The Year of IUC

Community we are!
Community means sustainability!
Tools

IUC
Who?

- Daniel Blankenberg, Galaxy Team, Penn State University
- Dave Bouvier, Galaxy Team, Penn State University
- Brad Chapman, Harvard School of Public Health
- Peter Cock, The James Hutton Institute
- Björn Grüning, University of Freiburg
- James Johnson, University of Minnesota
- Edward Kirton, U.S. Department of Energy
- Nicola Soranzo, Earlham Institute
- Eric Rasche, Texas A&M University
- Youri Hoogstrate, Erasmus Universiteit Rotterdam
- Marius van den Beek, Institute Curie Paris
- Anthony Bretaudeau, BIPAA/GenOuest Platforms
- Saskia Hiltemann, Erasmus University Medical Center
- Lance Parsons, Princeton University
- Bérénice Batut, University of Freiburg

https://github.com/galaxyproject/tools-iuc
Galaxy Intergalactic Utilities Commission Standards and Best Practices

With the extensive efforts developers from the IUC have put into developing tools over the years, we have tried to come up with some best practices that we would recommend to the community for their use.

Contents:

- Best Practices for Creating Galaxy Tools
  - Why you might read this
  - Definitions
  - Tools and Tool Development
    - Tools
    - ToolShed Readiness Checklist
  - Packages
    - Packages
  - Repository Layout
    - Github Repositories
    - .shed.yml
    - Toolshed Yaml File

https://galaxy-iuc-standards.readthedocs.io
Guidelines

PLANEMO

Command-line utility that assists Galaxy tool developers

- Linting (validate syntax)
- Testing (on locally installed software)
- Publishing to the ToolShed (via its API)
Survival of the fittest!
Survival of the fittest!
Tool Shed repositories maintained and developed by the Intergalactic Utilities Commission [https://wiki.galaxyproject.org/IUC](https://wiki.galaxyproject.org/IUC)

<table>
<thead>
<tr>
<th>Directory</th>
<th>Description</th>
<th>Date</th>
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<tbody>
<tr>
<td>data_managers</td>
<td>Merge pull request #1133 from nsoranzo/travis</td>
<td>14 days ago</td>
</tr>
<tr>
<td>datatypes</td>
<td>Add linting with flake8-import-order</td>
<td>16 days ago</td>
</tr>
<tr>
<td>deprecated</td>
<td>Clean-ups of HTSeq</td>
<td>19 days ago</td>
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<tr>
<td>macros</td>
<td>Add macros/read_group_macros.xml for Picard tools</td>
<td>17 days ago</td>
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<tr>
<td>packages</td>
<td>add deepTools-2.4.2</td>
<td>23 days ago</td>
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<tr>
<td>suites/suite_fasta_tools</td>
<td>Add --ensure_metadata --urls to planemo shed_lint. Fix many .shed.yml...</td>
<td>5 months ago</td>
</tr>
<tr>
<td>test_repositories</td>
<td>Update tool_dependencies.xml</td>
<td>a year ago</td>
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<tr>
<td>tool_collections</td>
<td>Merge pull request #893 from blankenberg/dm-no-dupe</td>
<td>2 months ago</td>
</tr>
<tr>
<td>tools</td>
<td>Merge pull request #1153 from galaxyproject/bcftools_call_1.3.2</td>
<td>4 days ago</td>
</tr>
<tr>
<td>visualizations/biojs-msa</td>
<td>Fixes #41 Include correct url root</td>
<td>2 years ago</td>
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Metagenomics

Add Qiime wrappers #431

Merged
erasche merged 599 commits into master from qiime on 18 May

Conversation 58  Commits 250+ Files changed 314

Add mothur wrappers #429

Merged
bgruening merged 44 commits into master from mothur on

Conversation 107 Commits 44 Files changed 270

Add wrapper for MetaPhlAn2 and a data manager for its database #1182

Merged
bgruening merged 19 commits into master from metaphlan2 on 4 Mar

Conversation 32 Commits 19 Files changed 27

30 more tools - http://github.com/ASaiM project poster 27!
Hitting the boundaries of CI!

Add Qiime wrappers #431
- Merged
- erasche merged 599 commits into master from qiime on 18 May
- Conversation 58
- Commits 250+
- Files changed 314

Add mothur wrappers #429
- Merged
- bgruening merged 44 commits into master from mothur on
- Conversation 107
- Commits 44
- Files changed 270

Use 3 build stages for Travis #1349
- Merged
- bgruening merged 4 commits into galaxyproject:master from nsoranzo:travis
- Conversation 19
- Commits 4
- Files changed 5

nsoranzo commented 21 days ago • edited
Support more communities!

galaxy-m

galaxy-c

galaxy-i

galaxy-nlp

galaxy-p

rnateam

galaxy-gis

galaxy-e
Is there more we can do?
### Galaxy Training!

Collection of tutorials developed and maintained by the worldwide Galaxy community.

The Galaxy Training Network helps researchers find online training material, and trainers in their geographic area, and helps advertise training events as well.

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<th>Lesson</th>
<th>Hands-on</th>
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<td>BioBlend module, a Python library to use Galaxy API</td>
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<td>Galaxy Code Architecture</td>
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Automatic tool use-training - TDT!
Fin!

Gitter: https://gitter.im/galaxy-iuc/iuc