Panorama Public: A public repository for Skyline documents

Vagisha Sharma¹, Josh Eckels², Birgit Schilling³, Jacob D. Jaffe⁴, Michael J. MacCoss¹, Brendan MacLean¹
University of Washington, Seattle, WA¹; LabKey Software, San Diego, CA²; Buck Institute for Research on Aging, Novato, CA³; The Broad Institute, Cambridge, MA⁴

Overview
PanoramaWeb is an open-source repository software project for targeted proteomics data processed with Skyline that has been adopted by a number of laboratories and organizations. PanoramaWeb (https://panoramaweb.org), the Panorama server hosted at the University of Washington, has become a popular choice with laboratories lacking the resources to set up their own Panorama servers. Users can request free projects on PanoramaWeb where they can manage data access permissions. To fulfill journal submission requirements, researchers have used their own projects on PanoramaWeb to provide public access to data. We present a new mechanism that allows users to publish their data to a public repository on PanoramaWeb that provides a new central resource to the community for published data processed with Skyline.

Introduction
Usage of PanoramaWeb has grown since it became available in January 2013. As of May 2015, the server hosts projects for over 100 different laboratories.

Methods
PanoramaWeb has become a popular choice with researchers for hosting Skyline documents associated with publications. However, these documents remain part of user projects on PanoramaWeb where the user can make changes, including removing the supplementary data entirely. When data contained in a user project is submitted to Panorama Public a snapshot of the data is created, to which the submitting authors have read-only access. Panorama Public provides a permanent location for supplementary data to reference in publications, in its original form as it was intended for publication. Access to data in the repository is managed as required. If requested, data can be private with access only to authors and reviewers during the manuscript review process. Data is made publicly accessible upon publication.

Results
Publishing to Panorama Public

STEP 1 Upload documents to PanoramaWeb: Skyline documents associated with a manuscript are uploaded to a researcher’s project on PanoramaWeb.

STEP 2 Annotate a folder for publication: Folders containing data intended for publication to Panorama Public must be annotated with a description of the experiment. This includes information such as an abstract, experiment and sample descriptions, organism, MS instrument used etc. The example shown above is from a published dataset available on Panorama Public at https://panoramaweb.org/labkey/optic_study9.url

STEP 3 Submit the annotated folder for publication: Clicking on the “Publish” button in the experiment description brings up a form that lets users generate a permanent link to the data and submit the data for publication to Panorama Public. The permanent link can be included in manuscripts and given to journal editors during the manuscript review process.

Data on Panorama Public

Folder in researcher’s project on PanoramaWeb after copy

Folder on Panorama Public after copy

Conclusions
Panorama Public provides a new community resource for published data processed with Skyline. Data is made available in its original form as it was intended for publication. PanoramaWeb users may also submit data to Panorama Public during manuscript review process and request private access for reviewers until publication. A tutorial describing the process of publishing to Panorama Public is available at: https://panoramaweb.org/labkey/tutorial_panorama_public.url

Future work: Fulfill the requirements for participating in the ProteomeXchange consortium as a data resource.

References

Funding: R01 GM103551 (PI: MacCoss) and U54 HG008997 (NIH: L1P)

https://panoramaweb.org/