Agilent Seahorse Multifile Data Analysis

User Guide

Agilent XF Seahorse Analytics

## Overview

Data analysis and result reporting can be easily performed using Agilent XF Seahorse Analytics, a web-based software platform with dedicated assay companion views.

Seahorse Analytics is a web-based software application allows you to analyze Seahorse result data from your Agilent Seahorse Analyzer from computer connected to the internet.

To register or log in to your Seahorse Analytics account, visit: **https://seahorseanalytics.agilent.com**.
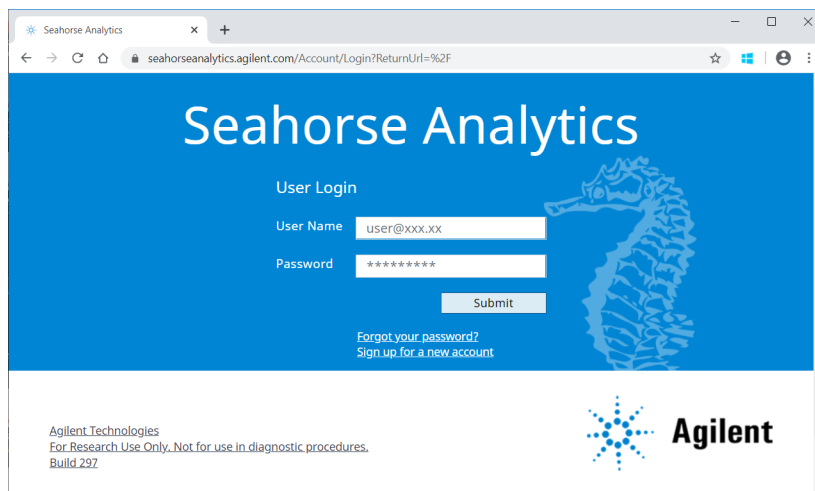
Once you have uploaded assay files to your account, you can begin to create and use the relevant assay widgets in Seahorse Analytics. For additional information about using Seahorse Analytics, visit the **Agilent Cell Analysis Learning Center** website.

Multi File Analysis

Multi file analysis allows you to combine assay files for all types of Seahorse XF assays and analyze them together. Assay files are combined and organized by the use of **Projects**. Projects are comprised of sets of experimental data assay files and custom widgets.

There are three primary workflows for multifile analysis:

- Side by side comparison among data files.
- Combine files into single graph using **Group Collections** in **compare** mode from multiple data files.
- Combine files into single graph using **Group Collections** in **combine** mode to get averaged measurements from multiple data files.

Assay files contain custom widgets created from the experimental data. You can see this in **Quick View** when adding widgets.

Custom analysis views

Project views

Add custom analysis views to your project. A project view is comprised of an arrangement of widgets. Select a project view from the project **Views** menu and use the actions toolbar to add and arrange widgets.

Create a group collection

Add or generate a group collection from the **Collections** menu of your project. Group collections are comprised of Replicate groups performed on independent plates.
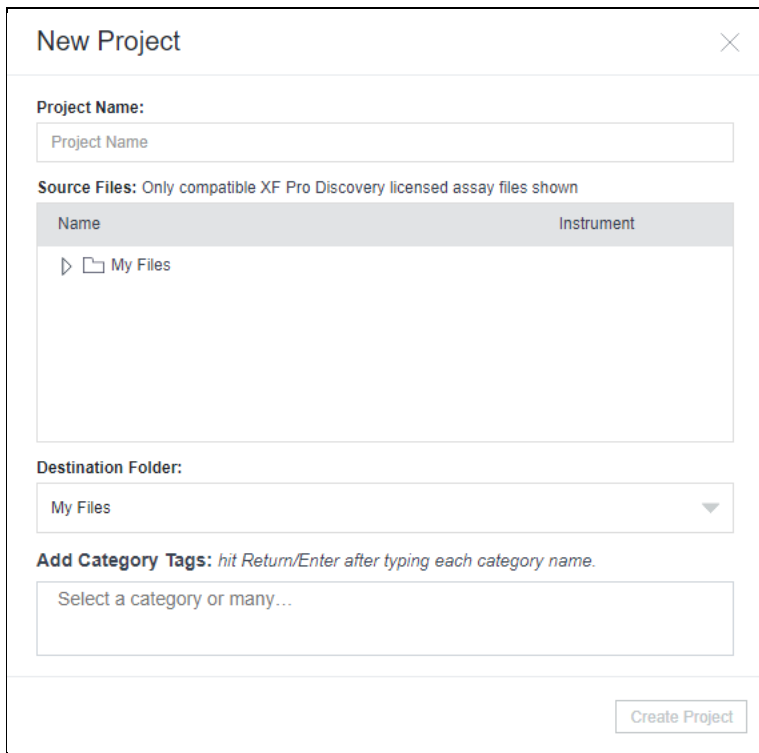
Create collection widgets

Collection widgets are comprised of **Group Collections** or **Compound Collections**. Collection widgets allow comparison or combination views of experimental data from independent experiment plates.

Create a new project

Multifile analysis is performed using multiple assay files contained in a project.

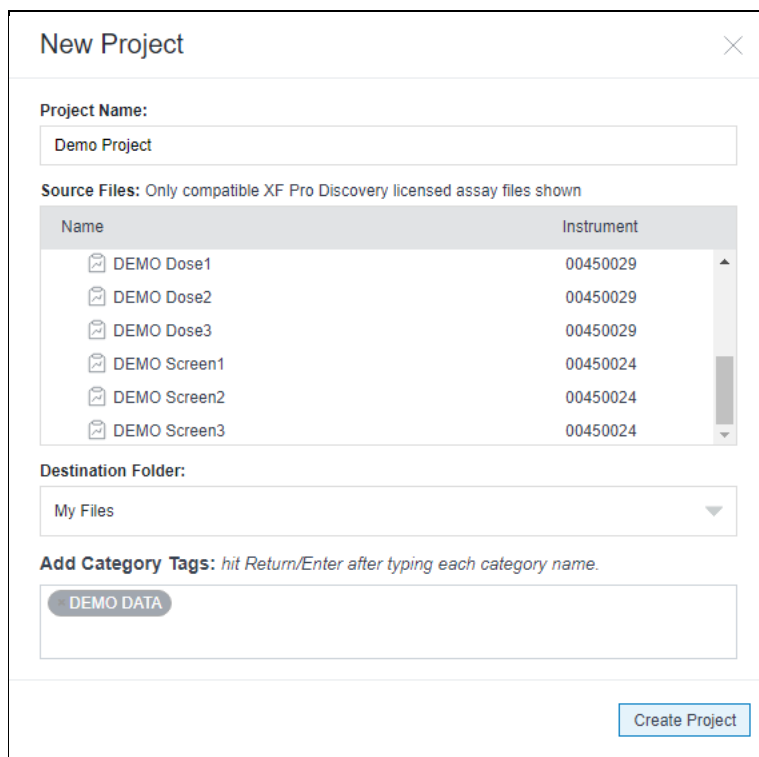**1** From the **Files** tab, click **New Project**

2 Enter a name for the project.

3 Select data files to include in the project.

NOTE

Only compatible XF Pro Discovery licensed assay files are shown in the available files.

4 Add category name(s), if desired.
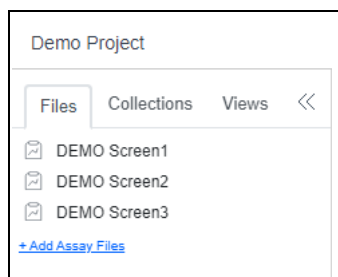
5 Click **Create project**.

Add assay files to an existing project

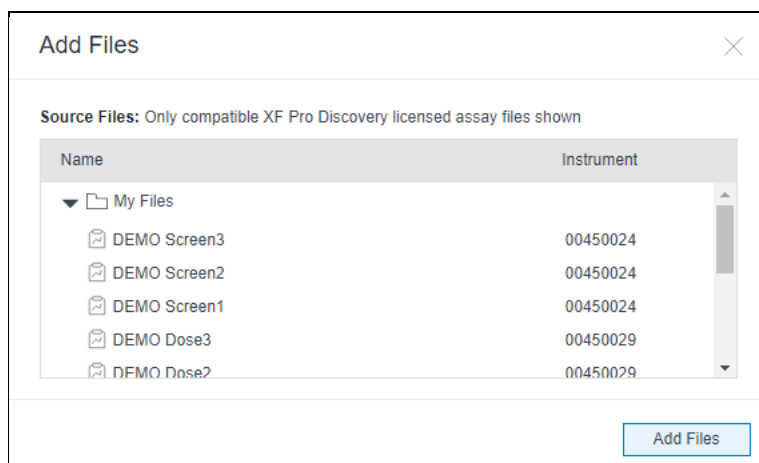**1** From the **Files** tab of the Project, select **+Add Assay Files.**
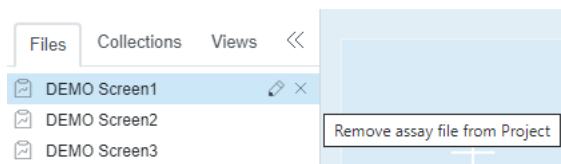

2 Select files to add to the project.

3 Click **Add Files**.

Added files will be available in the project when creating widgets.

Remove assay files from a project

To remove an assay file from an existing project, from the **Files** tab of the project, hover over the assay name and click the **x**.
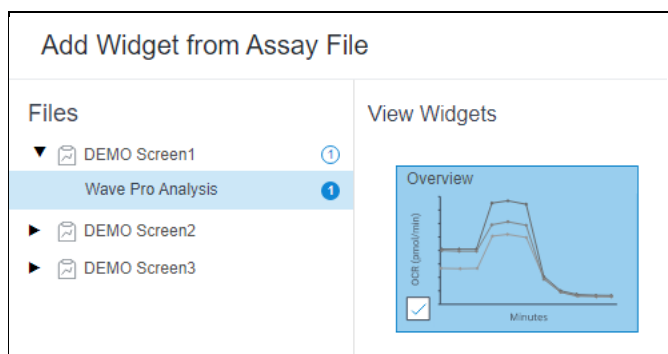

Add Widgets

Add custom widgets created from the assay data to use in your multifile data analysis.

1 From the actions toolbar of the project screen, select **Add Widget** .
Alternatively, click **Add Widget** region in the project layout.
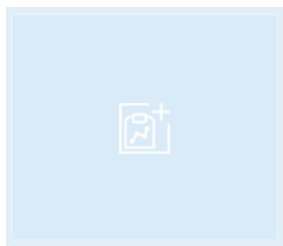
2 Browse assay files and click to select widgets to add.

3 Click **Add Selected** to complete the selection process and return to the project layout.

NOTE | **Only widgets associated with your assay previously defined in the assay file's Quick View are available for selection**

The selected widgets are added to the layout. You can arrange the widgets in the layout by using the **Edit mode** of the layout view. Arrange widgets in your layout for side-by-side comparison of multiple analysis files.

Add collection widgets

Collection widgets are comprised of Group collections or Compound collections. To add a collection widget, you must first add or generate Group collections or Compound collections from your available project files. The added collections will be available for selection when adding and modifying collection widgets.

From the **Collections** tab of the project, add Group Collections and Compound Collections, as desired, from among the files present in your project.
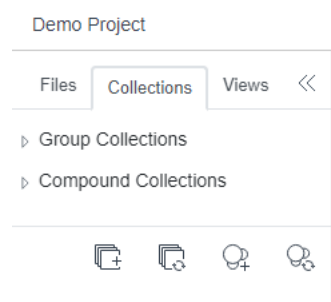
Add group collection

A group collection is a replicate group preformed on independent plates.

1   Click **Add Group Collection** 📑 .

2   Assay files previously added to the project are shown with their constituent compounds.

3   Select compounds from multiple assays and click **Add Collection** to add the group of compounds to the **Group Collections** list.
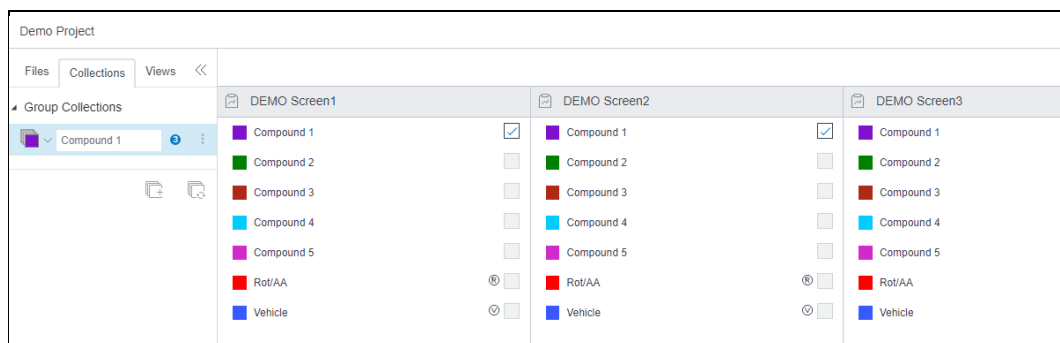
The group collection is generated and available for selection when adding or editing collection widgets.

Click **Generate Group Collection** 📑 to automatically add all compounds from the assays in your project to the **Group Collections** list.

Add compound collection

1   Click Add Compound Collection 👤 .

2   Select compounds from the eligible compounds in the project.

3   Click Add Collection. The compound collection is generated and available for selection when adding or editing collection widgets.

Click **Generate Compound Collection** 👥 to automatically add all compounds from the assays in your project to the **Compound Collections** list.
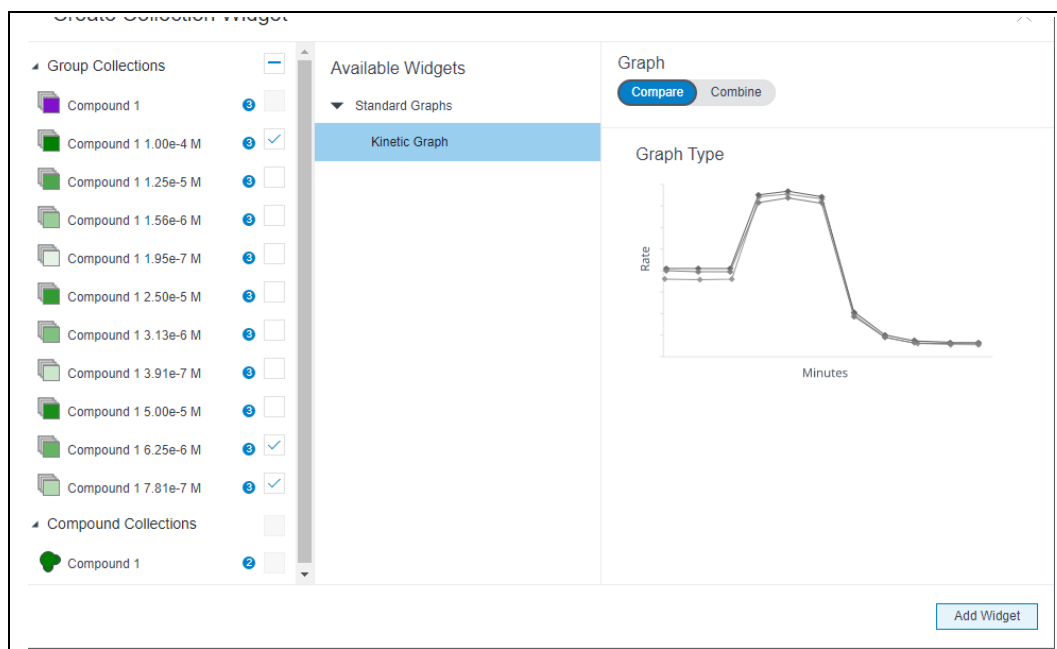
Add Collection Widgets

Add Collection Widgets created from the assay data to use in your multifile data analysis. Widgets contain data from multiple analysis files and can be configured to display data in comparison or combination views.

1   From the actions toolbar of the project screen, select **Add Collection Widget** . Alternatively, click the **Add Collection Widget** region in the project layout.
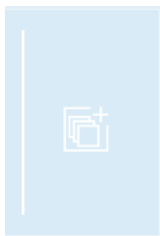
2   Select compounds from the available collections you previously added to the project. Available widgets of the selected compounds are listed in the **Available Widgets** list.
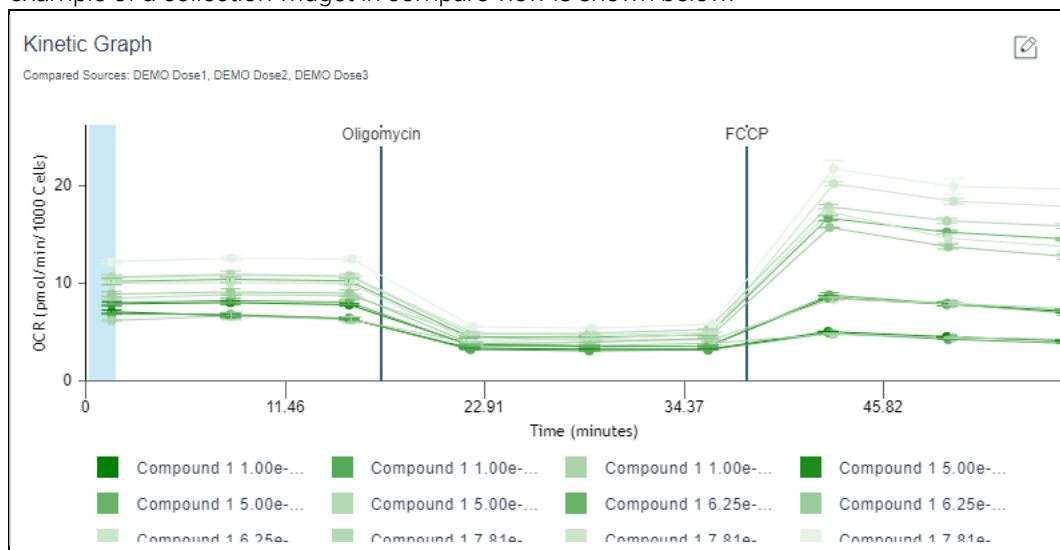

3   Select **Compare** or **Combine** to view the **Graph Type** you wish to use in your widget. A preview of the graph type is displayed.
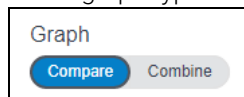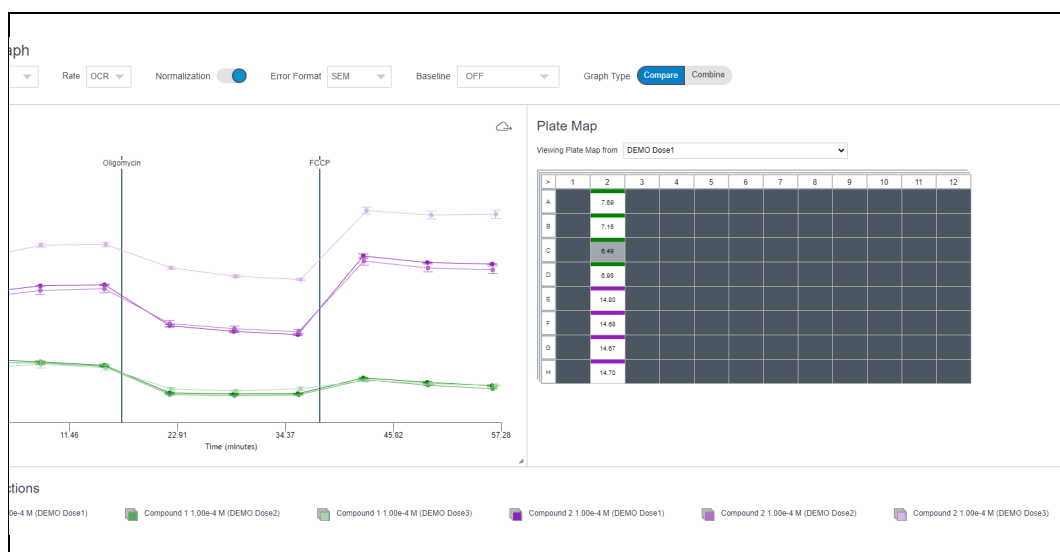
4 Click **Add Widget** to complete the selection process and return to the project layout. An example of a collection widget in compare view is shown below:

Edit Group Widgets

1 Select **Edit** [✎] at any time to edit a widget. The widget is displayed in **Edit** view.

2 Edit the parameters specific to the widget. Group widgets have the additional **Graph Type** selection available.

3 Select **Compare** to customize a graph that displays group compounds by individual compound on the same graph.
Select **Combine** to customize a graph that displays group collections as an average of all compounds in each compound group.

Add views

Each project is created with a default view. You can customize the layout of the default view, as well as add additional custom project views. Each separate view can contain any set of widgets best suited to your various analysis needs.

1 Select a view from the **Views** tab in your open project to view the layout.

2 Arrange and edit the widgets as desired.

3 Select **+ Add Blank View** to design a new custom view in your project.

4 Click the menu next to your new view and select **Rename View** if desired.

5 Add Widgets as desired.

Your custom views are automatically saved.

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