Real Time PI Reporting

Presented by Liz Rietz – Sr Business Systems Analyst

BUSINESS OPPORTUNITY

The Finance Team would like to stream line the faculty financials reporting that maintains consistency across all faculty members.

BUSINESS QUESTIONS

{ As a faculty member/supporting admin, I would like to know: }

- When will I run out of funding?
- How much money do I need to raise?
- How many people can I hire? And for what term lengths?
- What is the remaining balance I can spend on each account?
- What accounts are new are about to expire?
- Are my students and staff allocated through the end of their appointment/graduation?

BUSINESS SOLUTION

Leverage MIT's license of Tableau Online to automate reports by accessing information stored in MIT's data warehouse, which are updated daily.

REPORTING BENEFITS

- Tableau Online available with any browser on laptop, mobile, tablet
- User security controlled through kerberos id and tableau permissions
- Data updates daily based on data warehouse schedule
- Reduction in human errors – no more data manipulation, cut and pasting excel downloads
- Drill down capability to line item detail
- All tools were available internally through MIT or free
- Scenario building tool to help answer the questions: "How many people can I hire?" and "How much money do I need to raise?"

TECHNICAL RESOURCES USED

Input Sources

- MIT Data Warehouse

Google Sheets

- Analyst enter projections

Data Transformation

pentaho A Hitachi Group Company

- Blends data from input sources

Java

- Allows fiscal officers to refresh tables after projection changes

PostgreSQL

- Database stores tables from blended data using SQL

Reporting Tool

tableau

- Postgres Database is table source
- Create dashboards within Tableau Desktop
- MIT has Enterprise site License

FINAL OUTPUT

tableau ONLINE

RESOURCES

MIT Data Warehouse: https://ist.mit.edu/warehouse
Google Sheets: https://www.google.com/sheets/about/
Pentaho Community Edition: https://community.hds.com/docs/DOC-1009931-downloads

PostgresDB: https://www.enterprisedb.com/
PostgresSQL: https://www.postgresql.org/
MIT Tableau Access: ttps://ist.mit.edu/tableau/service

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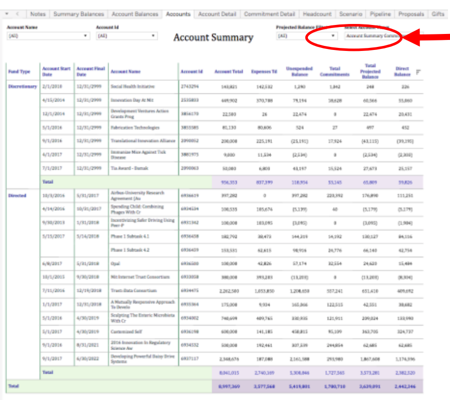
Tableau Online Views: Report to quickly identify account direct balances, headcount reporting, expense details and more

Account Summary



Tab Highlights

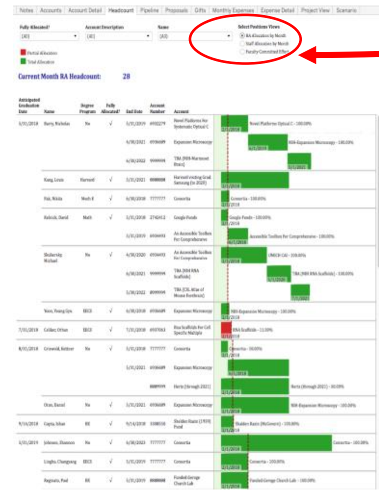
- Multiple views on one tab
- Easily identify remaining account balance after F&A
- Filter on Account Number/ Account Name or Positive, Negative values
- Show commitments broken out by PO or Salary
- Switch between authorized and obligations totals

Account Detail

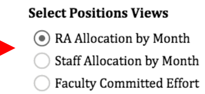
Tab Highlights

- Award information in the header
- Additional Notes as inputted by analyst
- Displays budget (if available) and expenses by categories team determines
- Detail of projected commitments at personnel level
- Detail of PO commitments source from SAP
- Graph highlighting budget to actuals by cumulative amount and month

Headcount

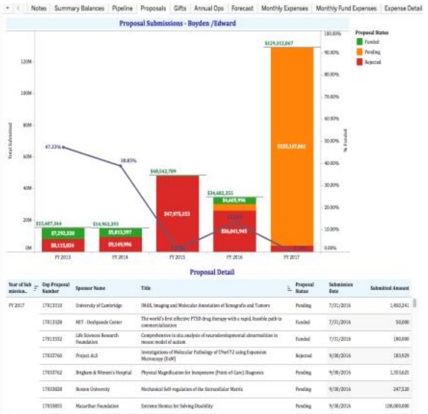


Tab Highlights



- Radio button to select RA, Staff or Faculty summer views
- Column indicates whether personnel are fully allocated through end date
- Colored bar graphs to show if personnel is 100% allocated within a month
- Filters to identify personnel by name, account, fully allocated
- Degree program column for RA's in an outside program

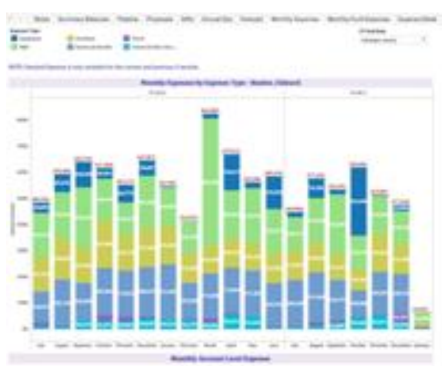
Prposals



Tab Highlights

- Colored bar graph to show accepted, rejected and pending proposals by FY, including total count and dollar amount
- Line chart depicts percent funded by each FY
- Detail proposal information on bottom table sorted by FY
- Clicking on a section of the bar graph filters the the table below

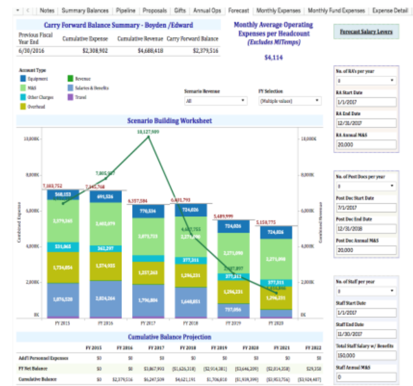
Monthly Expenses



Tab Highlights

- Monthly bar graphs track spending by expense category
- Ability to filter by account name
- Clicking into an expense section provides summary level information
- Clicking into summary level information displays transaction detail
- Expense transaction detail can be searched by vendor

Scenario Builder



Tab Highlights

- Expense and Revenue projections for 3 future FY's
- Expense projections based on rolling 12-month averages
- Revenue projections based on projection sheets
- Forecast Levers to make estimates for future RA's, Post Docs and/or staff
- Running cumulative balance to see ending balance for each projected FY