

Genedata Screener® Assay Analyzer

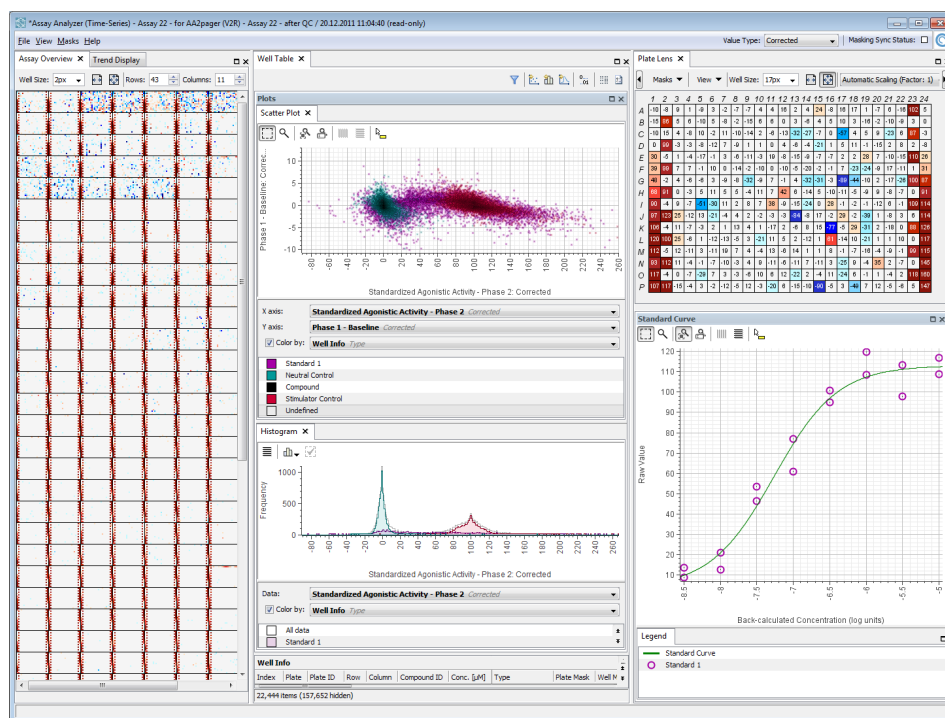
Analysis of All Plate-Based Experiments

With a unique combination of efficient workflow support and full interactivity, Assay Analyzer imports, normalizes and further processes data sets of all sizes – from a single plate to millions of compounds – in seconds.

Assay Analyzer – The Work Horse

Assay Analyzer imports and automatically processes data from all screening instruments. It handles standard High-Throughput Screening (HTS) assays as easily as classic Elisa experiments with calibration curves or screens with multiple read-outs. Advanced algorithms correct process-induced artifacts and automatically mask faulty measurements. You can review results and interactively refine processing instructions while maintaining an overview of the entire campaign. With Assay Analyzer, you can focus on the results and associated quality of your screening experiments.

- ▶ All Plate Formats
- ▶ Interactive Analysis
- ▶ Automation
- ▶ Statistics
- ▶ Trend Analyses
- ▶ Quality Metrics
- ▶ Diagnostic Displays
- ▶ Easy Customization



Complete Screening Campaign Management

(FIG. 1) Systematic processing and interactive overviews support in-depth analysis of thousands of plates.

Manage Entire Screening Campaigns

A flexible data capture infrastructure feeds data into a standardized data processing and quality assurance workflow, from which sessions and results are written to a central database. Assay Analyzer automatically:

- ▶ Imports data from plate-based screening experiments with up to millions of compounds
- ▶ Calculates derived results (e.g. for ratiometric assays)
- ▶ Normalizes well results based on well groups or plates

Data Quality Control and Assessment

Assay Analyzer combines automated quality control procedures with interactive review and tagging options to ensure high quality and result comparability. With Assay Analyzer you can easily:

- ▶ Review screening relevant statistics (i.e. Z, S/B, hit rate) and monitor trends on groups of plates, or for all plates
- ▶ Correct process artifacts across multiple plates with the proprietary pattern correction algorithm
- ▶ Perform replicate statistics
- ▶ Document your findings in annotations and reports

Fully interactive assay statistics, trend analyses, quality metrics, and diagnostic displays provide in-depth assessment of data quality and results for entire assays.

Hit List Generation and Result Reporting

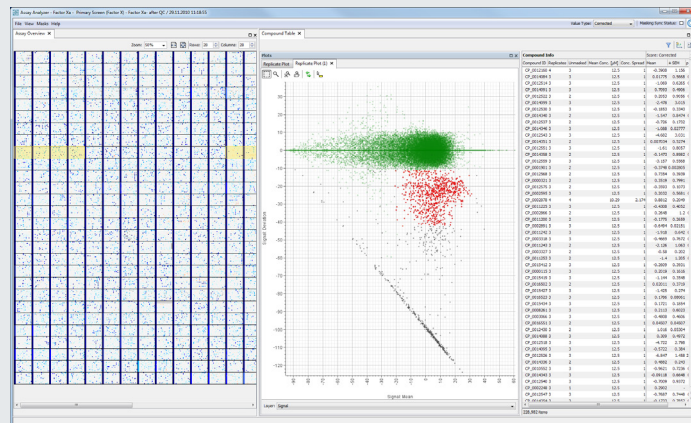
Generation of per-compound or per-gene results follows strict and transparent processing rules. Dynamic filtering allows interactive hit list generation. Assay Analyzer also features full audit trails as well as on-the-fly report generation during analysis sessions.

APIs and Extensions

Genedata Screener's APIs enable set-up of:

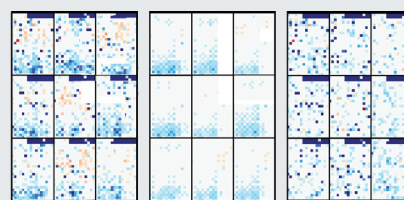
- ▶ Tailored parsers for data import
- ▶ Custom methods for feature calculation, normalization and replicate analysis
- ▶ Customer-specific integration with up- and down-stream systems and processes

In combination with the High Content, Time-Series or Cell Population Extension, Genedata Screener Assay Analyzer blends its efficient workflow support for analysis of screening data with optimal support for advanced screening technologies.



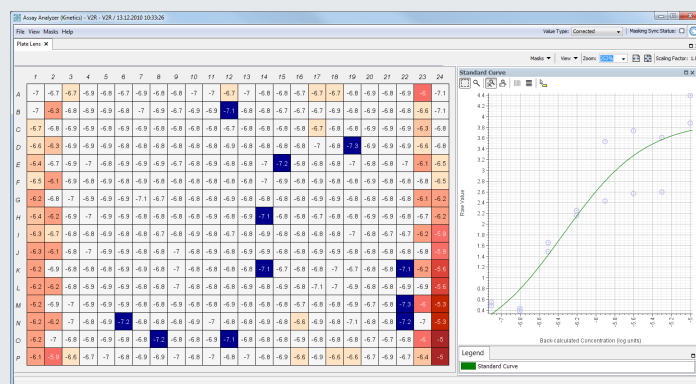
Interactive Quality Control

(FIG. 2) Interactive replicate analysis exposes result quality.



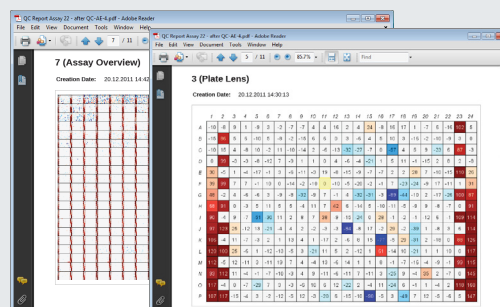
Pattern Detection and Correction

(FIG. 3) Automatic pattern detection and correction increases data quality and reproducibility.



Standard Curves

(FIG. 4) Fully automated normalization by standard curves accelerates sophisticated assay formats.



Reporting

(FIG. 5) PDF reports fully document analysis workflow, observations and results.



Genedata Screener® is part of the Genedata portfolio of advanced software solutions that serve the evolving needs of drug discovery, industrial biotechnology, and other life sciences.

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