Interactive Visualizations for Aslib.net

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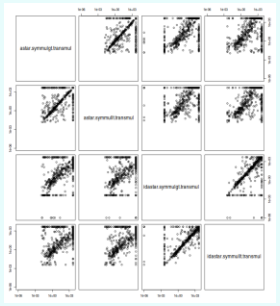
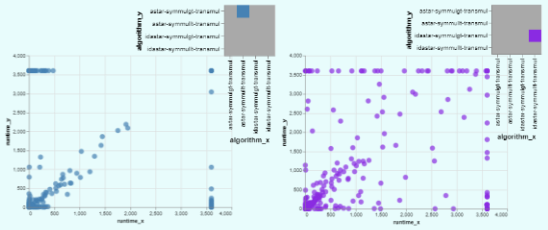
Compare Algorithms



The previous graphics showed a plot for every possible combination. The CPMP_2015 chart to the left is just one example.

Instead, the interactive version allows the user to dynamically assign an algorithm to each axis.



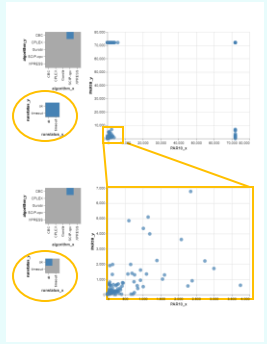
Why you care

ASlib.net features data sets from 27 scenarios. Its previous graphs were static and nonspecific. The new, interactive graphs let users choose what data they want to see, and how.

Now users can:

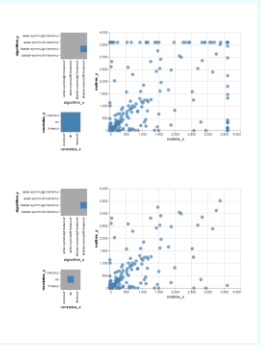
- Compare algorithms (test portfolio compatibility)
- View tooltips (get info on specific points)
- Filter failed runs (see trends more clearly)
- Zoom and pan (see detail in dense clusters)

Filter Data

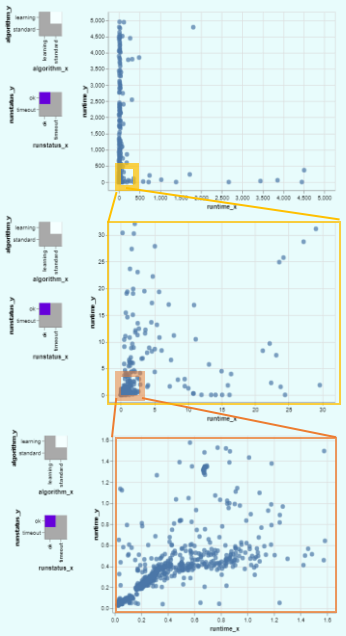


Users can select only the runstatus they wish to see, improving automatic scaling.

This also cleans up the image, making it easier to see trends.



Zoom and Pan



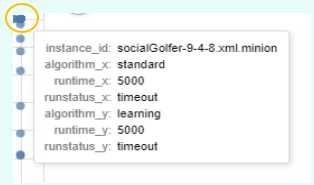
The ability to pan and zoom now provides greater insight into densely-clustered points.

For example, in the CSP_2010 scenario, the "standard" model appears to dominate the "learning" model, except in a few cases.

However, on zooming in, it becomes clear that the "learning" model performs as well or better on short runs.

View Tooltips

What are those outliers?



Hovering the mouse over any point shows additional information.

Future Work

- Add log transforms
- Scale comparisons to largest data sets
- Improve filter UX (selector color, initially includes only one selection)
- Add more graph types
- Improve code reusability
- Improve comparison readability (add 1:1 line)