



Science For A Better Life

Analysis of High Throughput FDSS Kinetic Data

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FDSS use in HTS

HTS:

- >10 000 to >100 000 tests/day
- single compound, single concentration, single measurement
- compound collections > 1 million
- millions of data points to analyse, using specialized software

FDSS in HTS:

- screening of fast responses, e.g. ion channels
- kinetic resolution: >100 measurements/well
→ >100 fold more data



The software dilemma

FDSS software is typical instrumentation software:

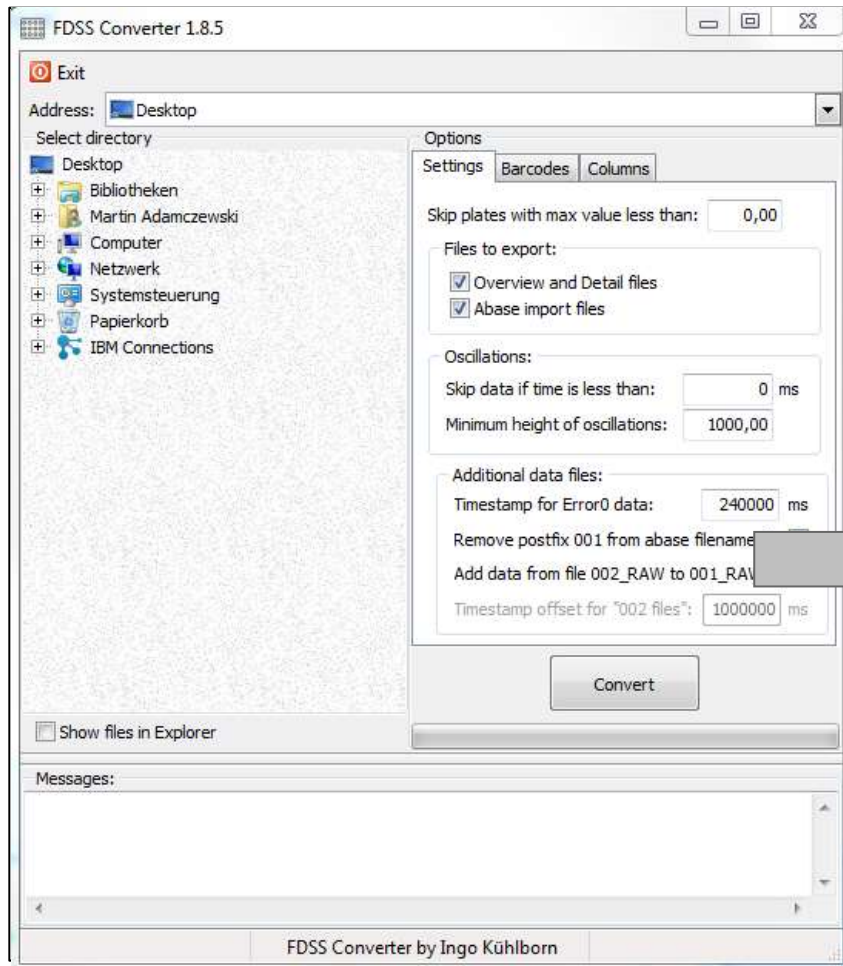
- file-based
- nice visualization
- many features
- but limited to one plate at a time
- and sloooooow

Where HTS needs collide with FDSS software:

- Can anyone inspect >10 000 curves/day?
- Do we take single time point of kinetic curve – waste 99% of measurements?

→ **Need for a more flexible tool!**

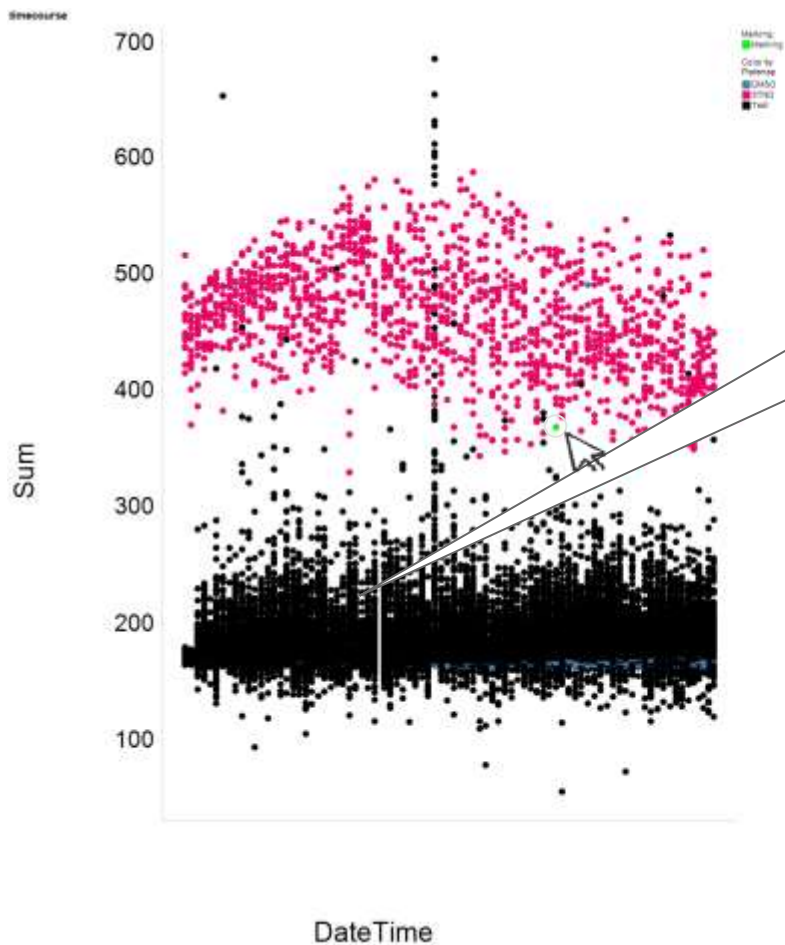
The software solution



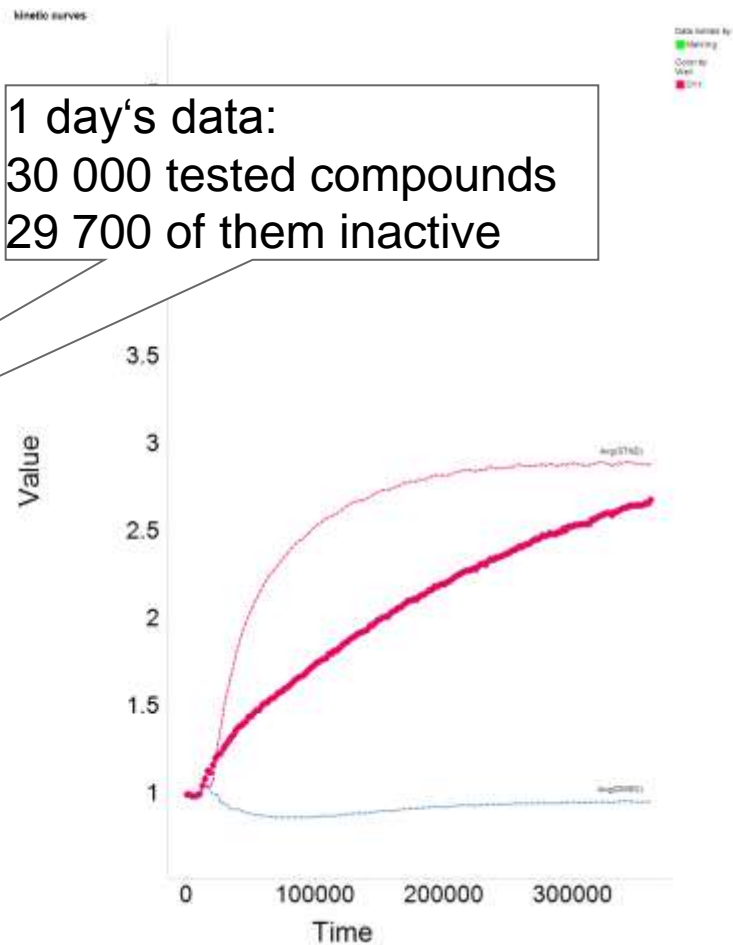
Visualization Component

- TIBCO Spotfire, commercially available (or any other similar visualization application)
- visualizations to link aggregated and detailed results

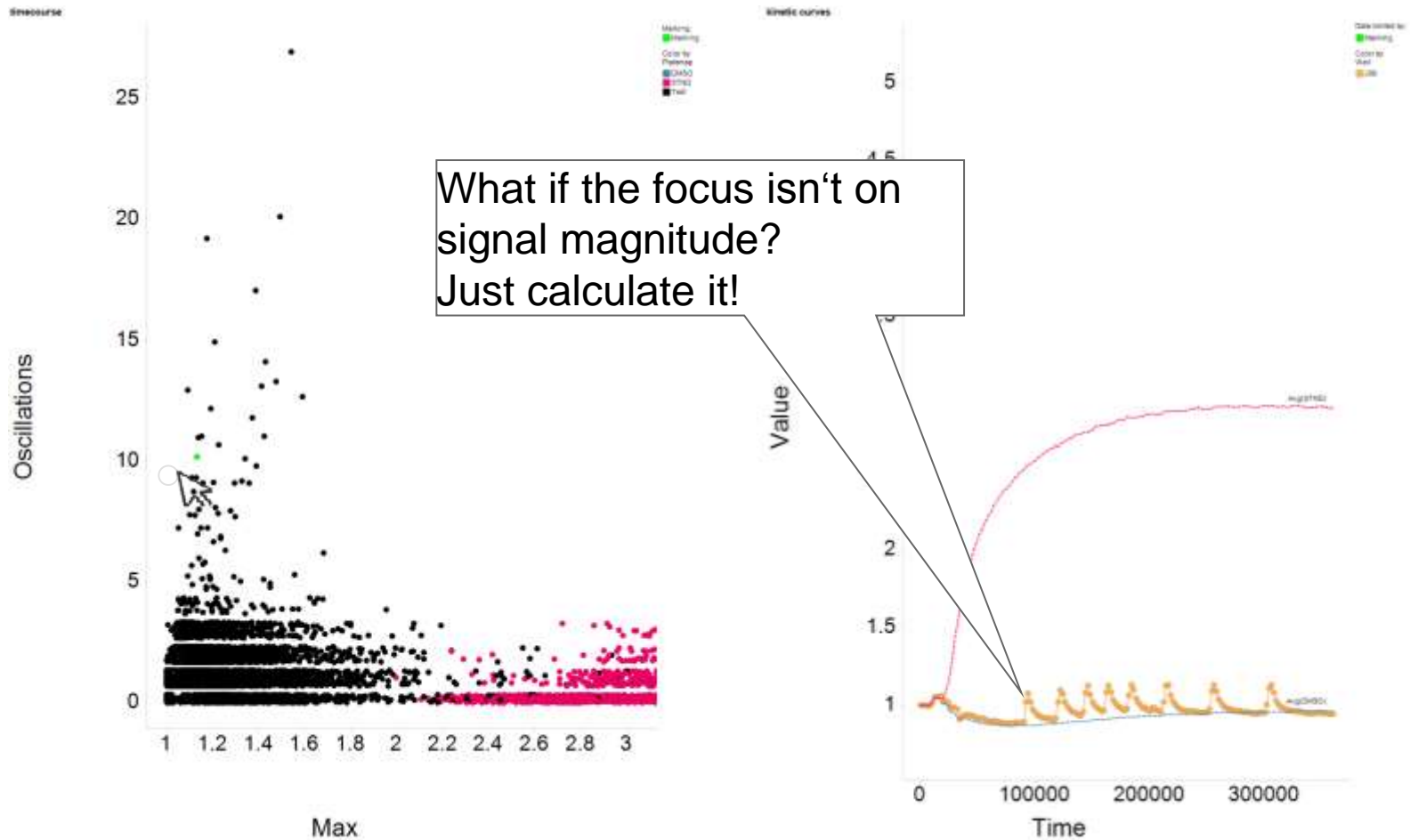
Demo



1 day's data:
30 000 tested compounds
29 700 of them inactive



Demo continued





Summary

A simple solution to the software dilemma:

- a visualization package already employed in HTS
- a computation tool

- focuses on interesting results against a background of many uninteresting results
- identifies features otherwise only found through visual inspection



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Thank you!