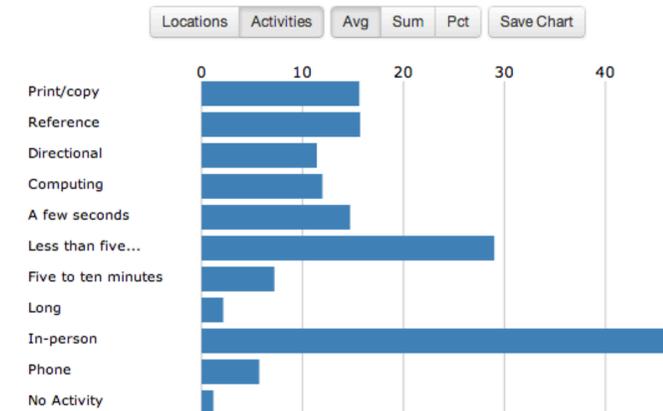


Data analysis capabilities

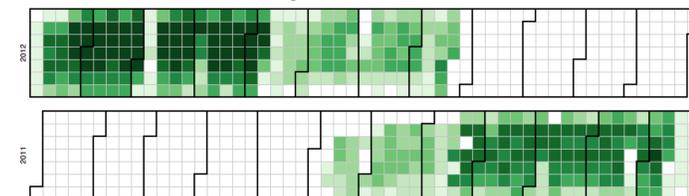
Suma's data analysis tools allow users to explore their data through a web-based interface. Users can easily change settings to view data from different collecting programs, locations, activities, and time periods. Suma currently provides an interactive time-series, the ability to splice data by time of day, views of proportional activities and location counts, and a calendar heat map.



Data exports

- Chart images.
- Raw comma-separated data for use in spreadsheet applications.
- Useful summary data (including counts and percentages by year, month, and day of the week for all locations and activities).

Calendar heat map



NCSU Libraries usage

- Twice-daily library head counts
- Detailed activity-annotated head counts during sampling periods
- Learning Commons service desk transaction (e.g. reference) tracking
- Special Collections researcher transactions
- Usage of soon-to-be-opened Hunt Library

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What is Suma?

Suma is an open-source tablet and web-based assessment toolkit for collecting and analyzing observational data about the usage of physical spaces and services, developed at North Carolina State University Libraries. The tool streamlines existing data collection, enables fast, hassle-free mobile data collection, provides sophisticated data analysis and visualization capabilities for non-technical users, and promotes observational data analysis as an integral part of service and space design and day-to-day planning.

The need

Many libraries produce manual head counts or activity counts for physical spaces and services, but struggle with the difficulties of collecting, organizing, storing, and analyzing such data, significantly limiting its use. The availability of tablet devices has created an opportunity to simplify and encourage the collection of fine-grained data about the use of library services and physical spaces. Suma – which can be used on a tablet or a desktop browser -- streamlines collection and centralized management of space usage data and enables rapid, sophisticated quantitative data analysis that reduces technical barriers to employing usage data to aid space and service design.

Improving spaces and services

Suma adds value to observational data analysis in several ways:

- Improved decision-making vis-a-vis service and space design.
- Error reduction and improved data collection compliance.
- More expansive data collection and analysis possibilities at a reasonable cost in time.
- Cross-departmental availability of data previously encapsulated by departmental silos.

Data collection

Data exploration

