



NPS: Next Generation Planning and Scheduling

A work in progress 2019-2020

Out with the old...in with the new!

AVPS vs NPS

AVPS – Airline Vision Planning and Scheduling – is one of Sabre's oldest legacy applications. It provides a massive amount of data for planners and schedulers to shift through in order to make the most informed and profitable decisions for any one flight.

As the following screens demonstrate, the legacy app was very outdated and unnecessarily complicated. Icon toolbars were out of control. Form elements were randomly placed and informally grouped. There was plenty of unused space on the screens and data in tables was crunched together. We were tasked with modernizing the app in look and feel but also there was a need to rethink the workflows to be more efficient in serving the need of our user.

Once funding was secured for this project we called the new initiative for a revised AVPS – NPS. Next Generation Planning and Scheduling.



Profit Manager

Profit Manager evaluates the network profitability of a given schedule to perform strategic, long-range planning.

[READ MORE](#)



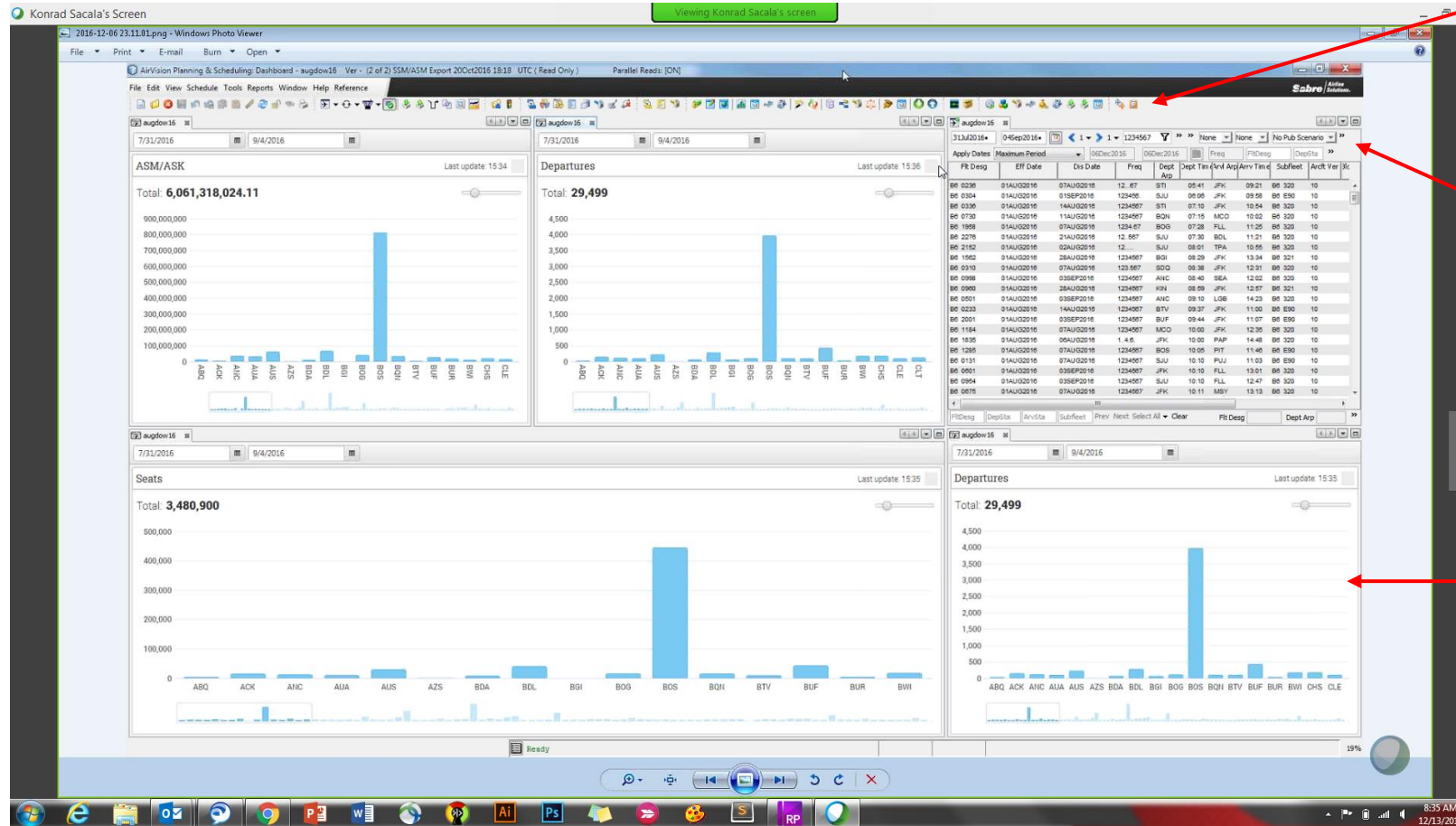
Schedule Manager

Schedule Manager is a comprehensive schedule-administration solution that offers intuitive ways to create, visualize, edit, optimize and share an airline's operations plan.

[READ MORE](#)

NPS would combine the workflows of these two products

AVPS Dashboard



Long running ungrouped toolbars making it impossible for the user to remember what each individual icon represents.

Form elements crammed together at the top of tables.

Users wanted to customize the charts and have more control over what the system generated.

AVPS Flight Display

AirVision Planning & Scheduling: Leg Flight Display - Cindy-Schedule Ver - (3 of 3) Merged from version 32767 of 'temp_import_name.8927' 19/Jan2016 15:56:26 UTC Parallel Reads: [ON]

File Edit View Schedule Flight Display Tools Reports Window Help Reference

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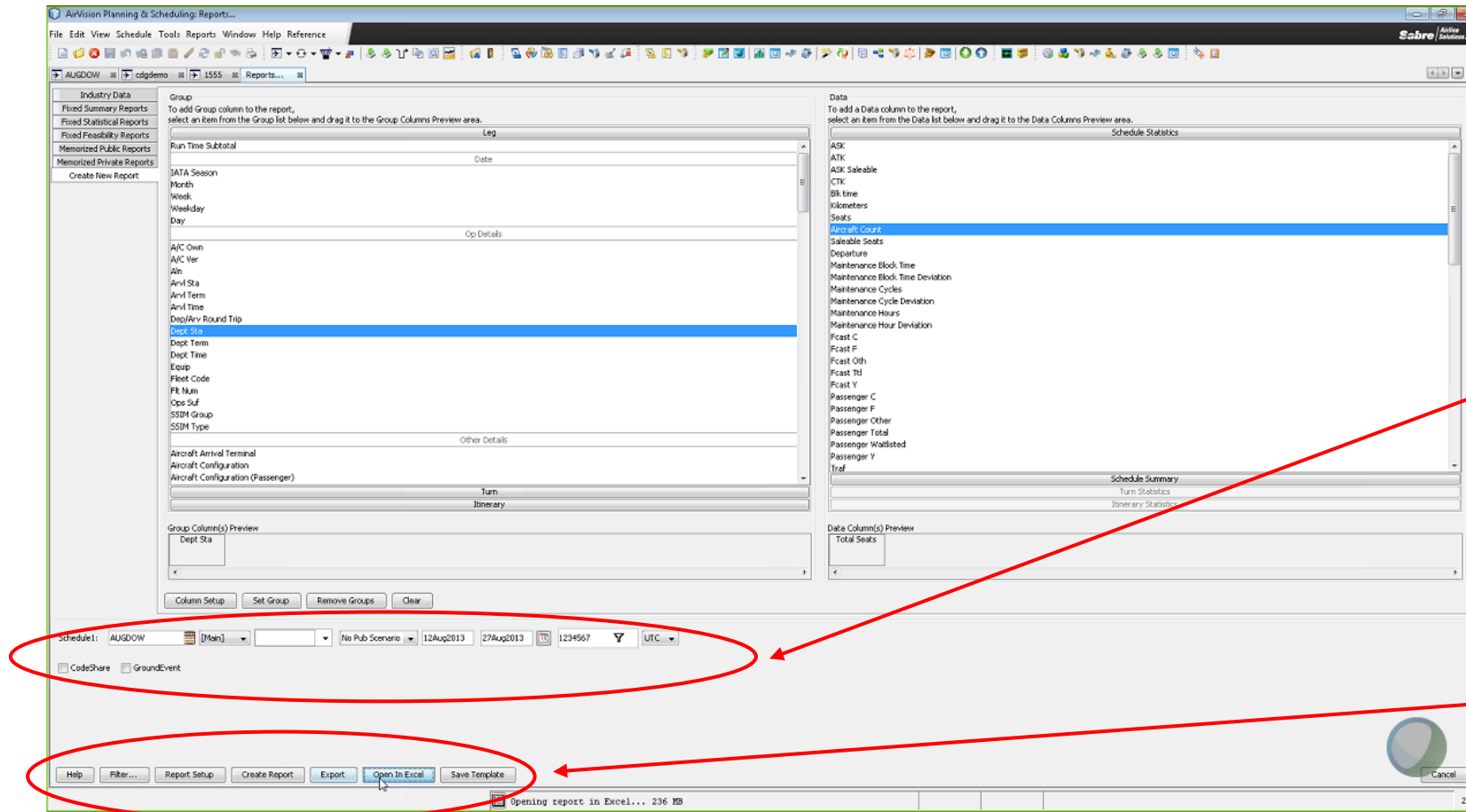
Long running ungrouped toolbars making it impossible for the user to remember what each individual icon represents.

Run on form elements ungrouped and crammed together at the top of tables.

Important actions the user might take are unemphasized as links or buttons.

Dead space. Unbalanced visuals.

AVPS Reporting

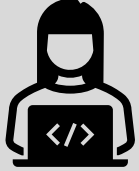


The search criteria for an analyses to be included in the report was positioned at the bottom of the page although it was a first step in using this workflow. Placement and hierarchy of content was a problem.

Important actions necessary for the user to complete their reporting task hang low on the page without any visual clarity.

Profit Mgr

- Create Profit Analyses
- Modify/Edit
- Review
- Publish



Schedule Mgr

- Manage Schedules
- Modify/Edit
- Review
- Publish



About Schedules and Analyses

Airline schedules include flight information such as flight arrivals and departures, airports, etc.

Analyses are system generated. They should be called analyses and not schedules because they include profit forecast metrics (KPIs).

Profit Managers are often comparing these forecast analyses and looking for ways to increase their airline's revenue. Data visualizations help them identify opportunities as well as problem areas and support the decision of which schedule is the optimal one to go with for any one market or flight.

NPS Overview and Objectives

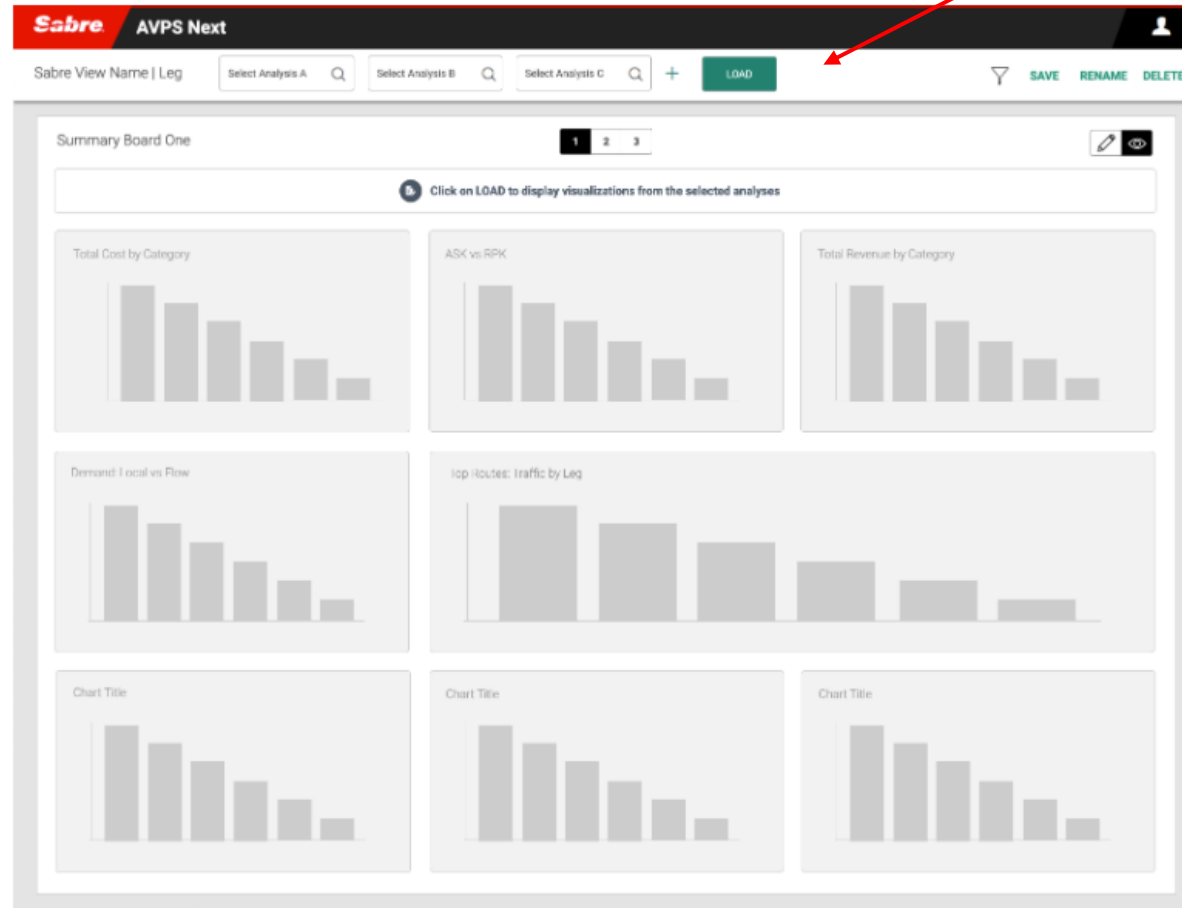
PERSONA: The user is a Profit Manager or a Schedule Manager with an airline which may or may not have been using Sabre's AVPS application. Because they have similar overlapping tasks we want to merge the workflows of both personas into a new tool called NPS (Next Generation Planning and Scheduling) that is more efficient with more options for customization.

The new tool will have a dashboard as well as a section for analysis comparison and reporting. There were to be numerous other workflows added but in these early stages we concentrated on just a few. The reporting aspect of the tool is the focus of this presentation.

GOAL: The intention is to furnish the user with a more streamlined planning and scheduling application that will meet all their needs rather than require they jump in and out of other applications to perform the necessary tasks of their job. The intention is to transform the look and feel of AVPS using Sabre's new enterprise design language (Spark) and to design it as a web based application moving away from it's current form - Java Swing.

Part A: View Setup

The section below header is reserved for analysis selection and filtering.



Part A: The View Setup

User will need to select the analyses they want to compare (up to 5).

Filtering: Only one filter could possibly be an option at this point - the ability to select an airline. Most users will select their own airline but may want to select a competitor airline. Filtering via Departure station and Arrival station may be added in the future.

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User loads the data.*Chart containers are placeholders if the user has not loaded data before. Otherwise the charts would be colorful and showing the last set of data from analyses the user had chosen.

This is called the 'View Setup'.

Part B: Summary Board

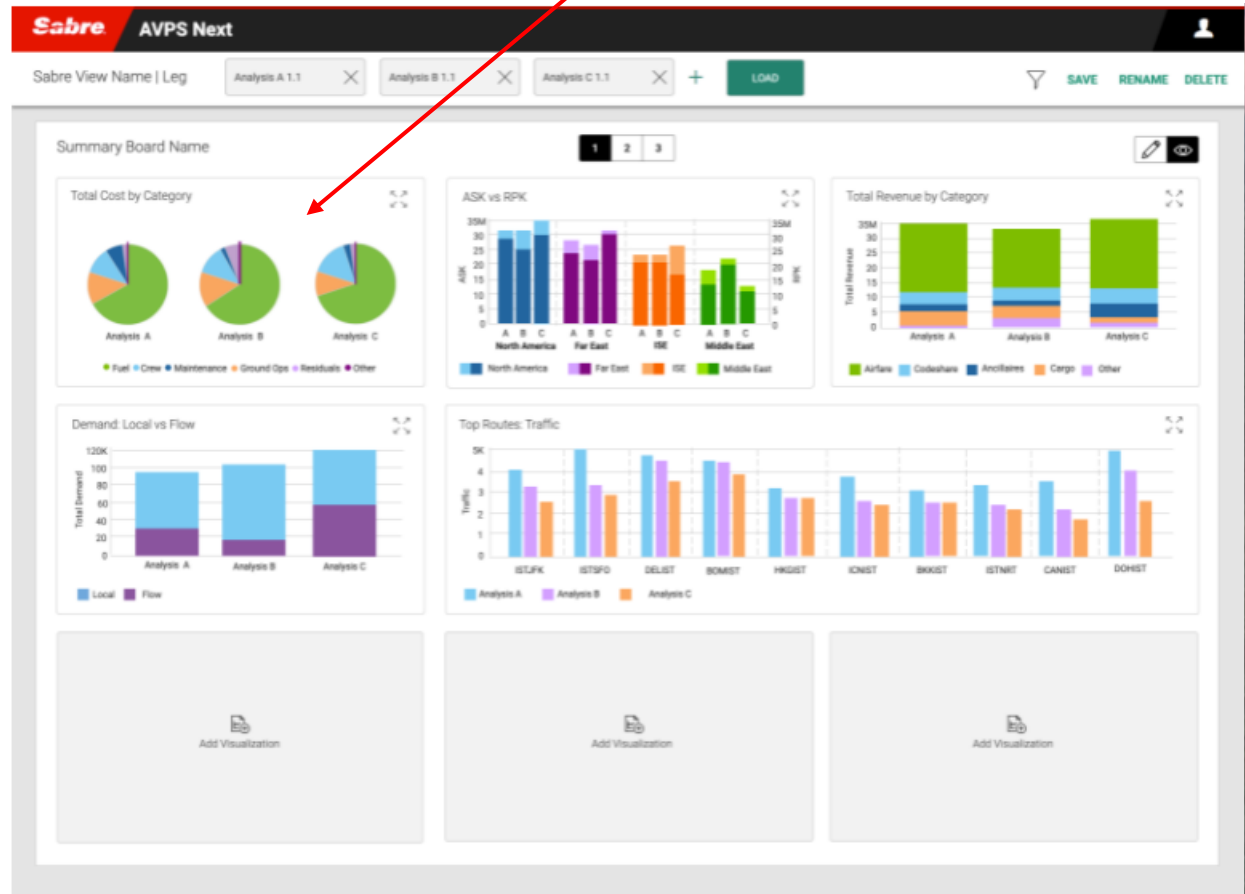
When Load is clicked, the data populates the charts showing comparisons with the most commonly viewed KPIs.

Part B: Summary Board

User has loaded the data.

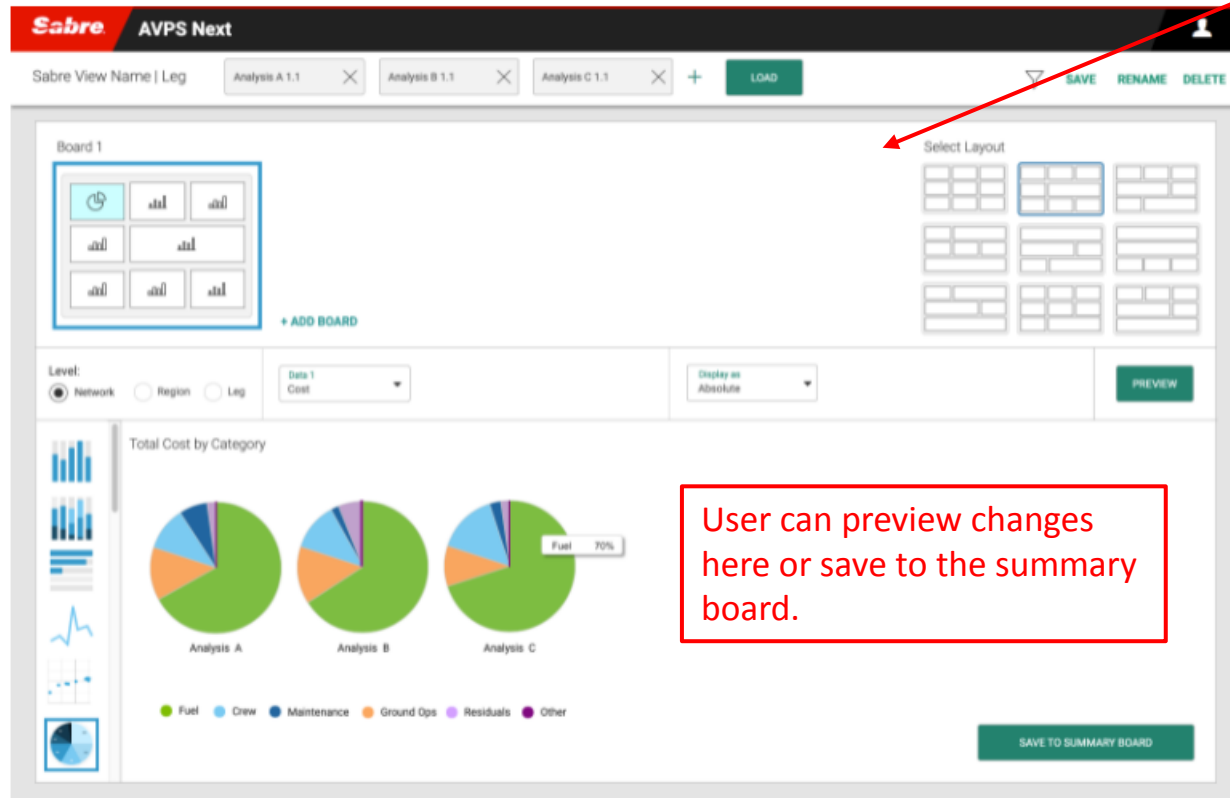
Result: A dashboard like presentation of data visualizations with summary data for various KPIs.

- User may want to establish what KPIs they want to see in the summary before running the evaluation
- If user does not set what KPIs they want to see prior to running the evaluation a default selection of KPIs will appear based on what were the popular choices at the conference workshop.
- Users can view a chart in edit mode or presentation mode.
- Users can customize their charts and change the layout of the summary boards.
- Users can pop out the charts enlarged within modals and download the image and/or export as Excel file.



Part C: Visualization Sandbox

User can change the layout of boards, chart type and set parameters for the data set to be viewed.



User can preview changes here or save to the summary board.

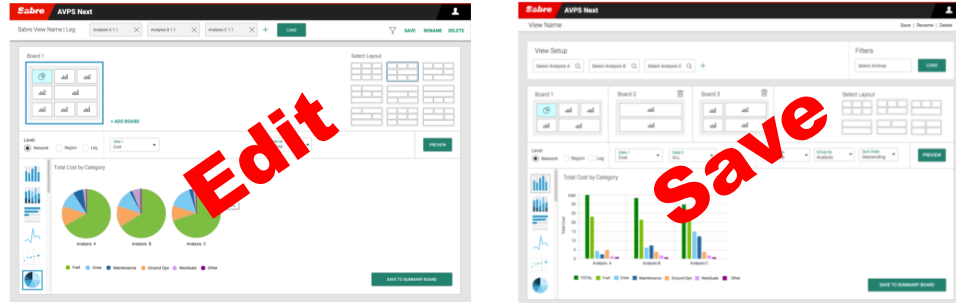
Part C: Visualization Sandbox

In edit mode the user can navigate to the sandbox and customize a chart.

Result: Customized charts that give insight to the KPIs critical to an evaluation of flight schedules.

- User can select the data or KPIs they want to visualize in their charts.
- User can select or change the chart type.
- Users can add more Summary Boards and change the layout of the boards.
- Users can preview any customizations before saving to the Summary Board.

Part D: Saving a View



Part D: Saving a View

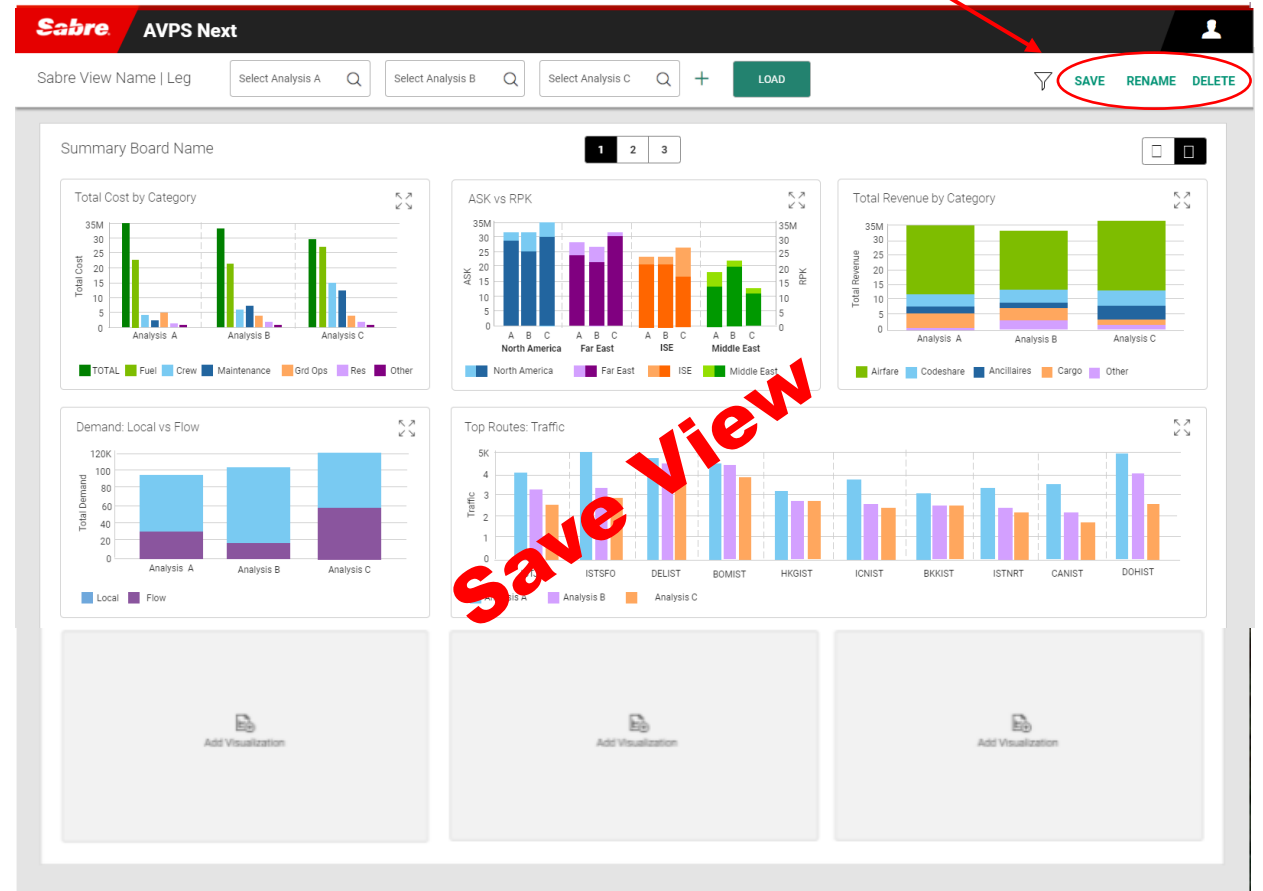
After user has finished with customization of charts and exited the Visualization Sandbox they will need to save the view.

User will have the option to save the view they created.

Views will be saved to a list the user can access at another time. This is important so they will not have to reselect the same analyses and customize their data visualizations again if they want to come back and work further with that same data.

NOTE: By default the next time the user opens the reporting tool they will see what analyses and visualizations were last loaded OR they can go to the list and select a view previously created.

When user has exited the Sandbox they can Save View, Rename, or Delete as a final step



Step by Step Workflow

