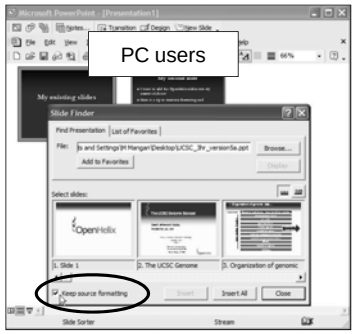
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Galaxy

Galaxy

Materials prepared by:
Warren C. Lathe III, Ph.D.
www.openhelix.com

Updated: Q4 2010

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Version 2

Galaxy Agenda

- Introduction and Credits
- Interface
- Getting Data
- Preparing Data
- Analyzing Data
- Histories & Workflows
- Summary
- Exercise

Galaxy: http://galaxy.psu.edu/

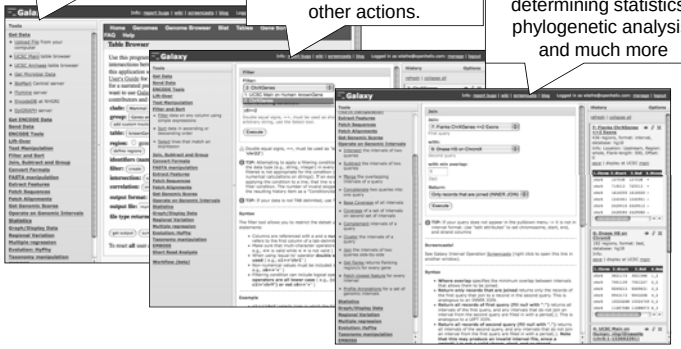
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Galaxy Conceptual Framework

Obtain data from many data sources including the UCSC Table Browser, BioMart, WormBase, or your own data.

Prepare data for further analysis by rearranging or cutting data columns, filtering data and many other actions.

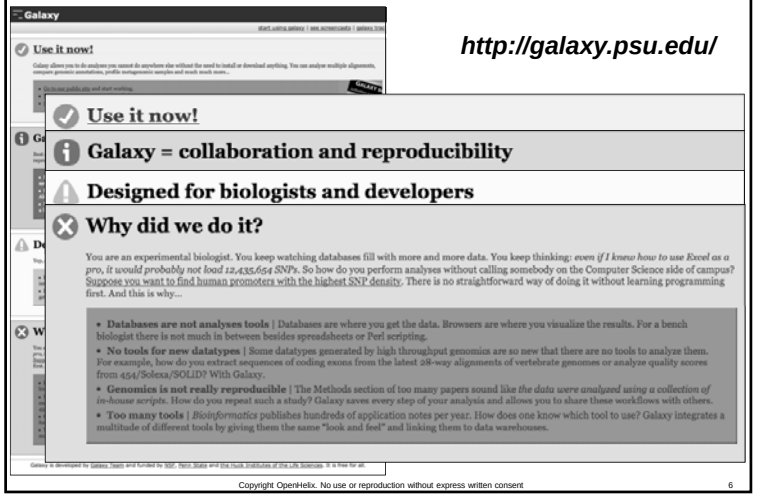
Analyze data by finding overlapping regions, determining statistics, phylogenetic analysis and much more



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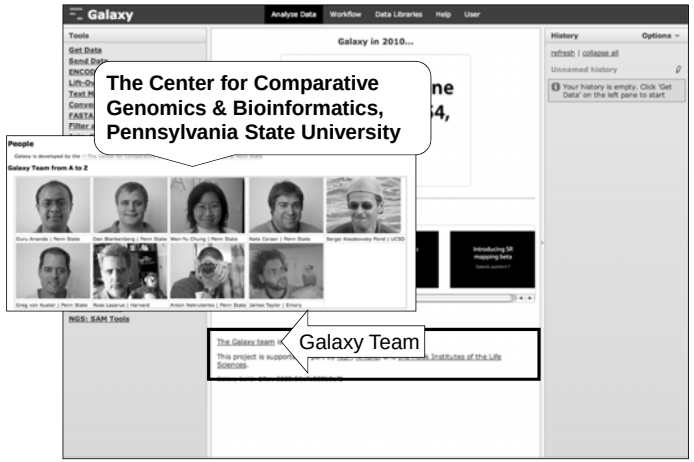
Galaxy Start

http://galaxy.psu.edu/



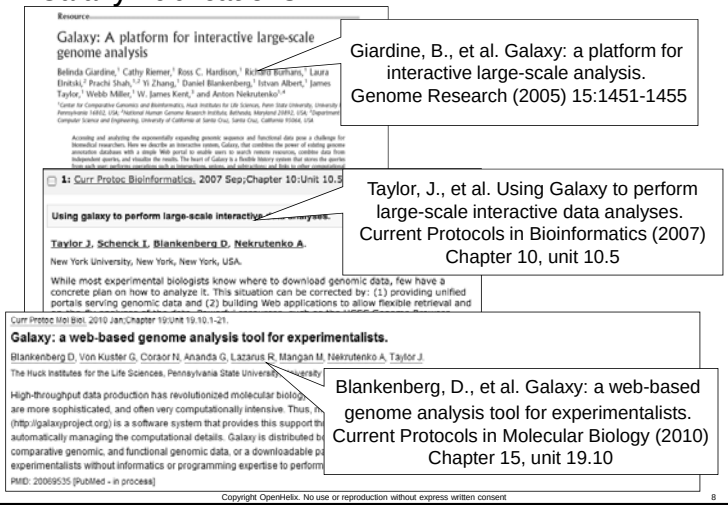
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Galaxy Team



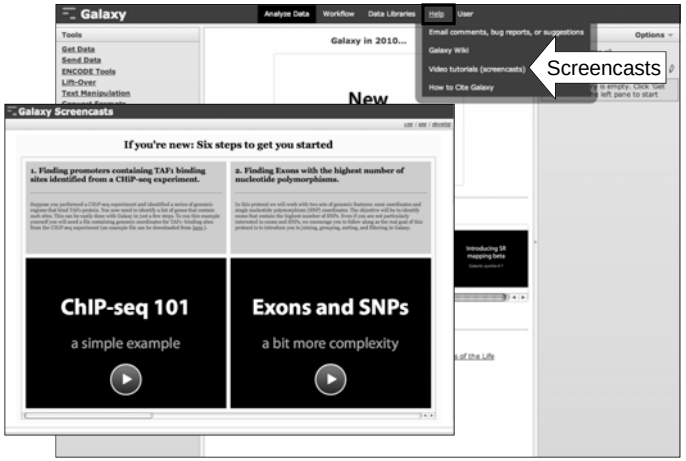
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Galaxy Publications



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Galaxy Screencasts



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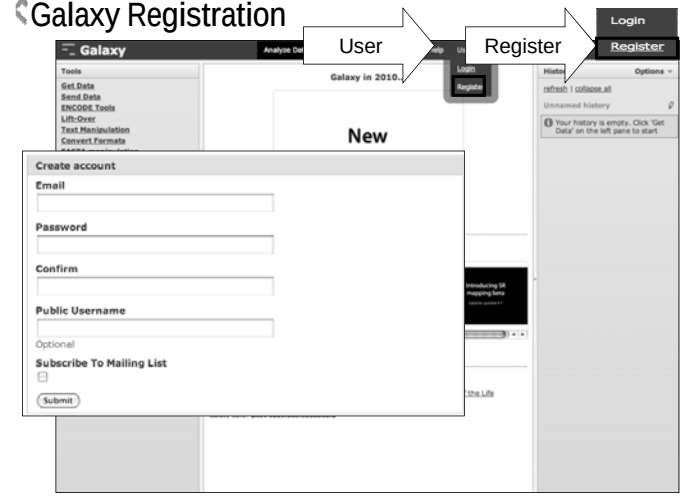
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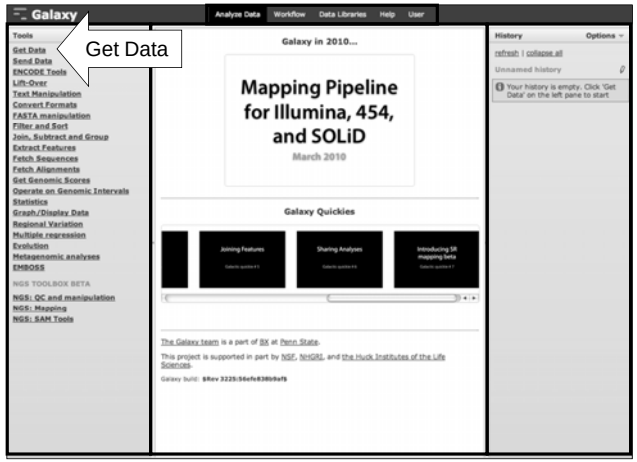
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Galaxy Registration



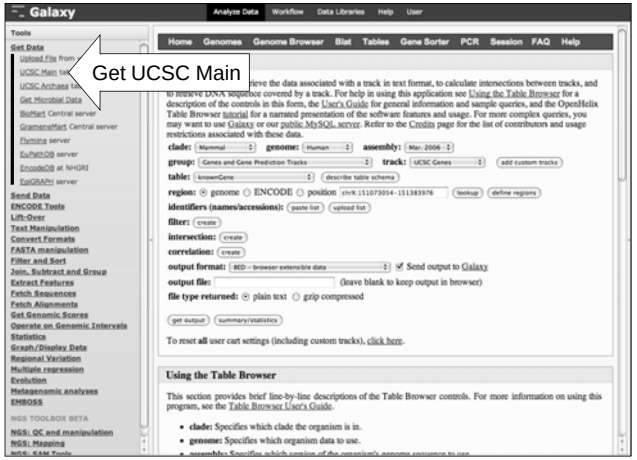
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Galaxy Interface Sections



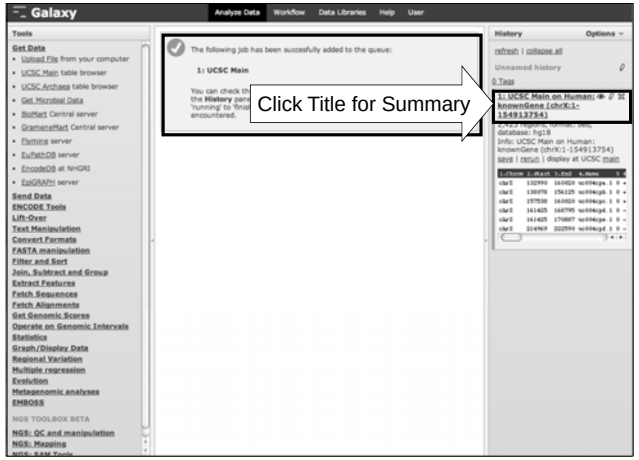
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Galaxy Interface Behavior



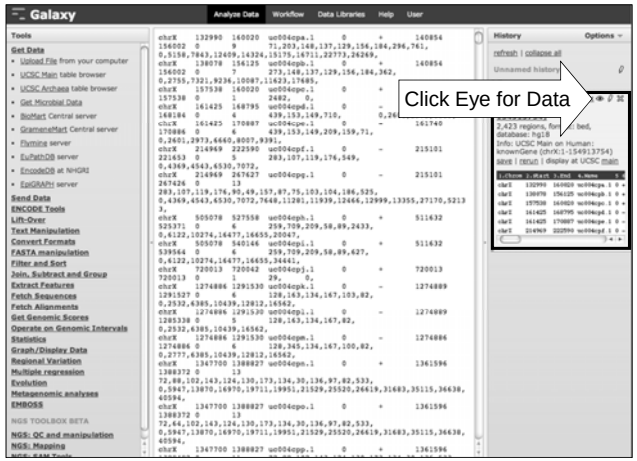
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Data Uploaded



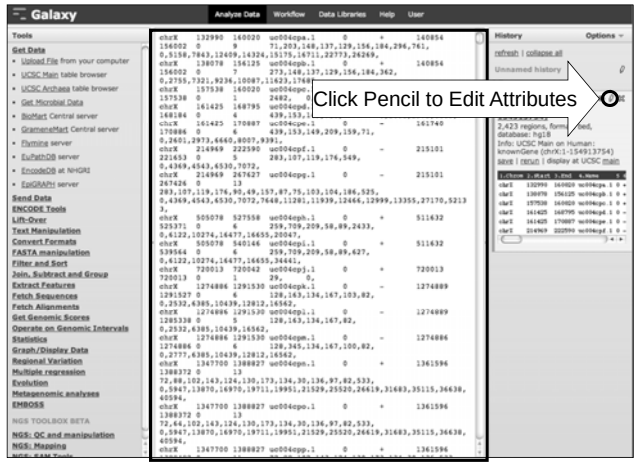
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View Summary



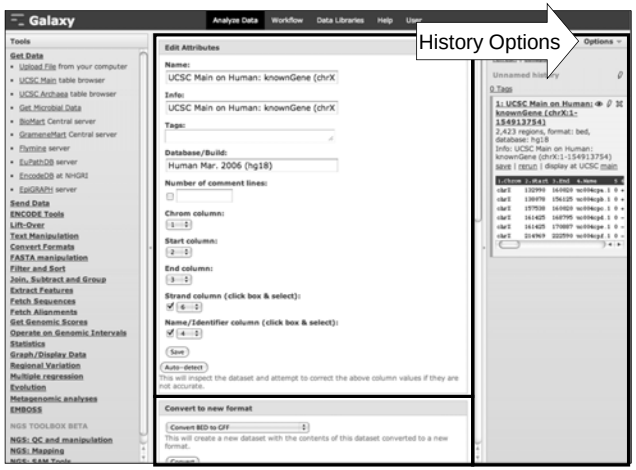
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View Data



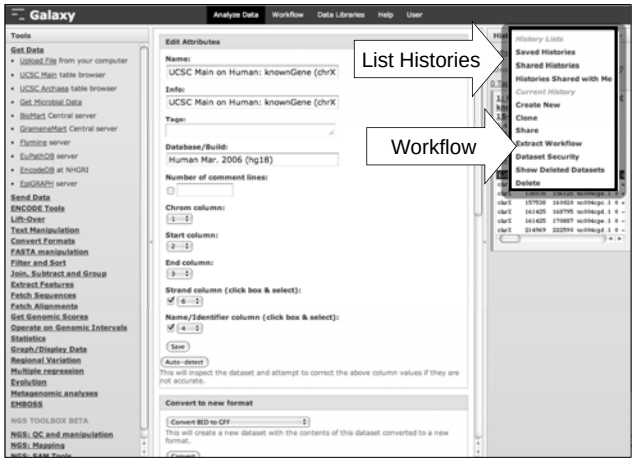
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Edit Attributes



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History and Workflow



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Getting Data



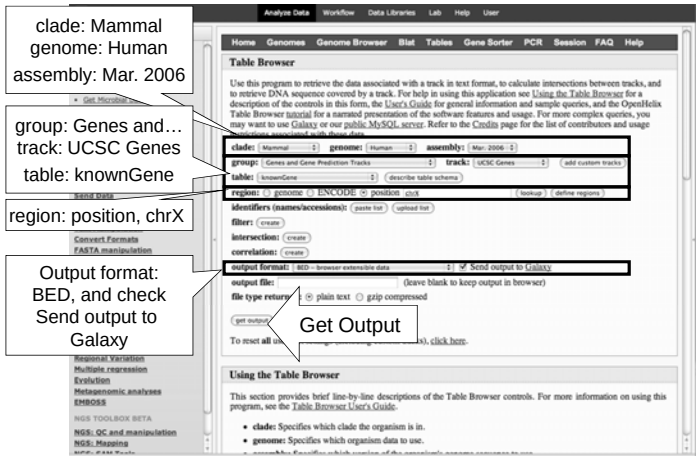
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Getting Data: Table Browser



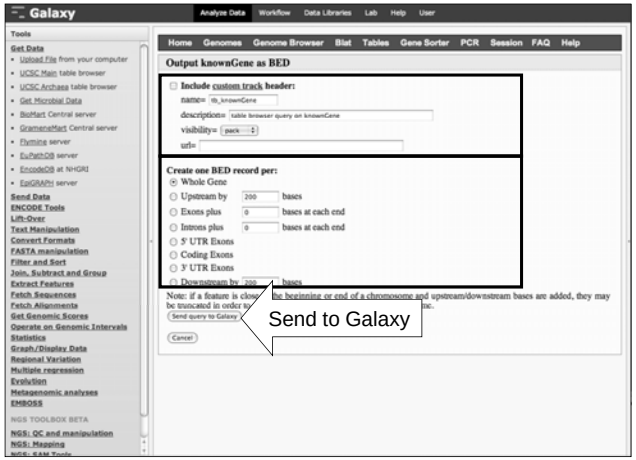
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Getting Data: UCSC Table Browser



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Getting Data: Send Table Results to Galaxy



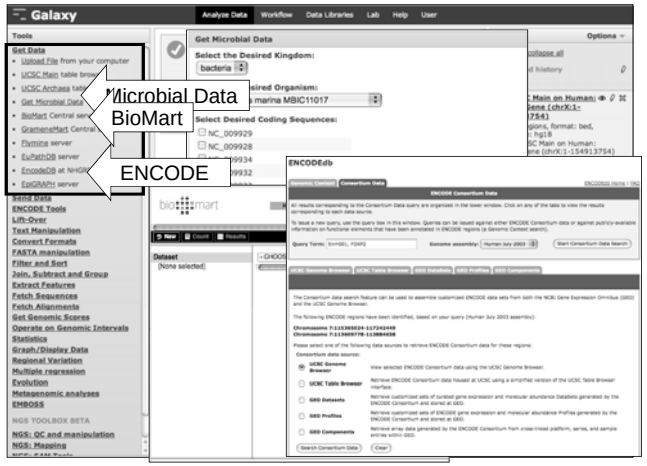
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Getting Data: UCSC Table Browser Results



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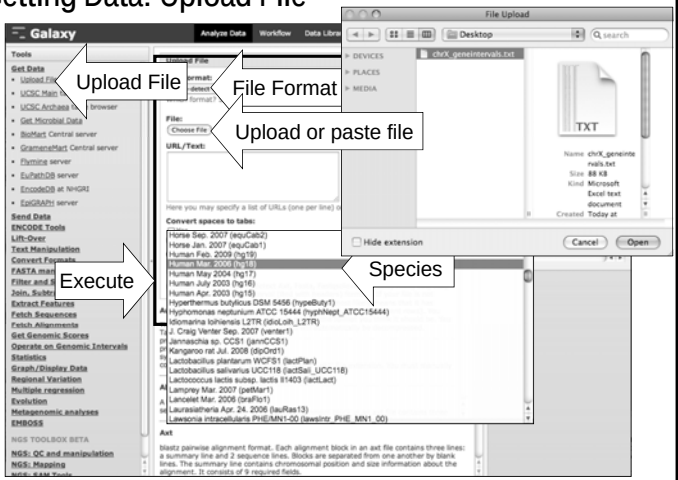
Getting Data: Additional Data Sources



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Getting Data: Upload File

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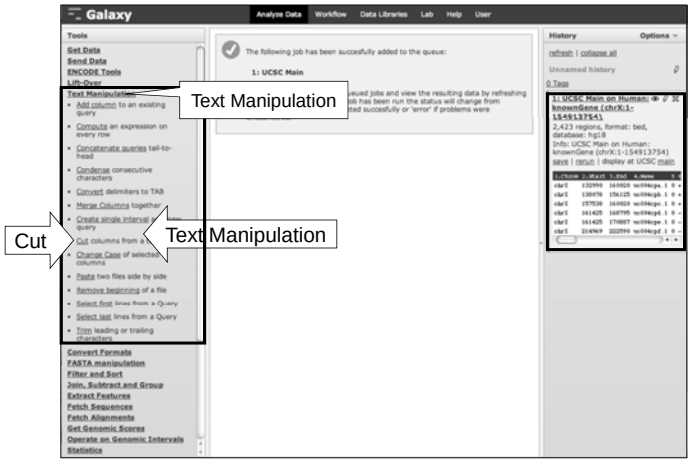
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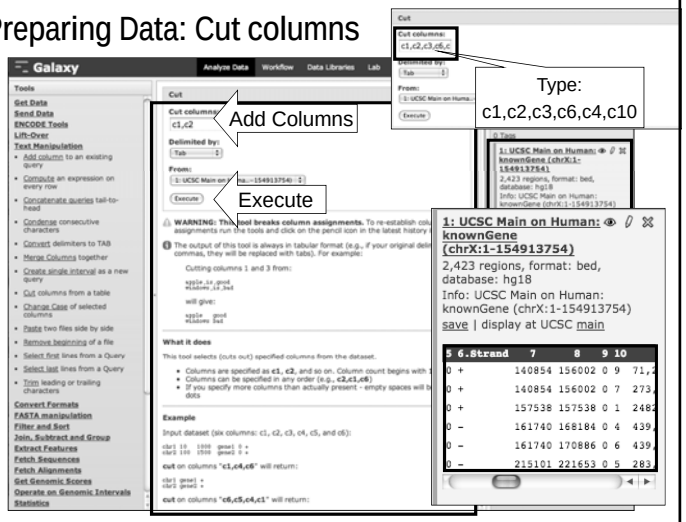
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Preparing Data: Text Manipulation



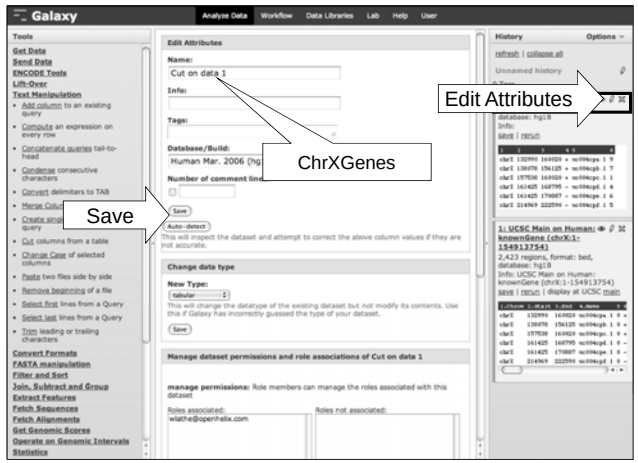
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Preparing Data: Cut columns



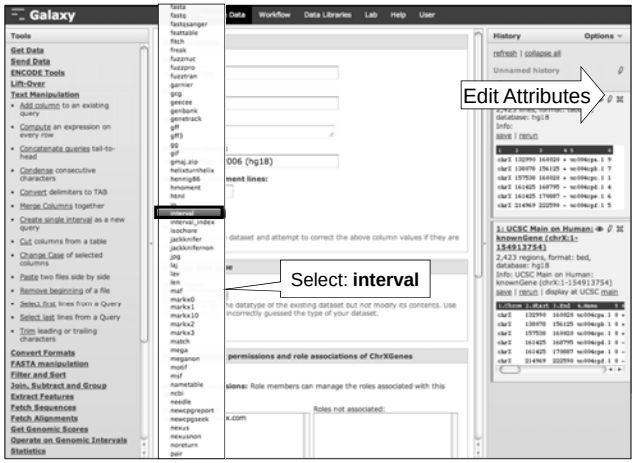
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Preparing Data: Change Attributes



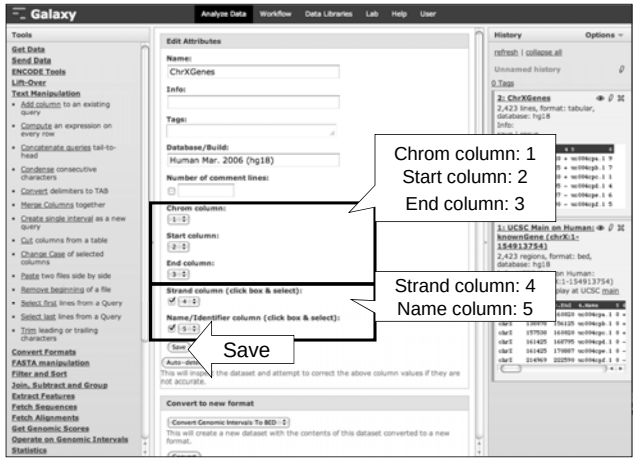
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Preparing Data: Change Format



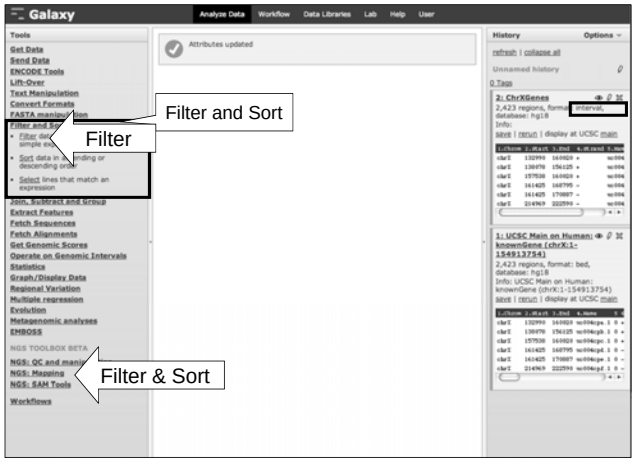
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Preparing Data: Select Columns



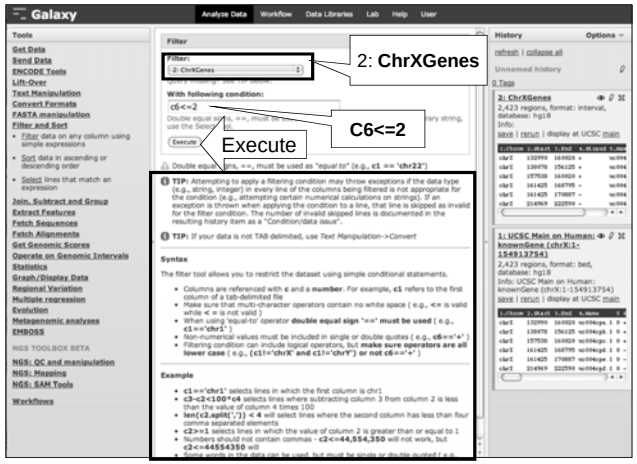
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Preparing Data: Filtering and Sorting



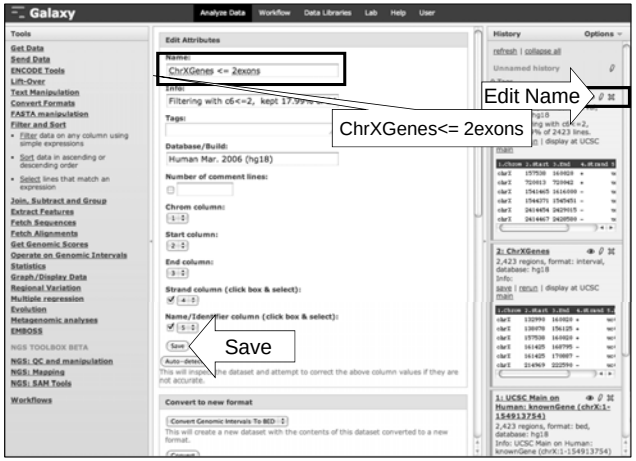
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Preparing Data: Filter on Column



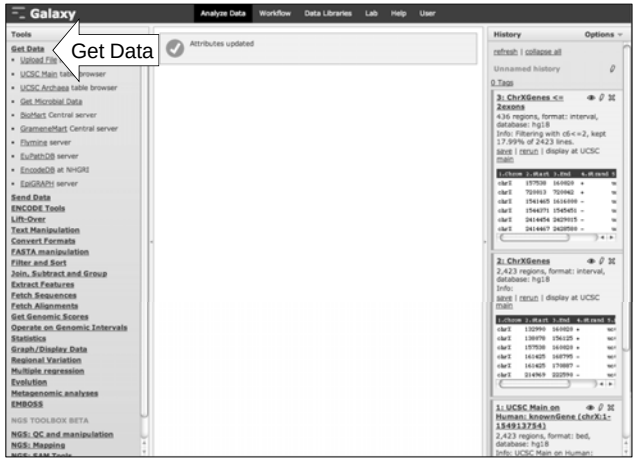
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Preparing Data: Change Name



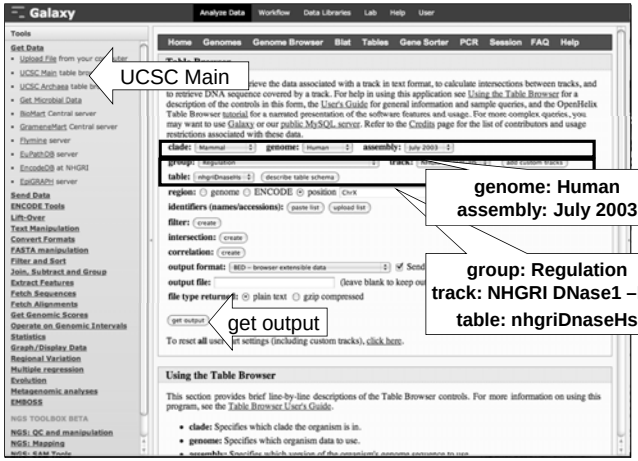
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Preparing Data: Download second dataset



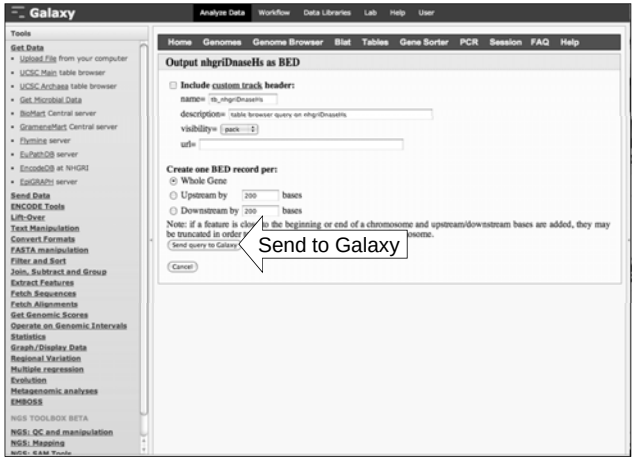
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Preparing Data: Download second dataset



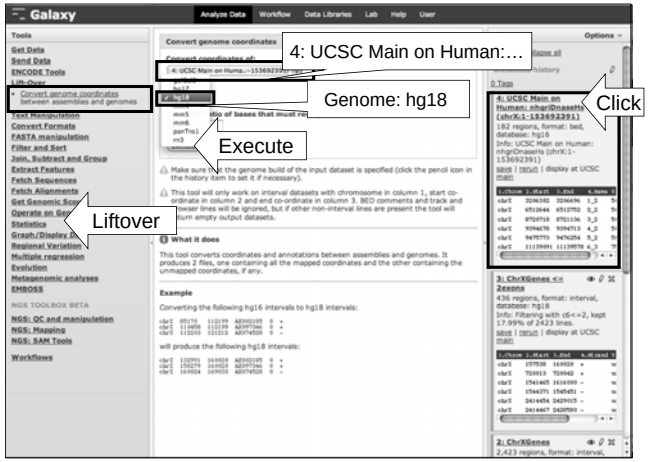
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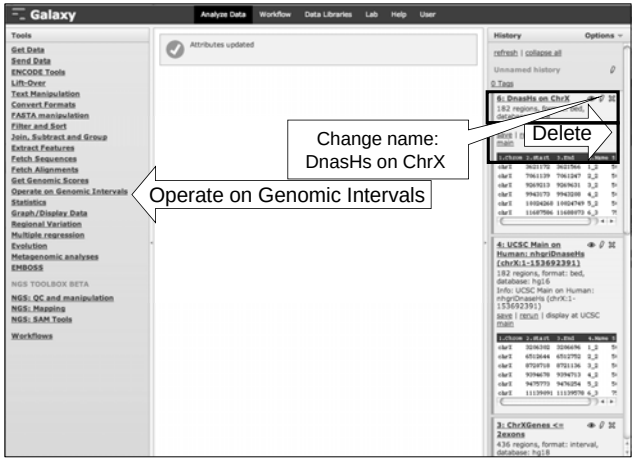
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Preparing Data: Liftover



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Preparing Data: Change Name



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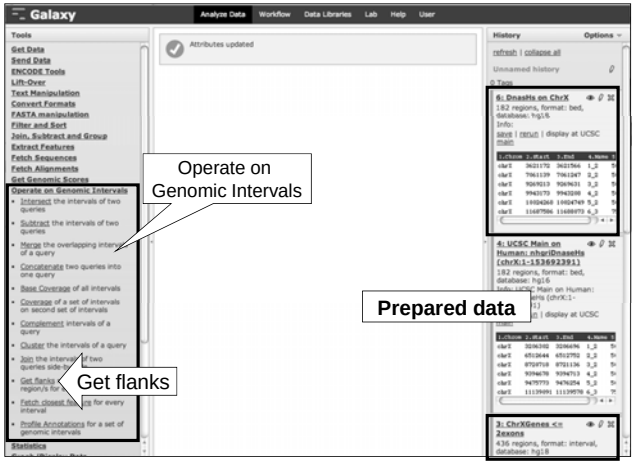
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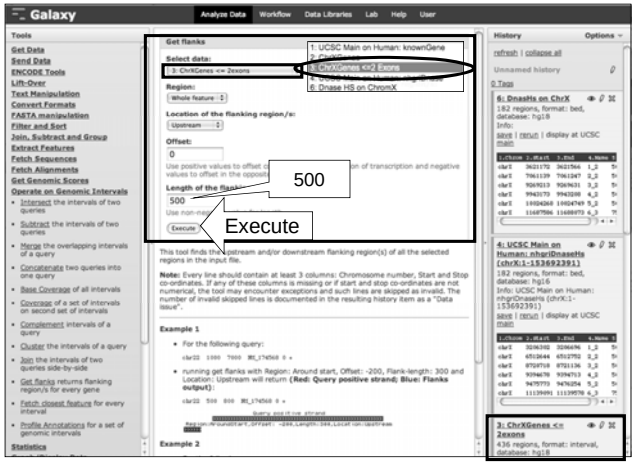
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Analyzing Data: Getting Flanking regions



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Analyzing Data: Flanking regions



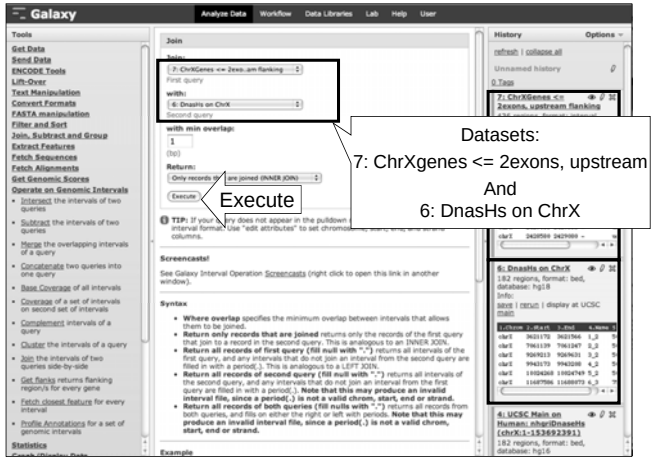
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Analyzing Data: Joining Two Datasets



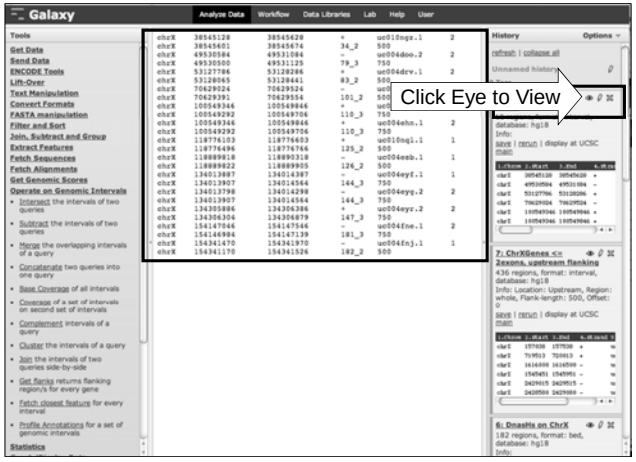
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Analyzing Data: Joining Two Datasets



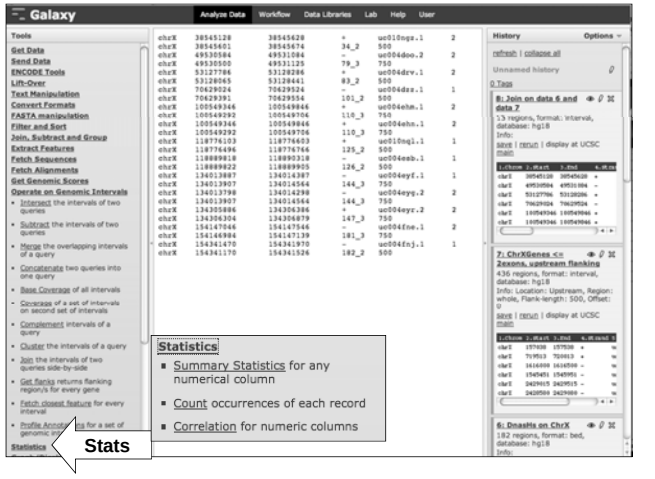
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Analyzing Data: Viewing Data Analysis



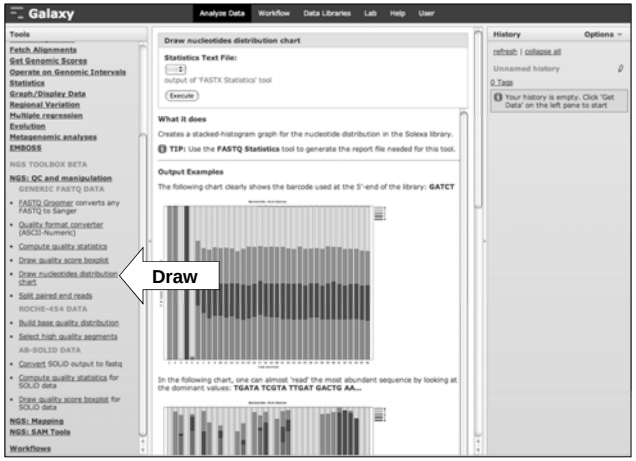
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Analyzing Data: Many Analysis Tools



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Analyzing Data: Next Generation Sequencing



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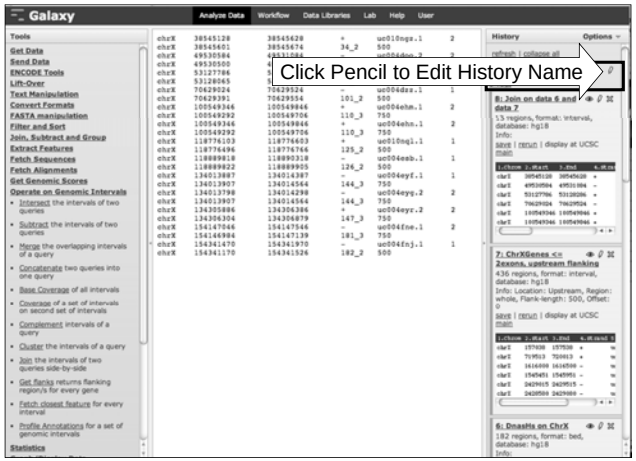
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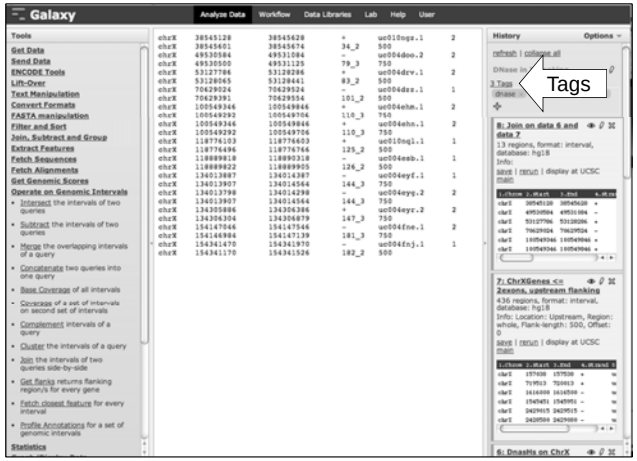
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History: Name History



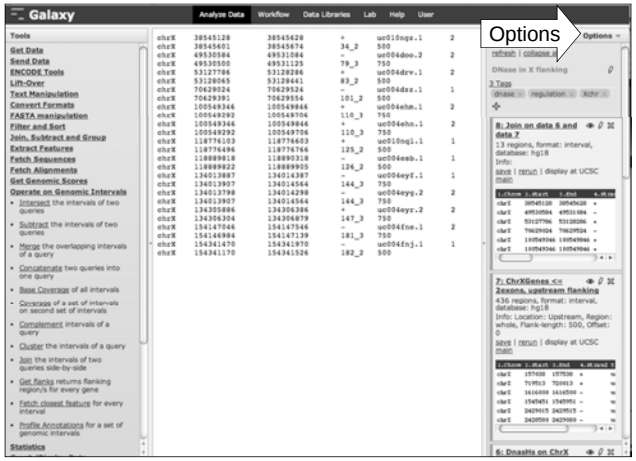
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History: Name History & Add Tags



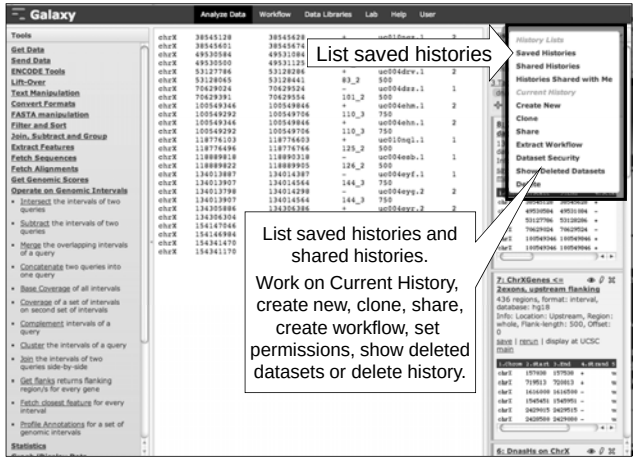
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History: Name History



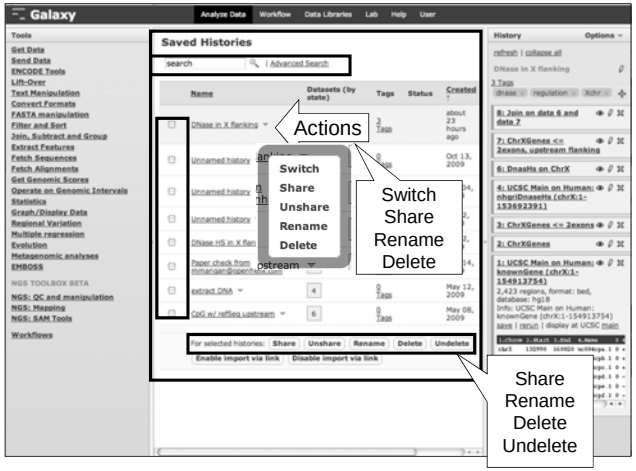
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History: History Options



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History: Saved Histories



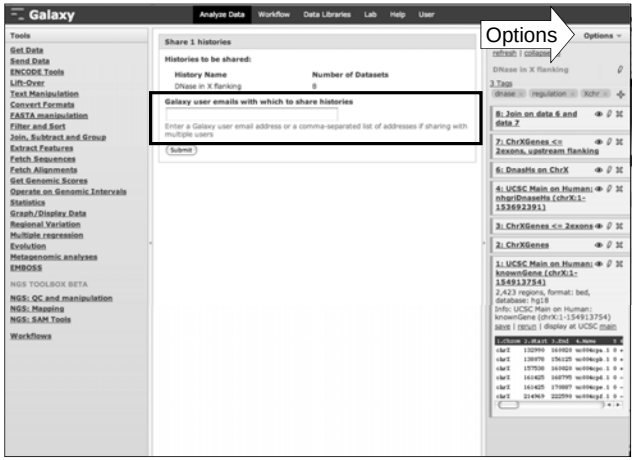
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History: Share, Rename, Delete History



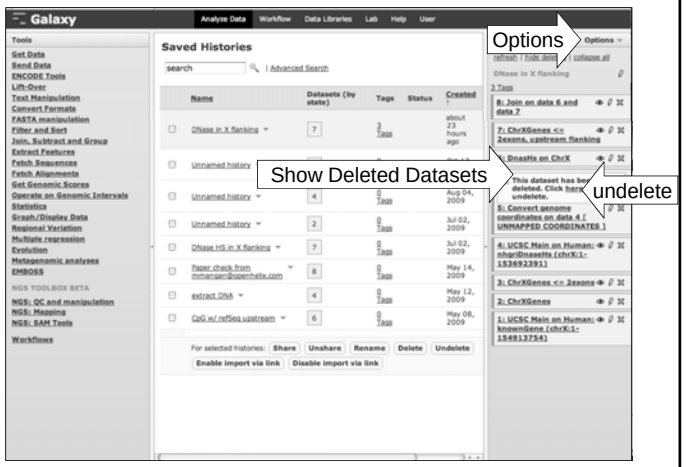
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History: Share History



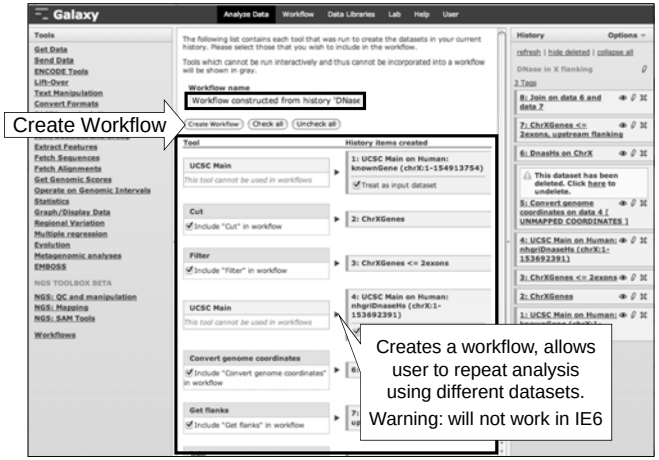
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History: View Deleted Datasets



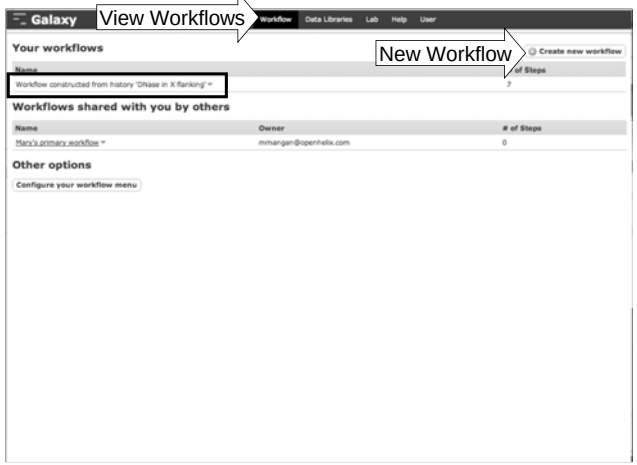
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Workflow: Create Workflow from History



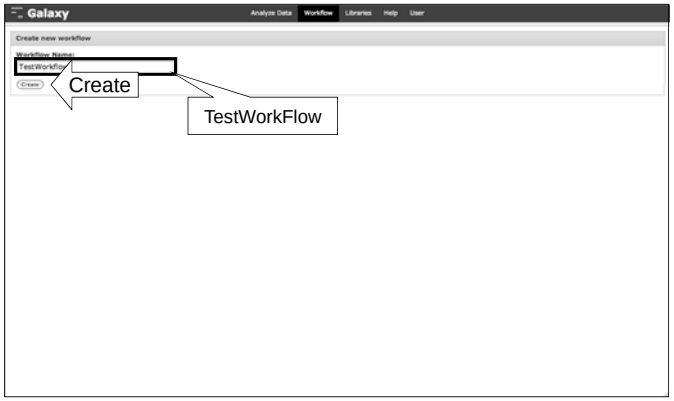
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Workflow: View and Run Workflows



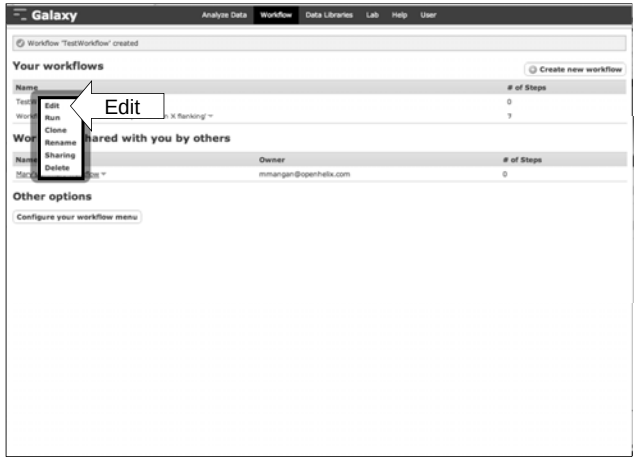
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Workflow: Create New Workflow



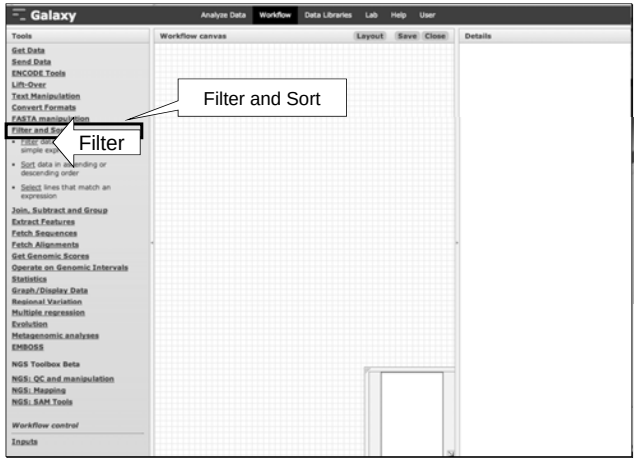
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Workflow: Edit Workflow



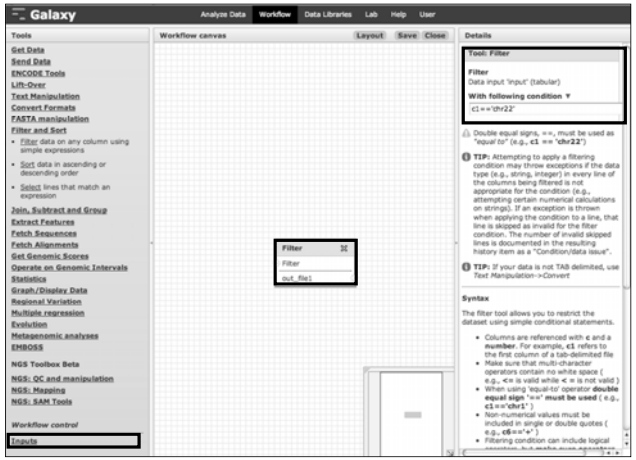
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Workflow: Add Filter



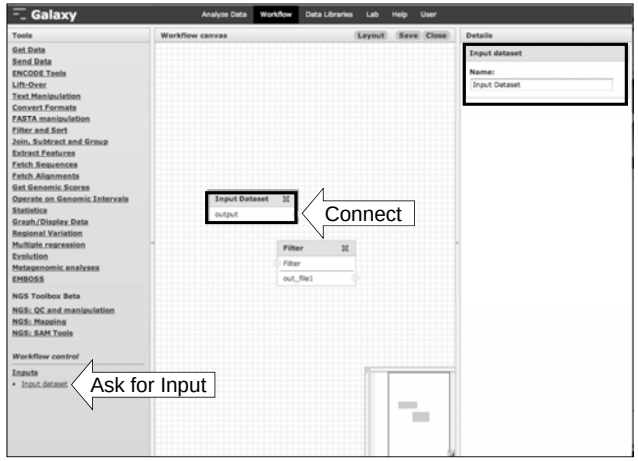
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Workflow: Workflow Layout



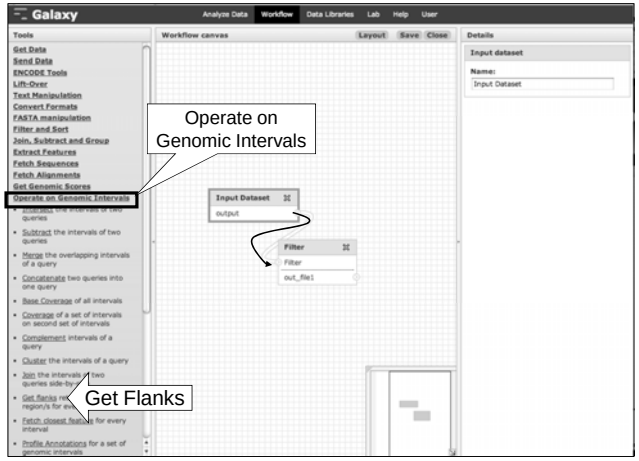
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Workflow: Input Data and Connect Steps



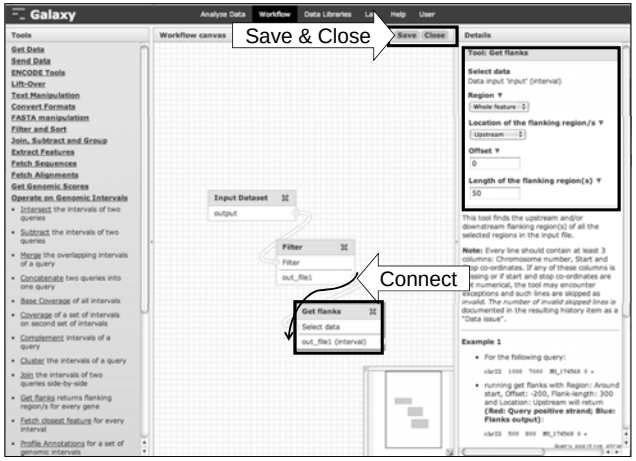
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Workflow: Add Additional Steps, Flanks



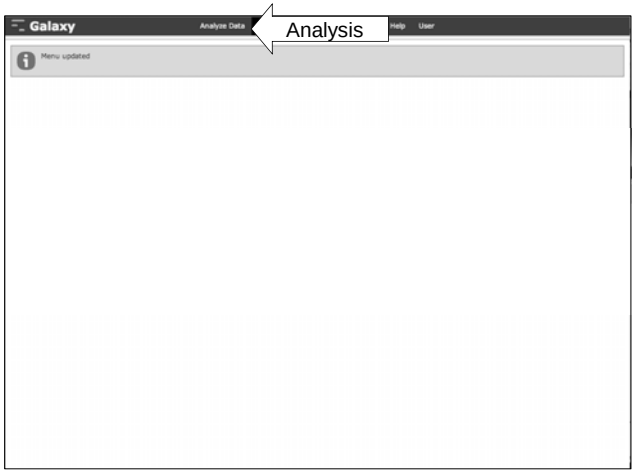
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Workflow: Save and Close



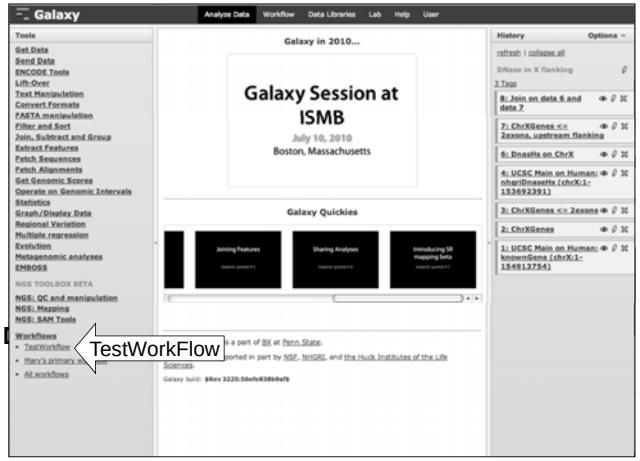
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Workflow: Add to Menu



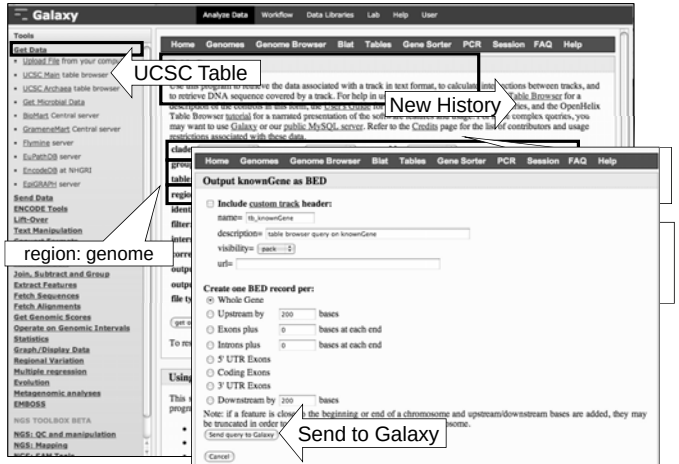
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Workflow: View from Menu



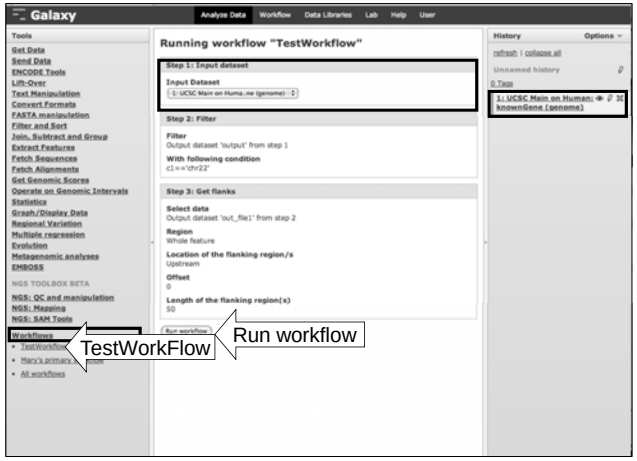
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Workflow: Add Dataset Input



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Workflow: Run Workflow



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Workflow: Get Resulting Data!



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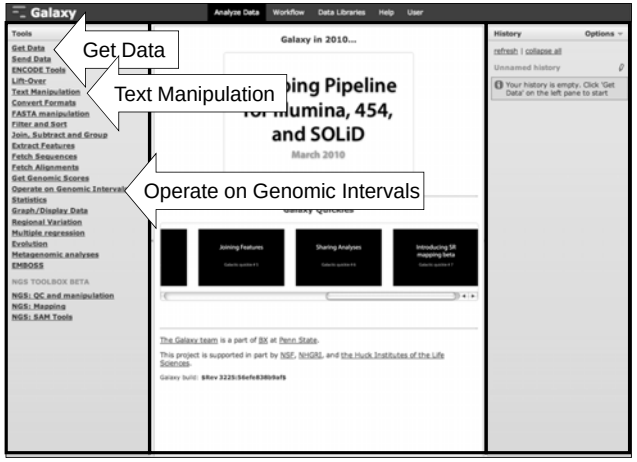
Galaxy Agenda

- Introduction and Credits
- Interface
- Getting Data
- Preparing Data
- Analyzing Data
- Histories & Workflows
- Summary
- Exercise

Galaxy: http://galaxy.psu.edu/

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Galaxy Interface



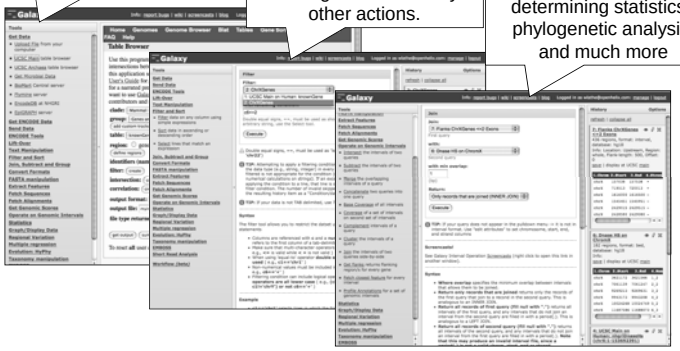
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Galaxy

Obtain data from many data sources including the UCSC Table Browser, BioMart, WormBase, or your own data.

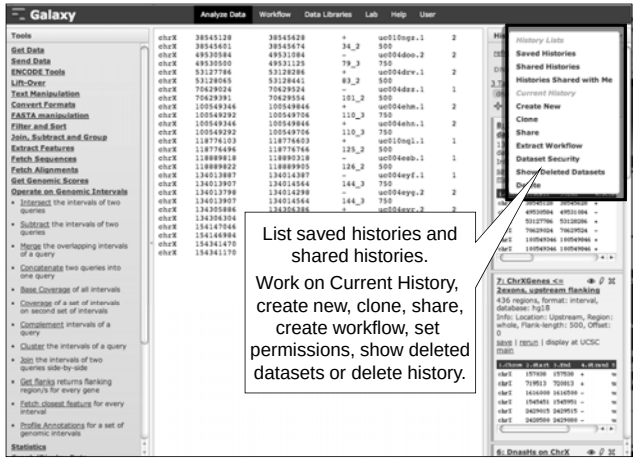
Prepare data for further analysis by rearranging or cutting data columns, filtering data and many other actions.

Analyze data by finding overlapping regions, determining statistics, phylogenetic analysis and much more



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Histories

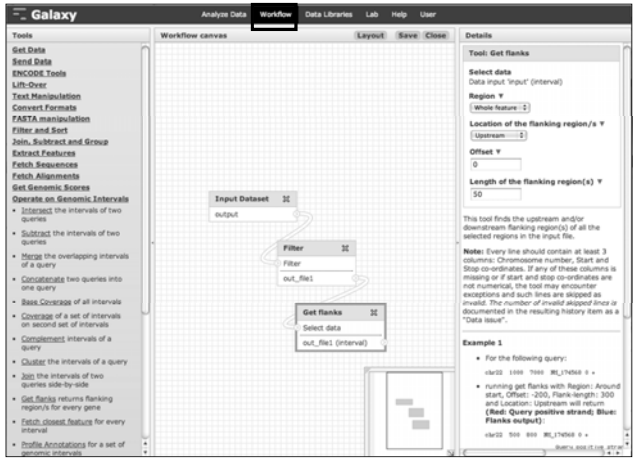


List saved histories and shared histories.

Work on Current History, create new, clone, share, create workflow, set permissions, show deleted datasets or delete history.

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Workflows



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