

Mercurial for Galaxy Admins

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Hi.

Ry4an Brase

Two Audiences

Scientists

Computer Folks

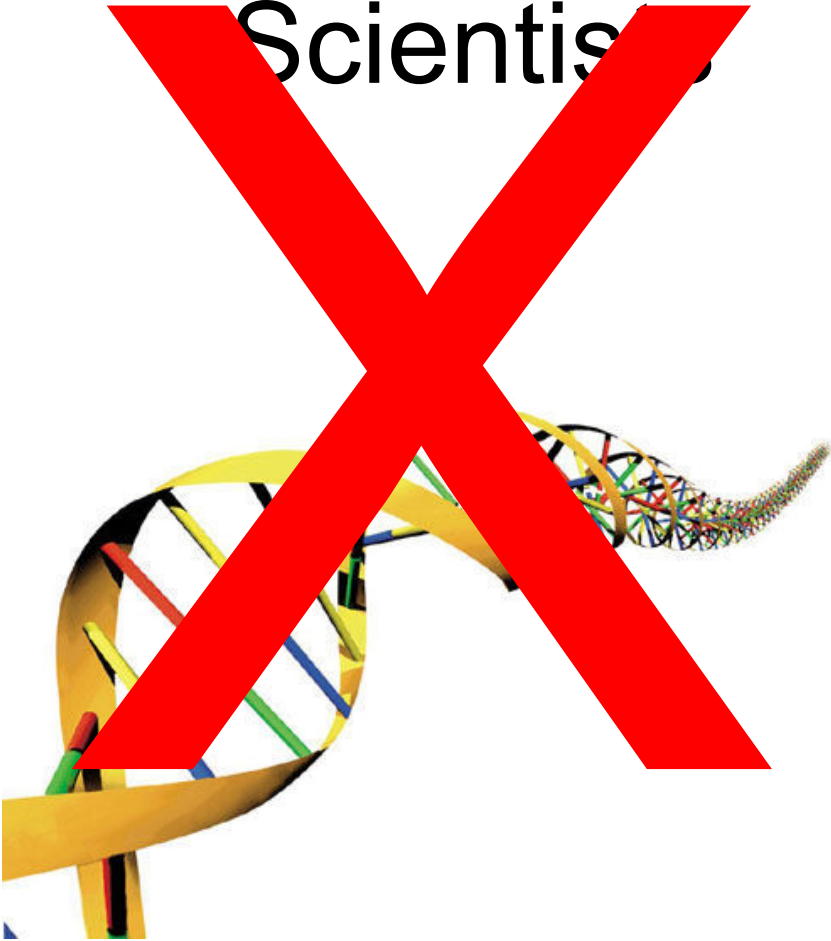


```
root@galaxy:~#
```

Two Audiences

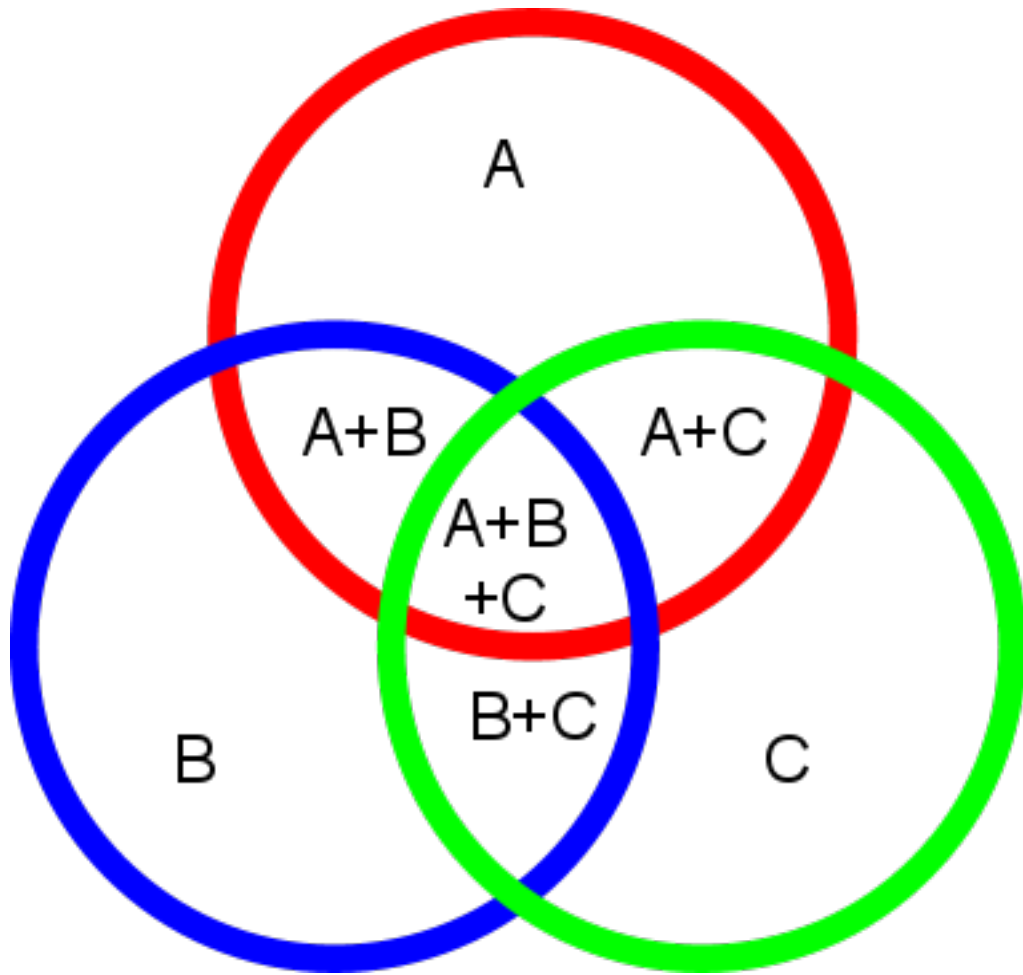
Scientists

Computer Folks



```
root@galaxy:~#
```

A Pleasant Diversion for the Scientists Ignoring This Talk



- A, B, C:
Ingredients
- A+B, A+C, B+C:
Eaten in some
culture
- A+C+B: eaten in
no cultures



mercurial

**Mercurial is:
Source Control**

Mercurial is:
Modern
Source Control

Mercurial is:
Modern,
Decentralized
Source Control

Mercurial is:
Modern,
Decentralized,
Delta-based
Source Control

Mercurial is:
Galaxy's
Modern,
Decentralized,
Delta-based
Source Control

Delta-Based vs. Snapshots

Snapshots

- Series of "Photos" of your work
- Let you see what your file looked like at time X
- rename = delete + add
- Actually Stored as Deltas

Deltas

- Series of changes to your work
- Also let you see what your file looked like at time X
- follows renames
- Composite-able

Merging

http://bitbucket.org/galaxy/galaxy-central/changesets

2010-05-15

Better UI flow for changing an HDA's data type. default tip

0 1 0

commit 3789: [11951fe9c714](#)

parent 3788: [00a558d5ad25](#)



Jeremy Goecks / [jgoecks](#)

about 12 hours ago

Enable images and binary datasets to work within the display framework. More work is needed to enable images to work well.

0 1 0

commit 3788: [00a558d5ad25](#)

parent 3787: [9ab8480354c7](#)



Jeremy Goecks / [jgoecks](#)

about 13 hours ago

2010-05-14

Fixes for editing tool information and submitting a tool for approval in the community space.

0 3 0

commit 3787: [9ab8480354c7](#)

parent 3786: [48432330228e](#)



Greg Von Kuster / [greg](#)

a day ago

Install Workflow

1. Clone from bitbucket
2. Make Local Changes
3. Run Galaxy

1. Clone from bitbucket

```
$ hg clone http://bitbucket.org/galaxy/galaxy-central  
destination directory: galaxy-central  
requesting all changes  
adding changesets  
adding manifests  
adding file changes  
added 3789 changesets with 17207 changes to 4176 files  
updating to branch default  
2691 files updated, 0 files merged, 0 files removed, 0 files  
unresolved
```

2. Make Local Changes

```
$ mv tool_conf.xml.sample  
   tool_conf.xml
```

```
$ vi tool_conf.xml
```

(repeat for universe_wsgi.ini, datatypes_conf.xml, etc.)

Checking For Updates

```
$ hg incoming
```

```
comparing with http://bitbucket.org/galaxy/galaxy-central
```

```
searching for changes
```

```
changeset: 3789:11951fe9c714
```

```
tag:      tip
```

```
user:     jeremy goecks
```

```
date:     Sat May 15 13:12:38 2010 -0400
```

```
summary:  Better UI flow for changing an  
          HDA's data type.
```

One-Time Prep. for Updates

```
$ vi .hgignore
```

```
# Config files
```

```
#universe_wsgi.ini
```

```
#reports_wsgi.ini
```

```
#datatypes_conf.xml
```

```
#tool_conf.xml
```

```
#static/welcome.html.*
```

```
$ hg rename --after tool_conf.xml.sample tool_conf.xml
```

Repeatable Upgrade Sequence

1. Commit Local Changes
2. Pull New Changes From Bitbucket
3. Merge in Changes

1. Commit Local Changes

```
$ hg status
```

```
M .hgignore
```

```
A tool_conf.xml
```

```
R tool_conf.xml.sample
```

```
$ hg commit -m 'Local Changes'
```

```
$ hg status
```

```
$ hg log -l 1
```

```
changeset: 3789:c566ef649733
```

```
user:      Ry4an Brase <ry4an@mini>
```

```
date:      Sun May 16 10:02:48 2010 -0500
```

```
summary:   Local Changes
```

2. Pull New Changes from BB

```
$ hg pull
```

```
pulling from http://bitbucket.org/galaxy/ga...
```

```
searching for changes, adding changesets
```

```
adding manifests, adding file changes
```

```
added 1 changesets with 1 changes to 1 files (+1 heads)
```

```
(run 'hg heads' to see heads, 'hg merge' to merge)
```

```
$ hg heads --style=compact
```

```
3790:3788 11951fe9c714 2010-05-15 13:12 -0400 jeremy
```

```
  Better UI flow for changing an HDA's data type.
```

```
3789 c566ef649733 2010-05-16 10:02 -0500 ry4an
```

```
  Local Changes
```


A Better Look At Both Heads

\$ hg serve ; chromium http://localhost:8000



log

graph

tags

branches

changeset

browse

/home/ry4an/galaxy-central

graph

Better UI flow for changing an HDA's da
22 hours ago, by jeremy goecks

Local Changes
15 minutes ago, by Ry4an Brase

Enable images and binary datasets to w
work is needed to enable images to wori
23 hours ago, by jeremy goecks

Fixes for editing tool information and su
community space.
47 hours ago, by Greg Von Kuster

3. Merge in Changes

```
$ hg merge
```

```
1 files updated, 0 files merged, 0 files removed, 0 files  
unresolved
```

```
(branch merge, don't forget to commit)
```

```
$ hg commit -m 'merged in from central'
```

```
$ hg heads
```

```
changeset: 3791:6f1590e8cb9a
```

```
parent: 3789:c566ef649733
```

```
parent: 3790:11951fe9c714
```

```
user: Ry4an Brase <ry4an@mini>
```

```
date: Sun May 16 10:29:01 2010 -0500
```

```
summary: merged in from central
```

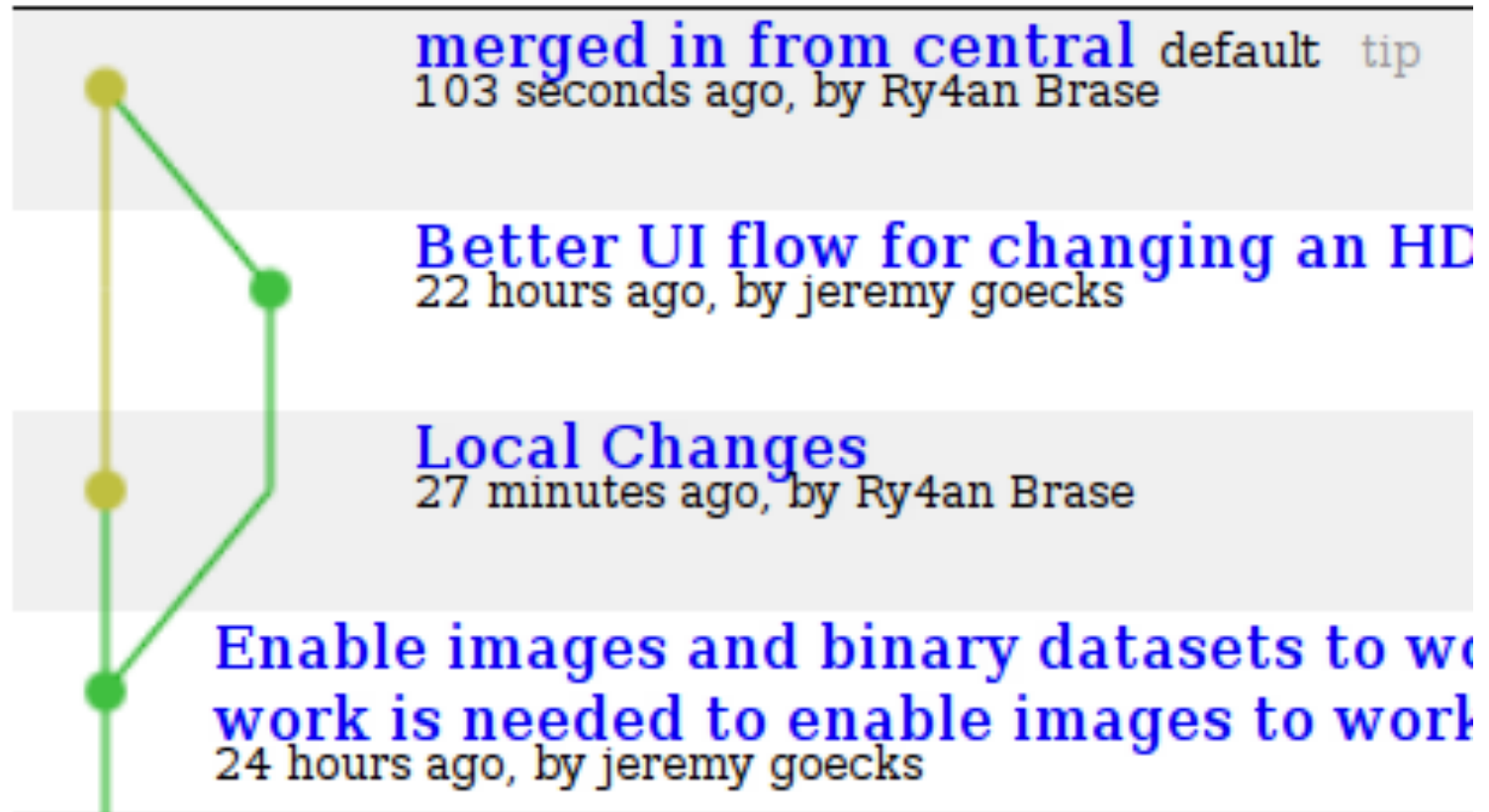
A Better Look At The Merge



/home/ry4an/galaxy-central

graph

- log
- graph**
- tags
- branches
- changeset
- browse



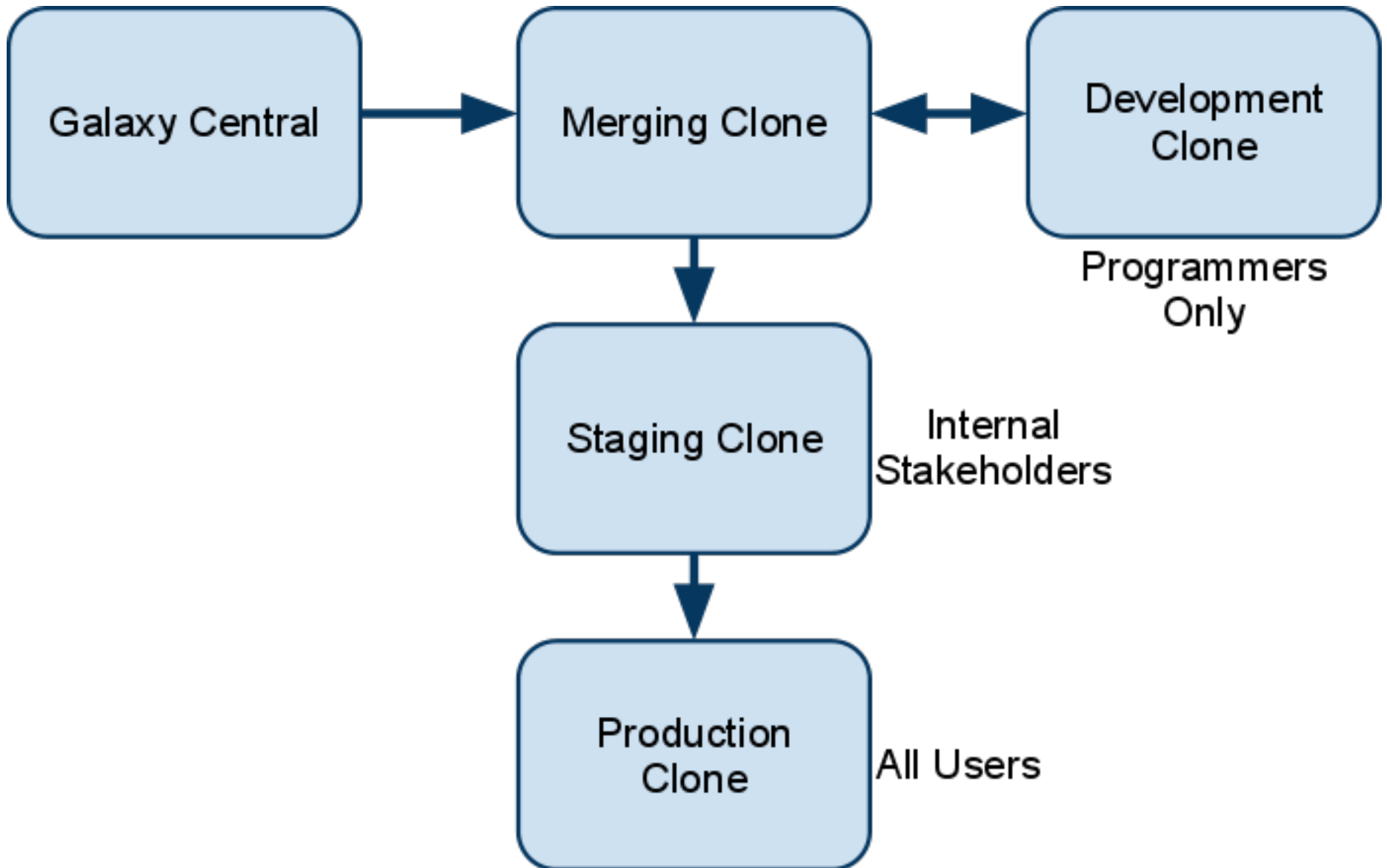
Merge Conflict!

```
File Edit View Global Region Line Options Display Windows User Help
if trans.app.security_agent.can_access_dataset( current_user_roles, data.dataset ):
    if data.state == trans.model.Dataset.states.UPLOAD:
        return trans.show_error_message( "Please wait until this dataset finishes uploading before attempting to edit: " + data.name )
    params = util.Params( kwd, sanitize=False )
    if params.change:
        # The user clicked the Save button on the 'Change data type' form
        if data.datatype.allow_datatype_change and trans.app.datatypes_registry.get_datatype_by_extension( params.data ):
            #prevent modifying datatype when dataset is queued or running as input/output
            if not __ok_to_edit_metadata( data.id ):
                return trans.show_error_message( "This dataset is currently being used as input or output. You cannot modify its type." )
            trans.app.datatypes_registry.change_datatype( data, params.datatype )
            trans.sa_session.flush()
        return trans.show_ok_message( "Changed the type of dataset '%s' to %s" % ( data.name, params.datatype ), r

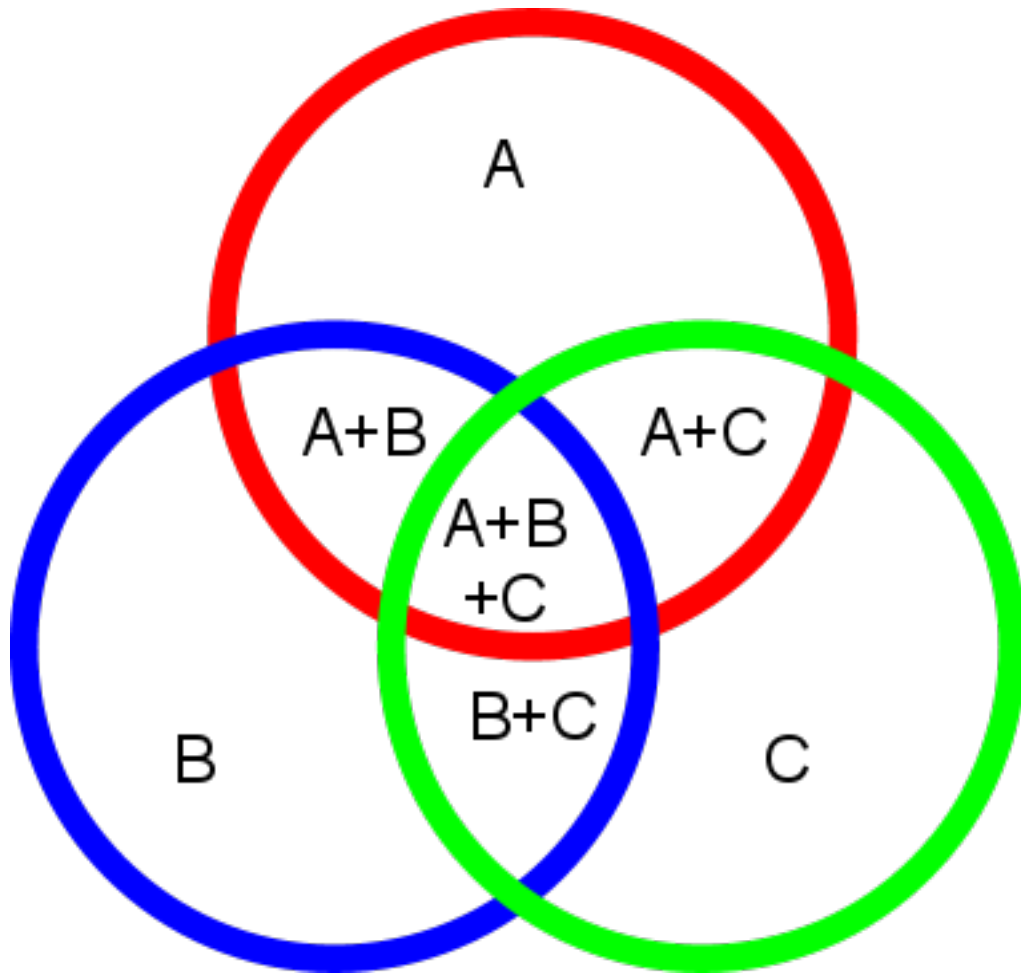
else:
```

local	base	other
279	278	279
#prevent modifying datatype when dataset is queued or running as input/output	#prevent modifying datatype when dataset is queued or running as input/output	#prevent modifying datatype when dataset is queued or running as input/output
if not __ok_to_edit_metadata(data.id):	if not __ok_to_edit_metadata(data.id):	if not __ok_to_edit_metadata(data.id):
return trans.show_error_message("This dataset is currently being used as input or output. You cannot modify its type.")	return trans.show_error_message("This dataset is currently being used as input or output. You cannot modify its type.")	return trans.show_error_message("This dataset is currently being used as input or output. You cannot modify its type.")
trans.app.datatypes_registry.change_datatype(data, params.datatype)	trans.app.datatypes_registry.change_datatype(data, params.datatype)	trans.app.datatypes_registry.change_datatype(data, params.datatype)
trans.sa_session.flush()	trans.sa_session.flush()	trans.sa_session.flush()
return trans.show_ok_message("Ry4an changed the type of dataset '%s' to %s" % (data.name, params.datatype), r	return trans.show_ok_message("Changed the type of dataset '%s' to %s" % (data.name, params.datatype), r	return trans.show_ok_message("Changed the type of dataset '%s' to %s" % (data.name, params.datatype), r
else:	else:	else:
return trans.show_error_message("You are not allowed to change the type of dataset '%s'." % data.name)	return trans.show_error_message("You are not allowed to change the type of dataset '%s'." % data.name)	return trans.show_error_message("You are not allowed to change the type of dataset '%s'." % data.name)
params.save:	params.save:	params.save:
# The user clicked the Save button on the 'Change data type' form	# The user clicked the Save button on the 'Change data type' form	# The user clicked the Save button on the 'Change data type' form
data.name = params.name	data.name = params.name	data.name = params.name
data.info = params.info	data.info = params.info	data.info = params.info
message = ''	message = ''	message = ''
__ok_to_edit_metadata(data.id):	__ok_to_edit_metadata(data.id):	__ok_to_edit_metadata(data.id):
# The following for loop will save all metadata for name_spec in data.datatype.metadata_spec	# The following for loop will save all metadata for name_spec in data.datatype.metadata_spec	# The following for loop will save all metadata for name_spec in data.datatype.metadata_spec

Changeset Flow



A Pleasant Diversion for the Scientists Ignoring This Talk



- A=Chocolate
- B=Cheese
- C=Beer
- A+B=Cheese-cake
- A+C=Stout
- B+C=Soup
- A+B+C=*horrid*