



Modular Approach

Enabling Interactive Shiny Apps for Data
Visualization within Clinical Development

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The technology behind it





WHY? - Motivation

From:

Static Data Review
Focus: **Tables**

2.3.2 Clinical laboratory evaluation

2.3.2.1 LABPCS - Possibly clinically significant abnormalities

Parameter Treatment	N	Number analysed ¹	Low		High		
			N	%	N	%	
Lab parameter 1							
Treat 1	xxx	xxx	xxx	xx.x	xxx	xx.x	
<Treat k>	xxx	xxx	xxx	xx.x	xxx	xx.x	
<Lab parameter n>							
Treat 1	xxx	xxx	xxx	xx.x	xxx	xx.x	
<Treat k>	xxx	xxx	xxx	xx.x	xxx	xx.x	

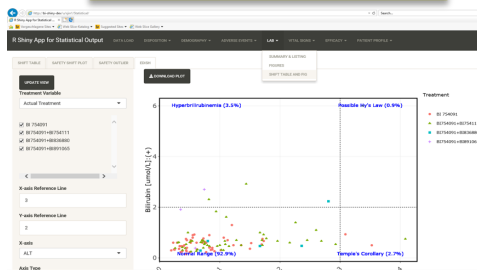
¹ Subjects with no possibly clinically significant abnormality at baseline. Empty columns or lines indicate that there are no corresponding rules defined. Subjects may be counted twice per parameter and treatment when testing low and high.

- PDF/PPT-based review
- Non-linked outputs
- Specific data snapshots required

- » Existing gap for **interactive, real-time data visualization** to support
 - trial oversight & decision making
 - statistical novelties

To:

Interactive data review
Focus: **Graphics**



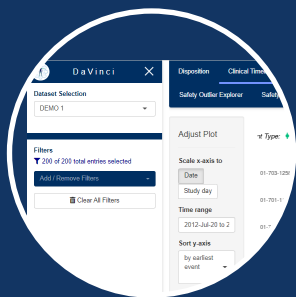
- Web-based
- Linked outputs
- Real-time and interactive
- » **Effective & focused** trial oversight
 - Review, incl. deep-dive option
 - Align & share insights during meetings
- » **Faster clinical insights generation and more agile decision making**

And beyond...

Storytelling with data

- » **Unleash the power of data through visualization:**
Consider new ways of reviewing and presenting data
- » Use advanced graphics to support implementation of new statistical methods
- » Guide your team through the data

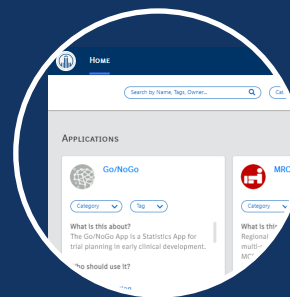
Our solution



Modular
Approach



Hosting
Platform



App
Warehouse



Modular Approach

- Provides base functionalities (*e.g. bookmarking*) and a common look-and-feel
- Modules are functional building blocks composable into customized Apps
- Apps are built according to **trial** and **project-specific** needs
- Flexibility to adept to different data structures



Hosting Platform

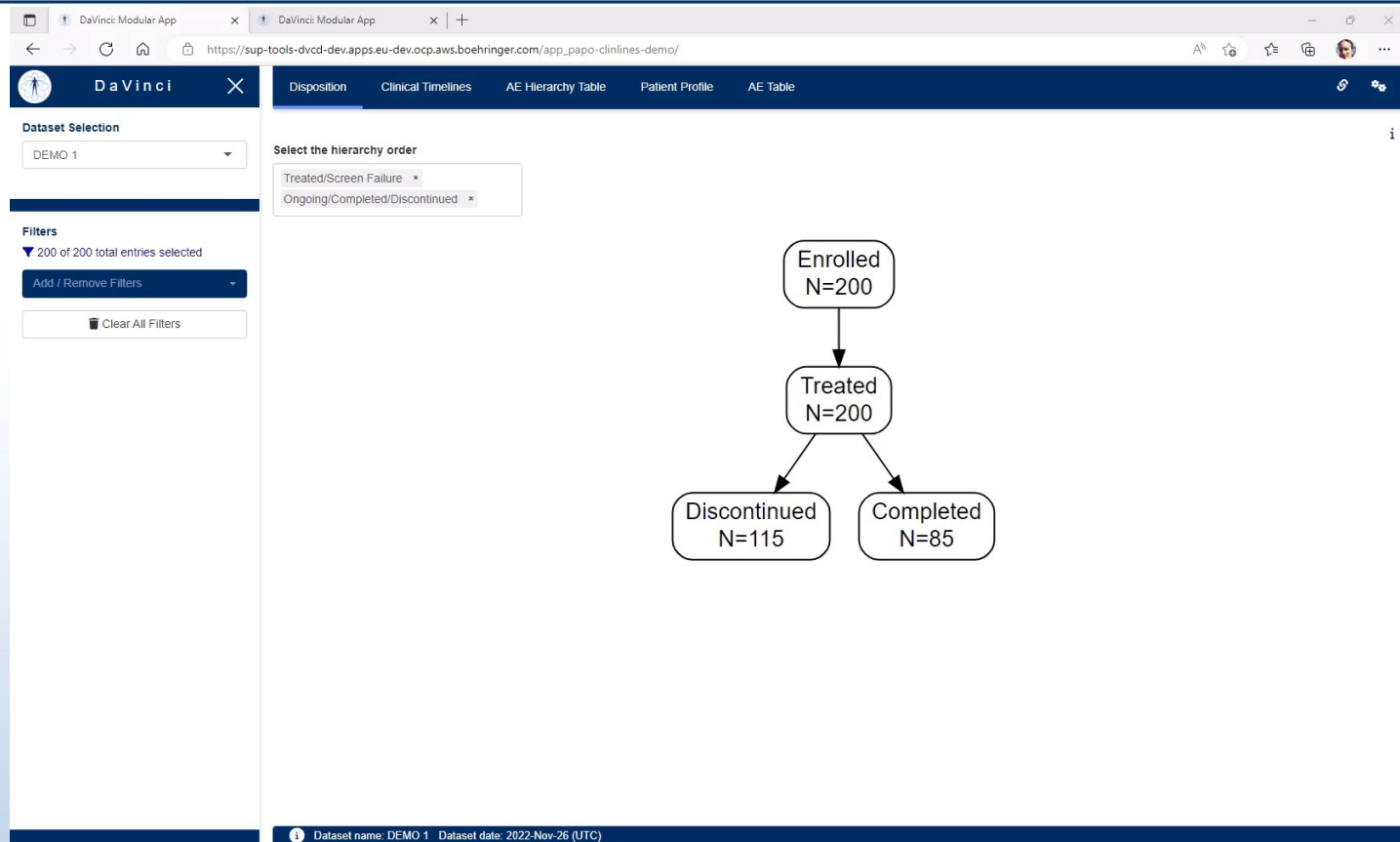
- Easily create, integrate and deploy Apps onto a validated platform
- User Account Management by App
- CI/CD pipelines
 - Automated testing
 - Pull requests

App Creation with the Modular Approach



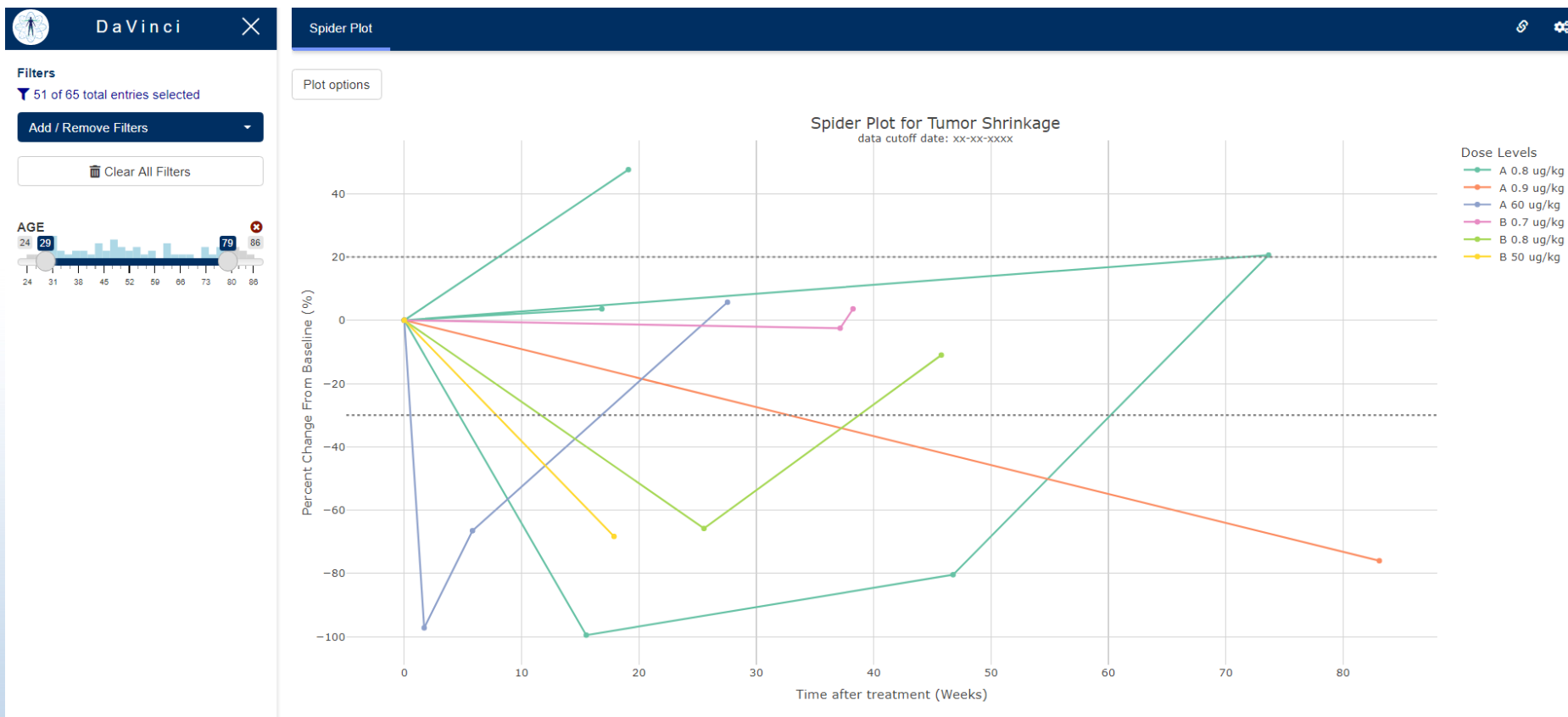
- **Mock Demo**
 - Demo Apps
 - App Creation Walkthrough
- **Module Gallery** (more modules)

Demo Apps



Sneak peek behind the scenes

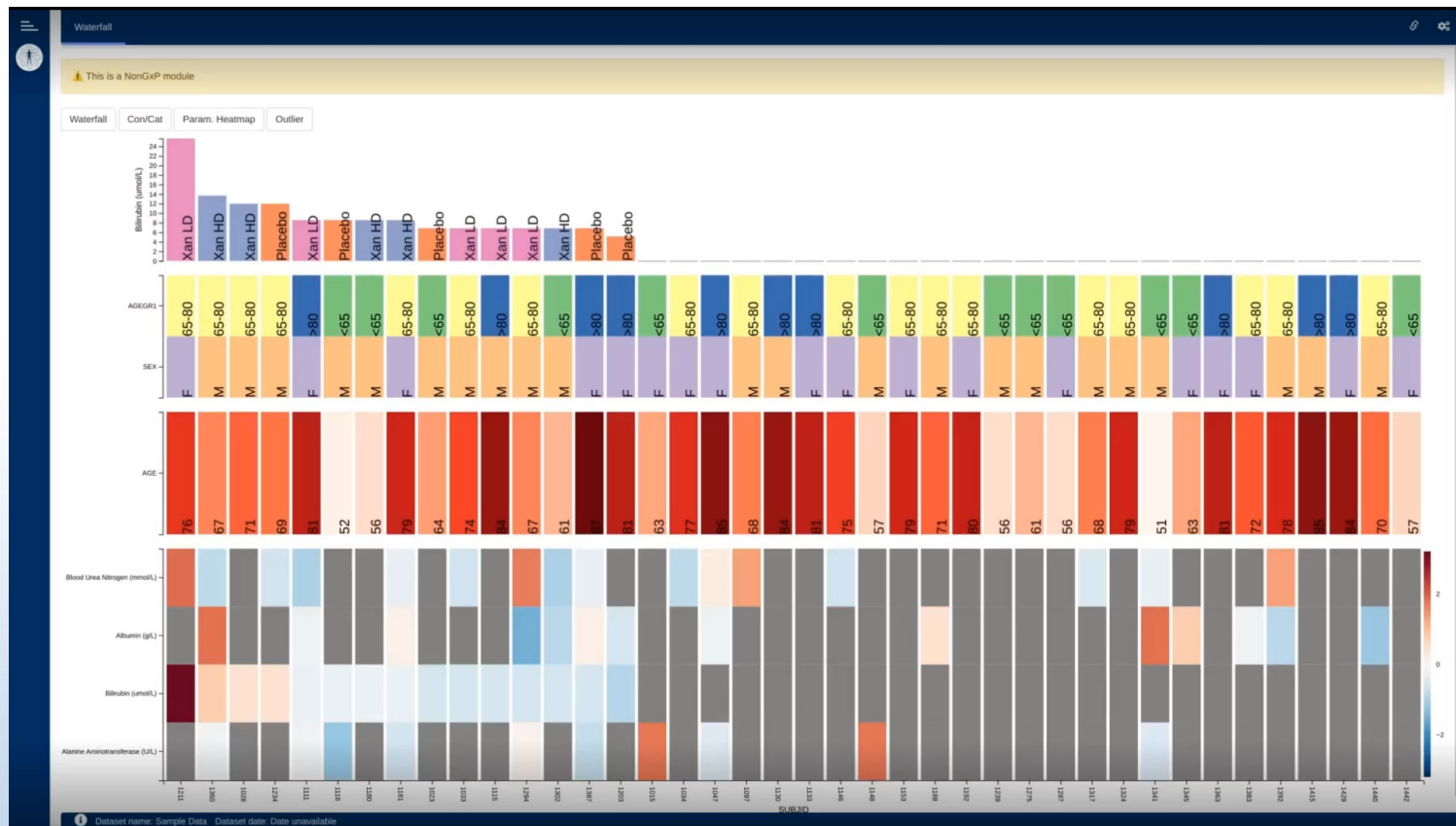
Module gallery: Spider Plot



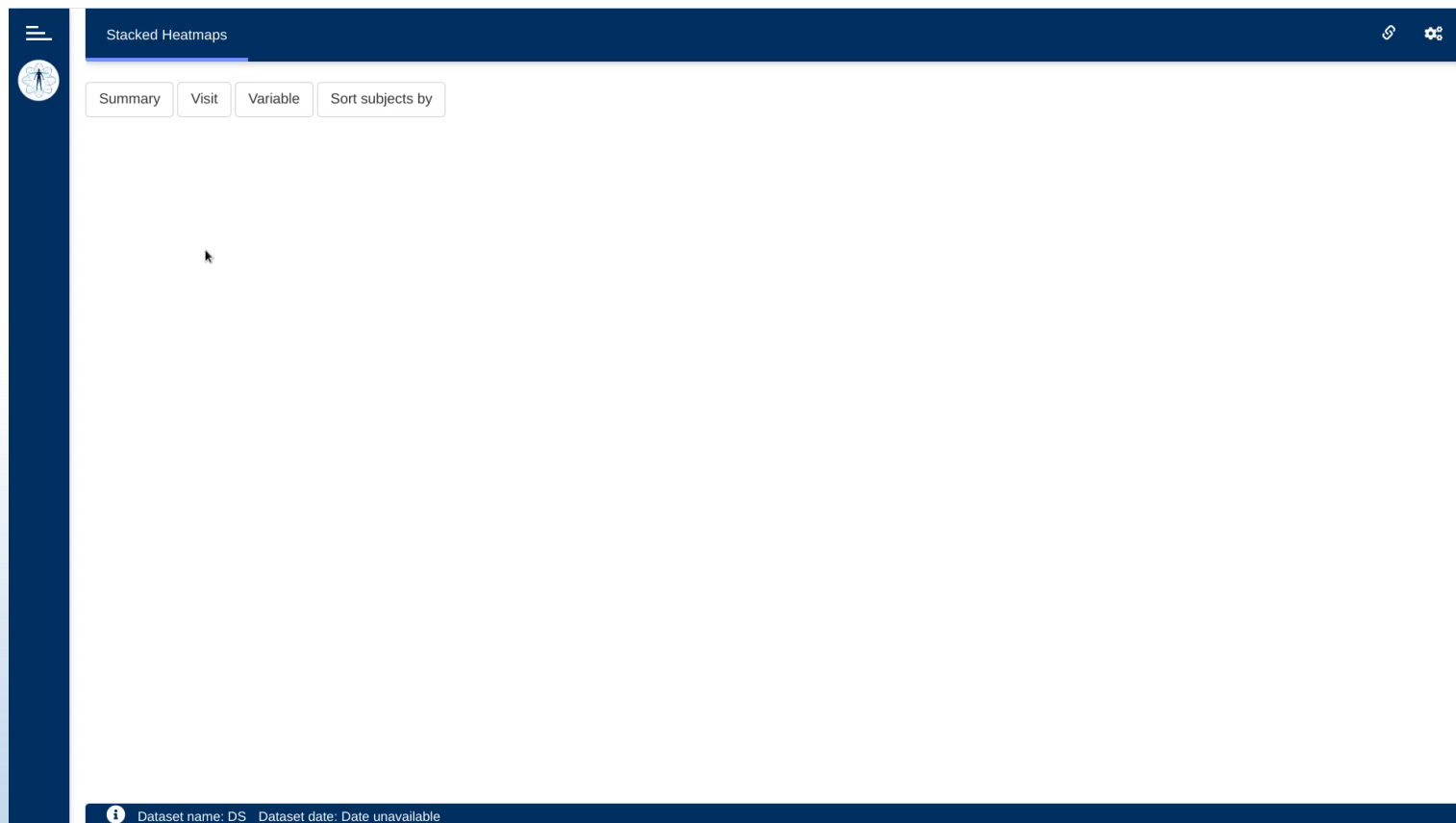
Module gallery: Swimmer Plot



Module gallery: Heatmap & Waterfall



Module gallery: Stacked heatmap



Module gallery: ROC

The screenshot displays the 'Da Vinci' application window with the 'ROC' module selected. The interface is divided into a left sidebar and a main content area. The sidebar contains a 'Filters' section indicating '100 of 100 total entries selected', with buttons for 'Add / Remove Filters' and 'Clear All Filters'. The main content area features a top navigation bar with 'ROC', 'Histogram', 'Density', and 'Metrics' tabs. Below this, there are instructions: '(Predictor) Select a parameter' and '(Response) Select a parameter'. The bottom status bar shows 'Dataset name: Sample Data' and 'Dataset date: Date unavailable'.

Thank you

for your attention !