

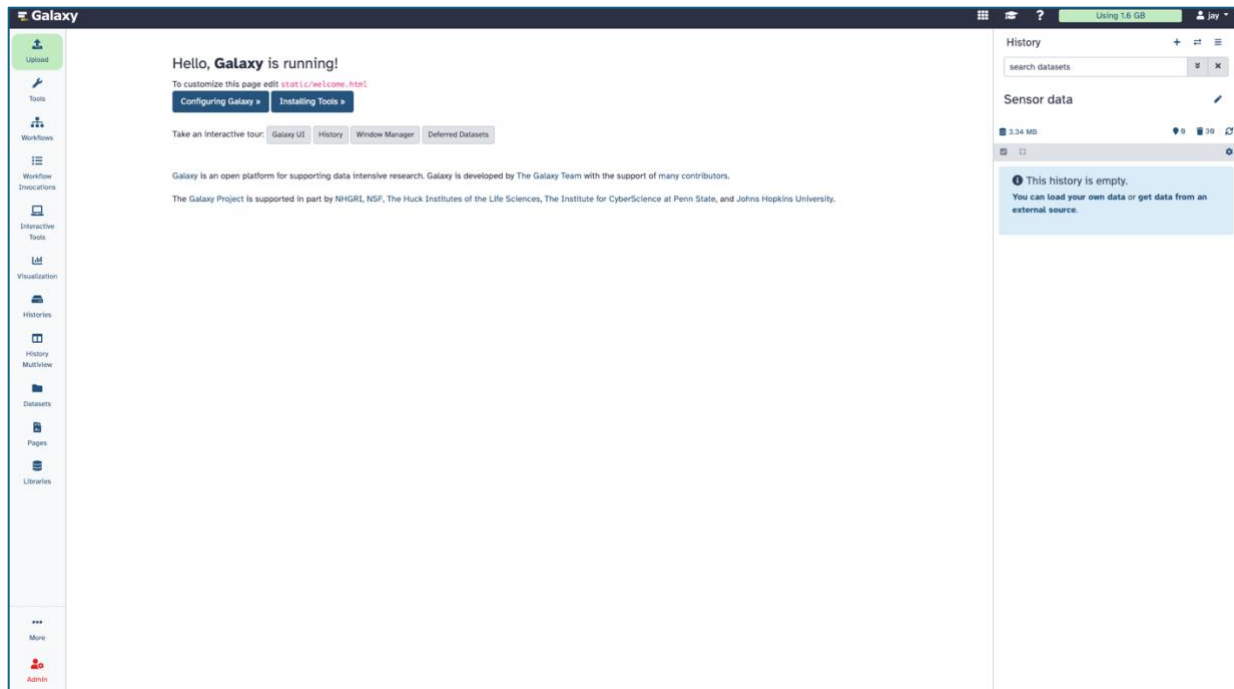
GAIA-C (Galaxy Air Investigation and Analysis for Citizens) - A scalable Galaxy workflow interface for air pollution research.

Tutorial to execute data analysis workflow

Select the top right “**Login or Register**” button and login to the default admin user account using default username “**admin@example.org**” and password “**password**”.

Step 1: Download the data

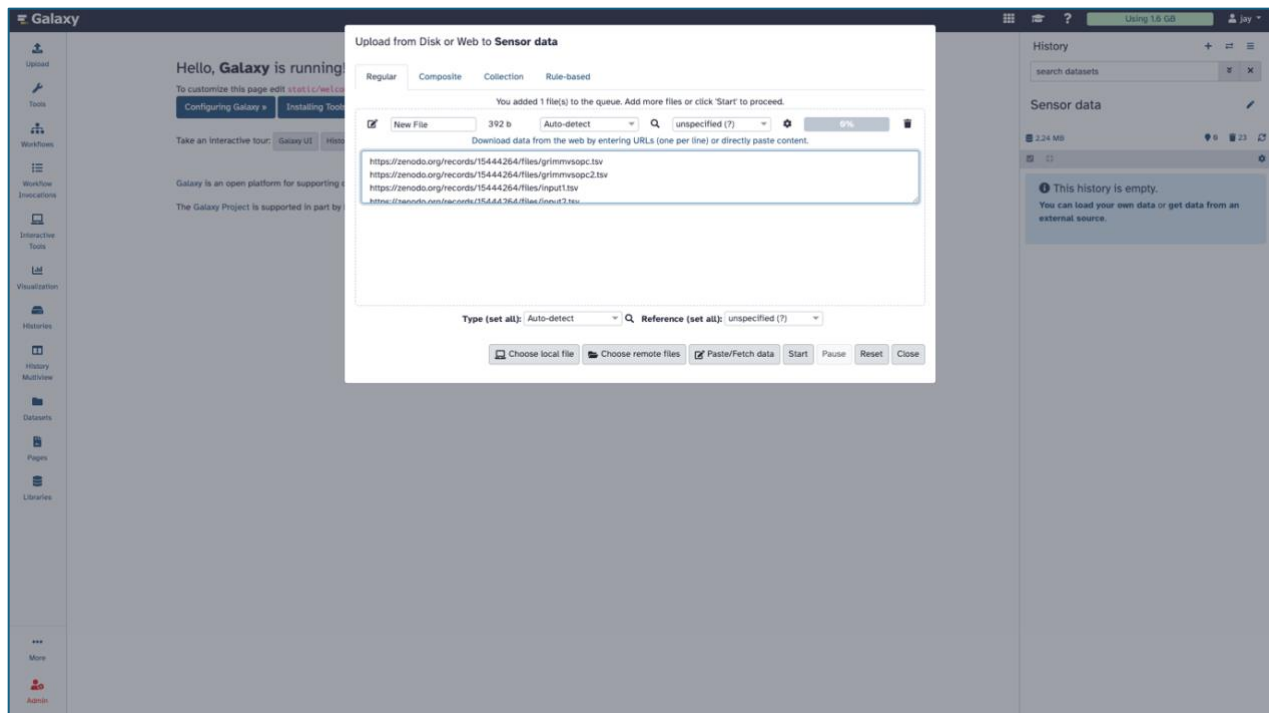
1.1 Select the **Upload** icon in the top-left corner.



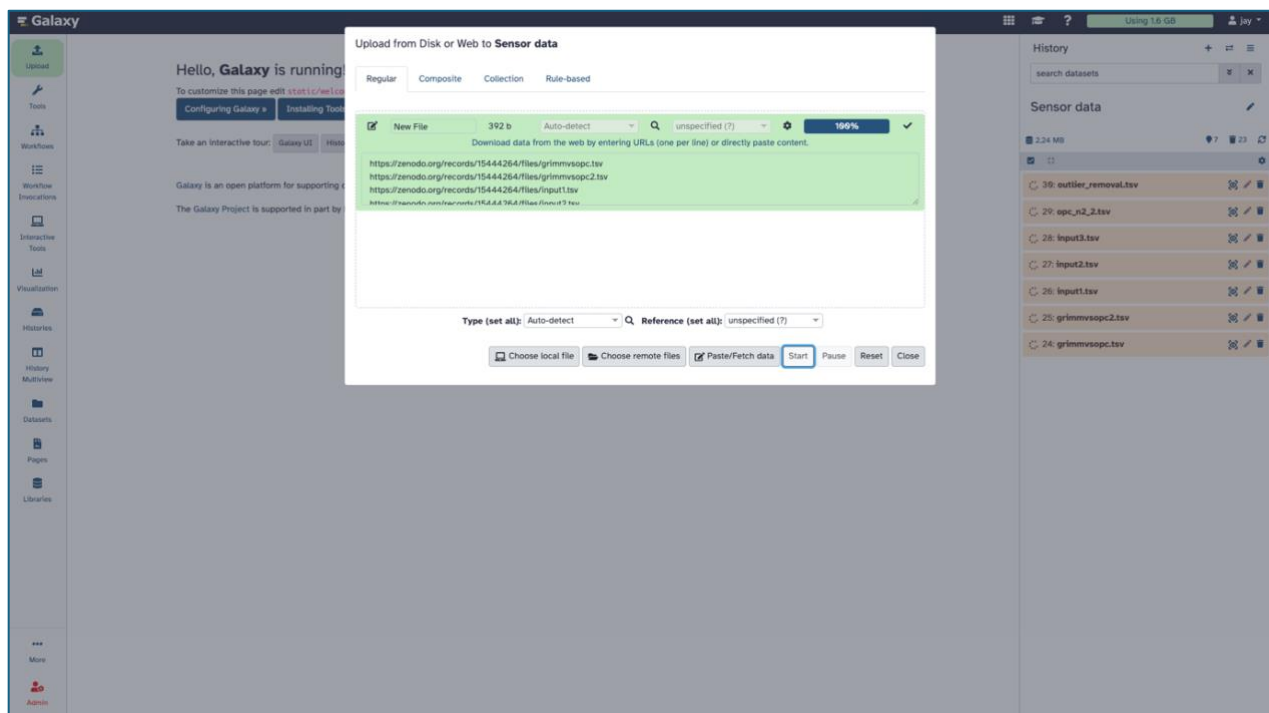
1.2 Copy and paste the following links into the Upload tool

<https://zenodo.org/records/15444264/files/grimmvsopc.tsv>
<https://zenodo.org/records/15444264/files/grimmvsopc2.tsv>
<https://zenodo.org/records/15444264/files/input1.tsv>
<https://zenodo.org/records/15444264/files/input2.tsv>
<https://zenodo.org/records/15444264/files/input3.tsv>
https://zenodo.org/records/15444264/files/opc_n2_2.tsv
https://zenodo.org/records/15444264/files/outlier_removal.tsv

Select “**Paste/Fetch data**” and copy paste all the link to the box and click “**Start**”

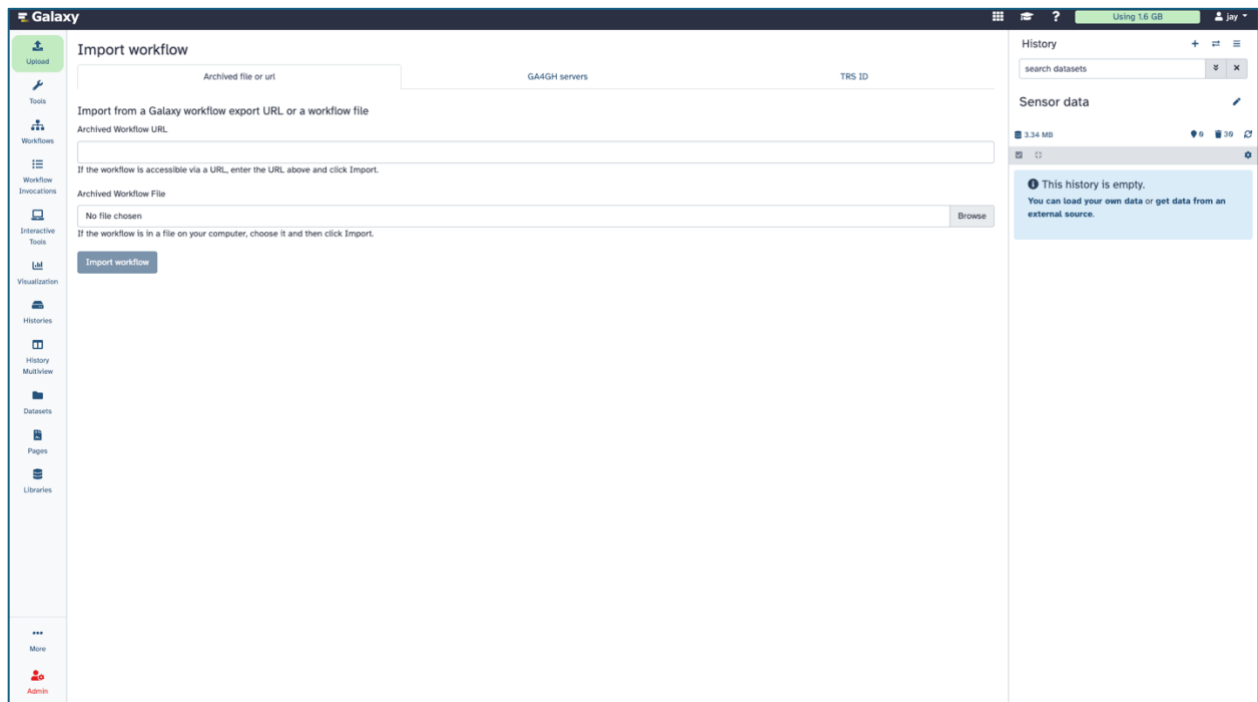


The data will be downloaded in the right-side **history** panel.

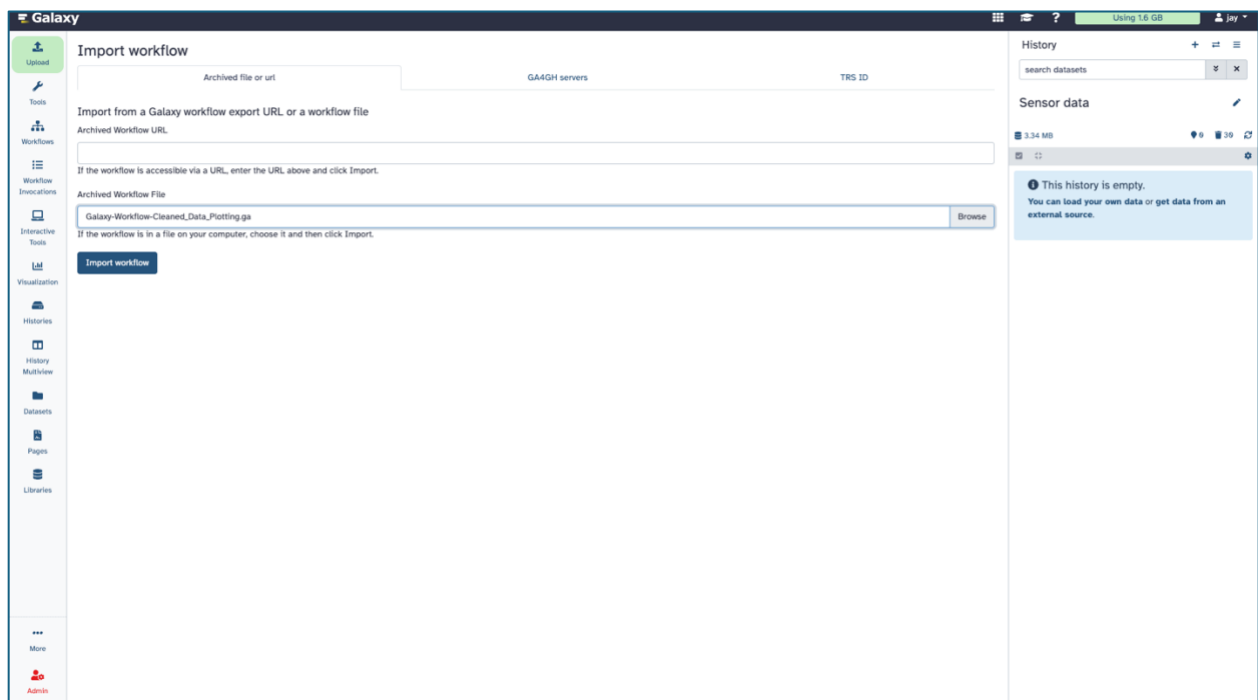


Step 2: Workflow execution

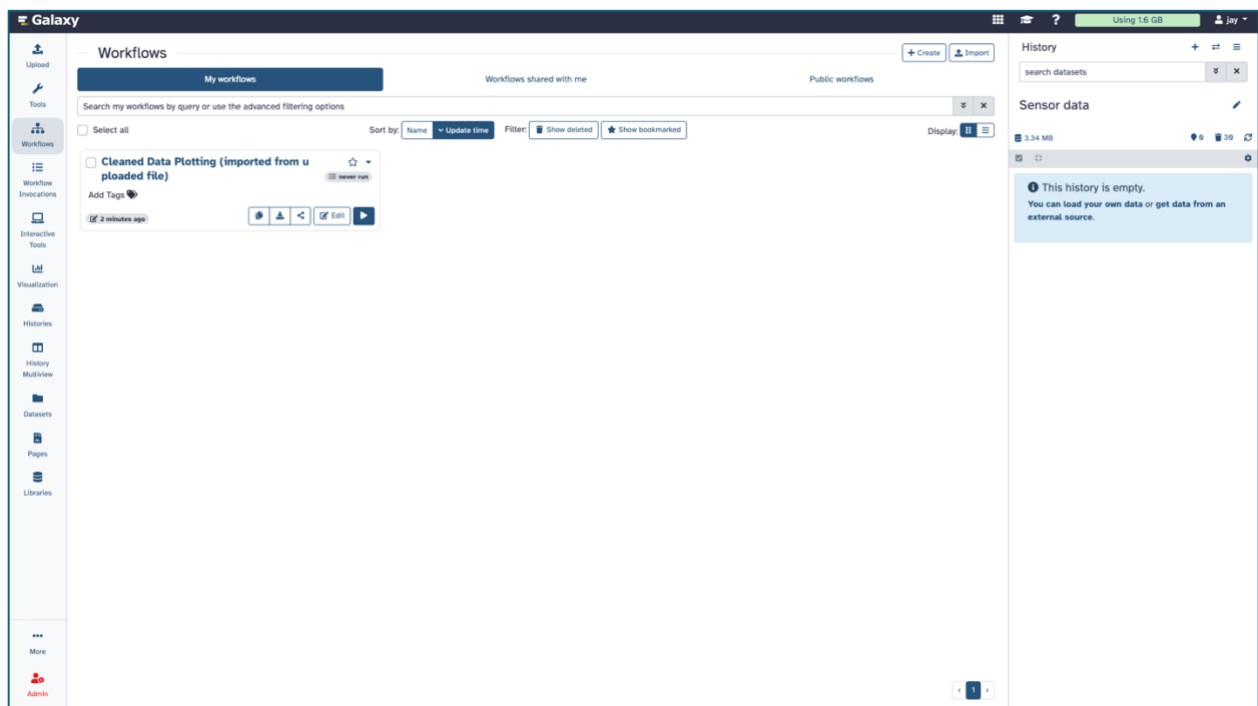
2.1 Select the **workflow** icon from the left-hand menu



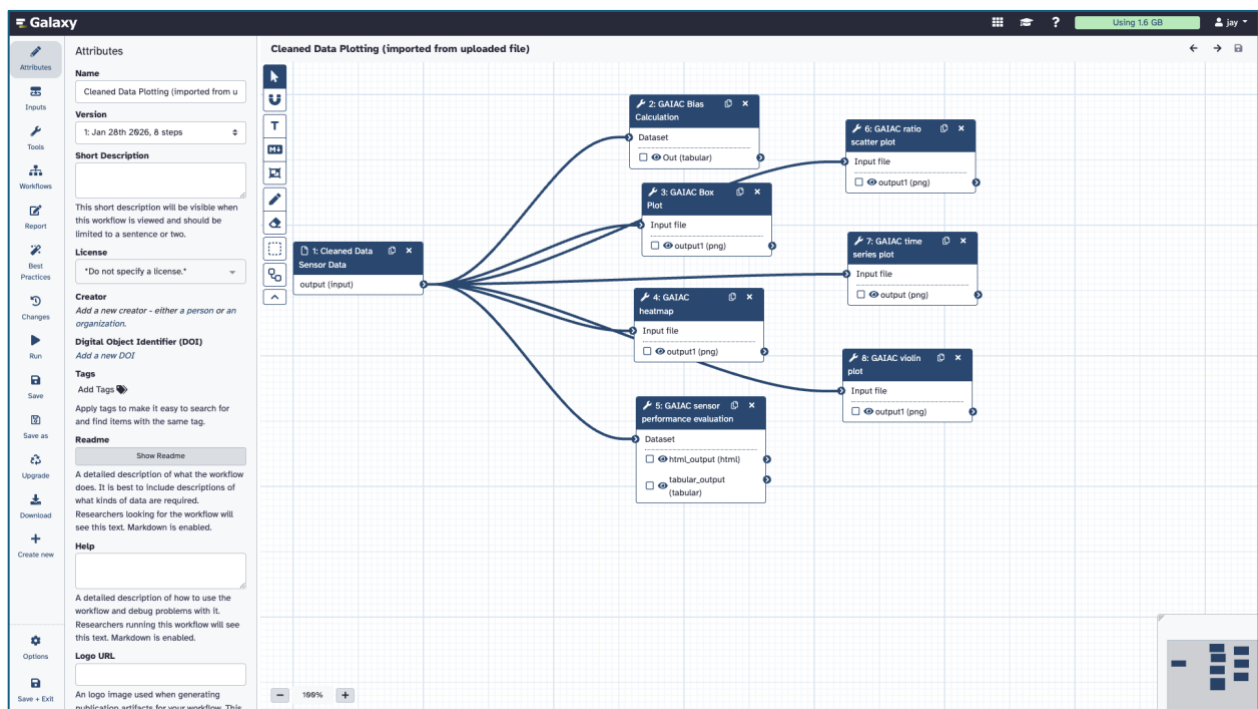
2.2 Browse for the workflow file (e.g., “Galaxy-Workflow-Cleaned_Data_Plotting.ga”), then click **Import workflow**.



2.3 From the list, for desired workflow, click on the **Edit** icon



2.4 The workflow editor allows you to edit the workflow.



2.5 Tool parameters can be configured from the right-side panel by selecting a tool from workflow editor. Once ready, click the **Run** button from the left-hand toolbar

The screenshot shows the Galaxy workflow editor interface. On the left, there's a sidebar with various tools and a 'Run' button. The main workspace displays a workflow titled 'Cleaned Data Plotting (imported from uploaded file)'. The workflow starts with a 'Cleaned Data Sensor Data' tool, which feeds into several other tools: '2: GAIAC Bias Calculation', '3: GAIAC Box Plot', '4: GAIAC heatmap', '5: GAIAC sensor performance evaluation', '6: GAIAC ratio scatter plot', '7: GAIAC time series plot', and '8: GAIAC violin plot'. The right-hand panel shows the parameters for the selected tool, '6: GAIAC ratio scatter plot'. The parameters include: Input file (Data input 'sensor' (tabular)), Plot title (optional), Scatter plot, Figure Height (optional, 3), Figure Width (optional, 5), Label for y axis (optional), Label for x axis (optional), and Variable selection for X axis (optional, Select single column).

2.6 Select the input data, then click **Run workflow**.

The screenshot shows the Galaxy interface with a workflow titled 'Cleaned Data Plotting (imported from uploaded file) (Version: 1)'. The workflow is listed in the 'History' panel on the right, showing steps 31 through 37. The 'Cleaned Data Sensor Data' tool is highlighted in green. The 'Run workflow' button is visible in the top right corner of the workflow editor.

2.7 This will execute the job, and the result will be available in the History pane

The screenshot displays the Galaxy web interface for a workflow titled "Invoked Workflow: Cleaned Data Plotting (Imported from uploaded file) (Version: 1)". The workflow is shown in the central pane, starting with "1: Cleaned Data Sensor Data" and branching into several steps: "2: grimmvsopc2.tsv", "3: GAIAC Bias Calculation", "4: GAIAC Box Plot", "5: GAIAC heatmap", "6: GAIAC ratio scatter plot", "7: GAIAC time series plot", and "8: GAIAC violin plot". The right pane shows the "History" section, which lists the results of the workflow steps, including "15: GAIAC violin plot on dataset 2 (png)", "14: GAIAC time series plot on dataset 2 (png)", "13: GAIAC ratio scatter plot on dataset 2 (png)", "12: GAIAC sensor performance evaluation on dataset 2 (tabular)", "11: GAIAC sensor performance evaluation on dataset 2 (html)", and "10: GAIAC heatmap on dataset 2 (png)".
