SD MAY 25-43
GRID AI: BUILDING A USER-FRIENDLY GRID VISUALIZATION AND WEB-INTERACTIVE INTERFACES FOR THE GRIDAI ELECTRIC POWER GRID MANAGEMENT SOFTWARE

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Weekly Summary

Over the past two weeks, we focused on refining the UI for the dashboard and widget components. Key improvements included switching to a new library for widget movement, enhancing the widget editor to better resemble a code editor, and redesigning the subscription page on the market dashboard. We also began integrating support for widgets to process live time-series data. In parallel, we continued expanding functionality and documentation for the SVG Diagram action item.

Past week accomplishments

- **Jesus Soto:** During these past weeks, I completed significant enhancements to the visual interface and user experience elements of the widget editor page. Similarly, with the help of one of the advisors, I have learned how live data is available in the backend server side and have begun with the integration implementation to use that data in our project.

- **Rangsimun Bargmann:** I successfully implemented the widget icon preview when adding widgets to resemble the ThingsBoard dashboard. Now, generic icons are displayed when users go to add a new widget such as Bar Charts, Line Charts and Gauges. Additionally, I changed libraries for handling customization of widgets on a dashboard. Now, widgets can be moved freely on the canvas and can be resized in a more user friendly manner.

- **Skyler Kutsch**: Met with Evan on the 491 team to discuss the overview of the SLD component. I started comprehensive documentation for the code with pictures and details for each feature. I have been working on finalizing icon options this week. The icon options feature has a component to display and edit icons, icons included in the backend, and example graphs to show each icon. I will use the new icon access to experiment with logic for displaying busbars.

- **Franck Ndoutoume**: Throughout the past weeks I was able to Modernize the Code Editor's user interface.
- **Hang Kim Thang**: Implemented the Timeline component and tried to set up a meeting with 491 team to have discussion about the project.
- **Justin Soberano**: Redesigned the subscription page that allows edit/view access. And allows for subscribing to multiple stakeholders for the dashboard.

Individual contributions

NAME	Individual Contributions *(Quick list of contributions. This should be short.)*	Hours this week	HOURS cumulative
Jesus S.	Significant UI/UX enhancements to the widget editor and live data integration to GridAI.	10	55
Rangsimun B.	Improved the "Add Widget" drawer to show icons and improved the customization of widgets on a dashboard to more resemble ThingsBoard.	10	55
Skyler K.	Began written doc, met with Evan, finalizing icon options, and planning for busbars.	12	40
Franck N.	Implemented consistent light/dark theme switching across all editor tabs using a unified isDarkMode state	10	54
Hang Kim T.	Implemented Timeline component and ready to have everything for the next meeting.	10	34
Justin S.	Made a new subscription page that is now updated and can allow for multiple stakeholders to be subscribed to.	10	52

- o **Plans for the upcoming week**
  - **Jesus Soto:** Finish the integration of live and historical data and use them to be correctly represented in our widgets.
  - **Rangsimun Bargmann:** Add functionality to the widgets in the dashboard such as pop-up modals when the mouse is hovered over the widget to allow for easy editing.
  - **Skyler Kutsch**: Catch up the doc that describes the features and where in the code they are, finalize icon options, implement busbar logic.
  - **Franck Ndoutoume**: Debug and fix any synchronization or rendering errors across editor tabs.
  - **Hang Kim Thang**: I planned to work more and try to implement better than previous weeks.
  - **Justin Soberano**: Use new backend endpoints for the bid stuff so we dont use any CRUD operations in the front end.

Summary of weekly advisor meeting

For the next meeting, each team member will continue improving and testing their assigned action items. This includes finalizing the integration of live time-series data into widgets, further refining the dashboard's functionality and appearance to align more closely with ThingsBoard, and completing the documentation for the SVG Diagram tool. Additionally, we will begin transitioning all frontend CRUD operations to the backend to improve scalability, maintainability, and security.