			46 minutes ago
🖿 man		fix typo			5 weeks ago
tests		fix alevin skipMeta bug			3 months ago
vignettes		adding tx_ids after summarization			2 months ago
🖹 .gitignore	42B	update to gencode 30/M21, ensembl 96			1 year, 3 months ago
CODE_OF_CONDUCT.md	3kB	add code of cond. and package man page	5		9 months ago
DESCRIPTION	1kB	adding GENCODE 35 and Ensembl 101			46 minutes ago
NAMESPACE	2kB	Add splitSE function			5 months ago
NEWS	6kB	adding tx_ids after summarization			2 months ago
README.md	7kB	fix readme			41 minutes ago



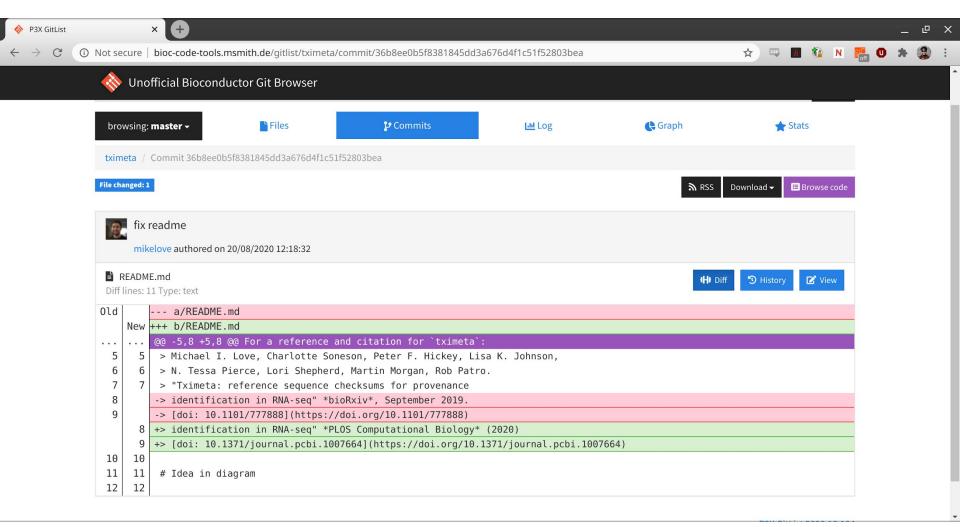
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← → C (③ Not secure | bioc-code-tools.msmith.de/gitlist/tximeta/blob/master/DESCRIPTION

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#### 🚸 Unofficial Bioconductor Git Browser

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tximeta / DESCRIPTION								
-								
*	Raw 🜢 Blame 🏷 History				A RSS Download →			
Sc	roll mode Full height							
	Package: tximeta				1			
	2 Version: 1.7.8							
	3 Title: Transcript Quantification Import with Automatic Metadata							
	4 Description: Transcript quantification import from Salmon and							
Ļ	5 alevin with automatic attachment of transcript ranges and							
6	6 release information, and other associated metadata. De novo							
	7 transcriptomes can be linked to the appropriate sources with							
	8 linkedTxomes and shared for computational reproducibility.							
	9 Authors@R: c(							
10								
11								
	<pre>2 person("Peter", "Hickey", role = c("aut","ctb")),</pre>							
13								
	4 Maintainer: Michael Love <michaelisaiahlove@gmail.com></michaelisaiahlove@gmail.com>							
	5 License: GPL-2							
16	6 VignetteBuilder: knitr							
17	7 Imports:							



# Still a work in progress

- Definitely still a prototype
  - Don't bookmark the URL yet!
- Would love to get feedback on whether these seem like a useful tool people would use
- Also interested in if things break, several other tools failed when scaling from 20 packages to 2000