

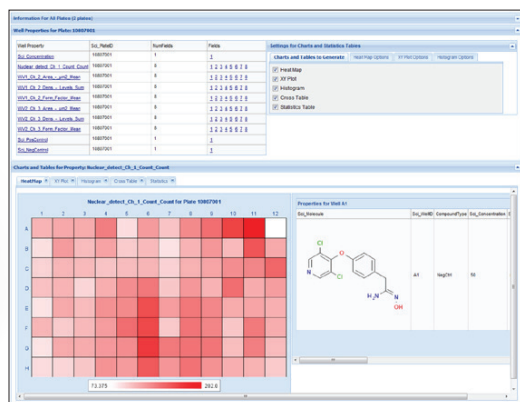
PLATE DATA ANALYTICS COMPONENT COLLECTION

The Plate Data Analytics Collection provides a data model for plate-based data within Pipeline Pilot Enterprise Server, and provides methods to read, write, report, visualize, manipulate and perform calculations on plate data. The collection allows each record on the data pipeline to carry an entire plate and its associated wells, as well as perform both plate and well level operations. Harnessing the power of the Pipeline Pilot graphical protocol building capabilities, complex data analysis procedures, such as analyzing the results of a screening experiment, can be easily constructed without the need to develop code. Coupled with the Integration Collection, this plate-based data can easily be inserted into or retrieved from a database.

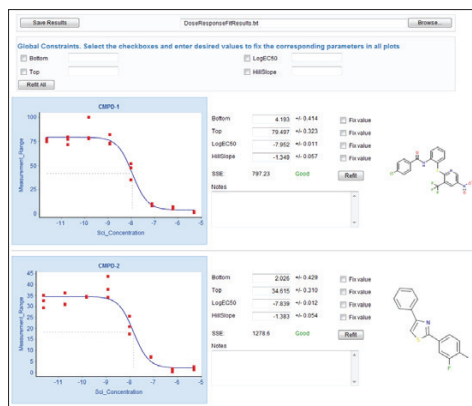
WITH THE PLATE DATA ANALYTICS COLLECTION YOU CAN:

- Define automated procedures to analyze the results of various types of screening experiments.
- Perform statistical calculations within or across plates, including normalizations and calculations of assay quality.
- Perform dose-response calculations using Pipeline Pilot, R-statistics, or GraphPad Prism™* methods.
- Visualize large collections of plates and interactively drill-down to plate and well level details.
- When coupled with the Integration Collection, insert or retrieve plate data from databases.

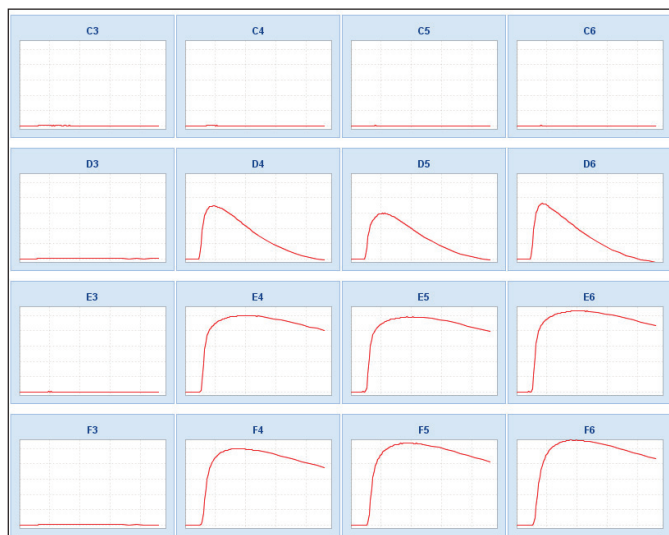
*GraphPad Prism is not included; this must be purchased separately.



Individual plates may be visualized in an individual plate view that allows all the properties of plates and wells to be viewed along with statistics



Multiple plates may be viewed as a grid of heat maps with drilldown capabilities



Multiple plates may be viewed as a grid of heat maps with drilldown capabilities

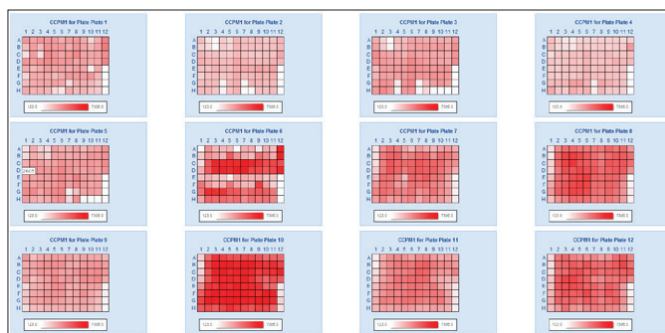
PLATE VIEWERS

A variety of static and interactive plate viewers are provided. Multiple plates may be viewed as a grid of heat maps with drill-down ability or one by one to enable quality control analysis to be performed across a series of assay plates from a particular experiment or run.

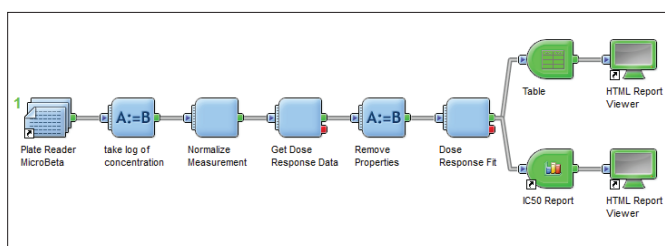
Individual plates may be visualized in an individual plate view that allows all the properties of plates and wells to be viewed along with statistics. An interactive IC50 plot viewer is provided to allow for visualization and manipulation of IC50 curves (e.g. knocking out points and recalculating). Visualizers can provide views into the contents of wells, whether they are numeric, textual, images or molecules. All viewers are constructed using the Reporting Collection and so can be modified and customized as desired.

PLATE MANIPULATORS

These components provide a variety of methods to easily modify plate data. These include the ability to split large plates into smaller plates, to combine small plates into larger formats and to merge plates together. Wells may be tagged as controls, as empty or with other user defined attributes. Custom expressions such as calculations may be applied to all wells within a plate.



Multiple plates may be viewed as a grid of heat maps with drilldown capabilities



Protocol to read microbeta plates, normalize, calculate and display IC50 curves along with summary information

PLATE MATH AND STATISTICS

Components are available to calculate dose-response curves using algorithms from Pipeline Pilot, from the R-statistics package and from GraphPad Prism. The Normalize Measurement component provides a variety of common methods to normalize response properties within or across plates. Plate and Well Statistics components provide a variety of common statistical calculations across wells or across multiple values with a well. A Z-Factors component provides a variety of common methods to calculate assay quality metrics.

To learn more about Pipeline Pilot, go to accelrys.com/pipeline-pilot