Principal Investigator Portfolio

An Innovation in Research Administration

Date: May 5, 2017
Project Title: Cal Answers Principal Investigator Portfolio – Projections
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Project Timeline: September 2015 - October 2016 -- Phase 3: Projections

UCB Project Team

Heidi Wagner – Program Manager
Teal Sexton – Functional Lead
Frances Kendall – Technical Lead
Naresh Meda, Aswan Movva – Developers
Peter Cava, Sameer D'Souza – Data Architects
Quin Bligh – Database Developer
Heidi Van Yang – Communications
Jeremy Linneman – Training
Jenny Su – Business Analyst

Summary

Cal Answers PI Portfolio Projections is a game changer! With over $2 billion in annual research funding, UC Berkeley is a massive innovation engine that shapes lives across the globe every day. In support of the research mission of the University, the PI Portfolio Projections project delivered an integrated set of standardized tools and corresponding business process guides for Research Administrators and faculty to manage their financial activities. The system provides an accessible place to create and utilize projections and verify actual expenses.

The project navigated challenging political waters to drive consensus for a standard business practice for managing Faculty funds and spending plans. The technical team proposed and implemented an innovative low cost solution with an intuitive interface and enhanced functionality. Effective change management secured significant adoption, with currently over 1,000 Faculty and their assistants accessing PI Portfolio!

Under strong project management, the project was brought in on time and under budget. More importantly, it created standardization of the Campus Shared Services Research Administration business processes and visibility for faculty into their funding streams any day, from anywhere in the world!

Solution

The initial release of PI Portfolio provided a reporting tool to empower faculty with access to award balances, expenses, transactions and personnel costs. The next release added non-sponsored funding sources, such as gift funds, departmental funding and more. While these first two releases were a welcome source of information, the full financial picture was not available because projections were still made manually outside the system, in a variety of disparate processes by research administrators (RAs). Out of this came a vision for a standardized form that would give the RA the ability to quickly make projections within PI Portfolio and instantly review the impact on future fund balances.

PI Portfolio Projections replaced existing Excel systems, created streamlined business processes, reduced manual work, eliminated common errors and provided a mechanism for solving the issue of inconsistent communication between faculty and RA. The projections input form pre-loads appointment data from the campus Human

Resources system (PeopleSoft HCM), auto calculates indirect costs, retirement & benefits and more! Above all, it provides faculty with full visibility into their funding streams, both current and looking five years into the future. PI Portfolio is the #1 most highly used dashboard in the campus enterprise reporting system by a large margin and over 400 faculty now have a full suite of projections live in the system!

The team delivered PI Portfolio Projections in April 2016, followed by two major enhancement releases in June 2016 and October 2016. An ongoing Operations Team now meets monthly to ensure the ongoing functionality of the tool. This team will ensure the tool is modified to work with UCPath when it goes live at UC Berkeley!

Collaboration

The PI Portfolio Projections Project was an inspiring collaborative engagement across teams. The project was sponsored by Campus Shared Services, in partnership with the Controller's Office and the Office of the Chief Financial Officer, and was guided by an Advisory Group, a Faculty Focus Group and a Research Administration Focus Group. Program Management was provided by Heidi Wagner, the Assistant Dean for Administration for the School of Social Welfare. Teal Sexton of the Cal Answers Functional Team led the design, testing and implementation in partnership with the Information Services and Technology Enterprise Data Warehouse team, led by Frances Kendall. Campus-wide change management and communications, particularly faculty-facing, were driven by Heidi Van Yang in collaboration with Campus Shared Services personnel who delivered communications within their units.

To ensure that the team built a tool that would meet the needs of both Faculty and Research Administrators, significant outreach was done as part of the project. The team engaged Research Administrators across campus during every phase of the project. Research Administrators from across disciplines and departments were engaged in multiple design sessions. As differences in practice arose, the team worked to achieve consensus on the design, through collaborative sessions that focused on functional capability and technical feasibility. The project leads met regularly with campus leaders, including the Advisory Group, to address issues, risks and roadblocks throughout the project, keeping it on track and on time. In addition to formal User Acceptance testing, the team went out to departments to demo the tool for Faculty, their Research Administrators, and Departmental Administrators and captured their feedback.

Despite the tight development timeline for the initial release, the team was able to efficiently integrate user feedback and design suggestions, including over fifty modifications based on input received during the User Acceptance phase. After the initial go-live, the team continued to solicit feedback from campus and incorporated major enhancement requests in two additional releases during the first six months of system stabilization. As part of the project's transition into on-going support, the Operations team continues gathering enhancement requests to be prioritized for future releases. The expansive collaboration and input that went into these first releases resulted in very few help desk tickets and additional requests after the last release in October 2016. The teams enjoyed project meetings and developed lasting relationships that continue to facilitate their work serving this important Berkeley function.

Technology

A goal of the project was to create a tool that was low cost to build and maintain, easy to use, yet robust enough to provide functionality that would enhance a Research Administrator's ability to manage Faculty funds. To accomplish this the team choose an innovative solution using an APEX input form integrated into the Business Intelligence platform for the campus enterprise reporting system, Cal Answers. By using an integrated solution, projection information is immediately available with updated projected balances in PI Portfolio reports. The innovative design of the system provides Human Resources data to pre-populate personnel projections, and then

uses database triggers and procedures to automatically calculate projections for indirect costs, GAEL and retirement & benefits. This technical achievement eliminated much of the manual work that previously went into research funding projections.

Feedback

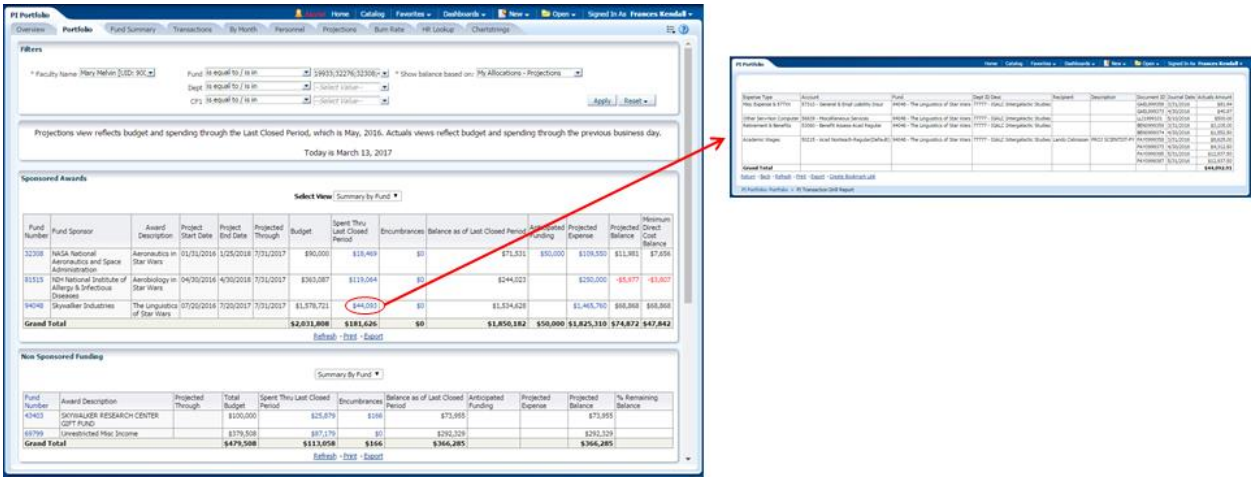
"In 2011 I was asked to chair a committee reviewing the technologies in place for several large research administration units (Biosciences, Engineering, Natural Resources, and others) that were moving into a shared services organization. Each unit had developed its own methods for keeping faculty informed about spending on their grants. That function was critical to ensure that 1) adequate funds remained to continue a project to completion, and 2) that large amounts of money would not be returned to the sponsor unspent. While effective, none of the methods were scalable to an enterprise, and many smaller units had no tools at all.

In parallel, a faculty advisory group to my office articulated the need to know grant spend rates on a self-service basis as one of their highest priorities. Fast forward to today: the campus now has a faculty-facing enterprise tool to see spending rates and create spending projection scenarios to support the conduct of research. The impact of this effort cannot be understated. In addition to greater visibility into spending on demand, PI Portfolio means that costly home-grown departmental systems no longer need to be maintained, and that standard and consistent information is provided to faculty across the campus in both small and large well-resourced departments. PI Portfolio is the successful result of a rare partnership between faculty, the administrators who serve them on the front lines, the Finance Organization, and the campus Data Warehouse team."

Neil Maxwell
Director Research Administration & Compliance Office

Highlights

The **Portfolio Report** gives the Faculty an overview of all of his or her funding, including budget, expenses, encumbrances, current balance, projections and projected balance. Drill down functionality takes the Faculty from the aggregate value to transaction level details.



The **Personnel Report** displays a monthly breakdown of actual and projected payroll cost for an employee including wages, fee remission, retirement & benefits and General, Automobile, and Employment Liability (GAEL) expense.

By Employee Only (default)

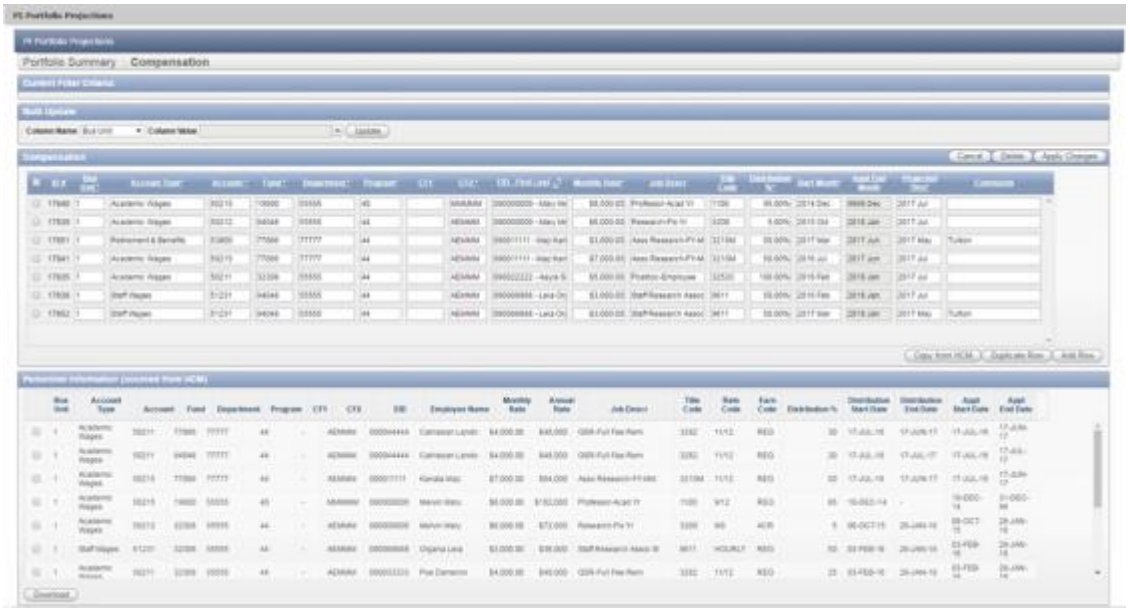
		Actuals						Projections							
Employee Name		2015 Dec	2016 Jan	2016 Feb	2016 Mar	2016 Apr	2016 May	2016 Jun	2016 Jul	2016 Aug	2016 Sep	2016 Oct	2016 Nov	2016 Dec	
Aayla Secura	Wages	$165	$165	$165	$165	$165	$329	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	$5,000	**$36,153**
	Fee Remission														
	Retirement & Benefits	$33	$33	$33	$33	$33	$66								**$231**
	GAEL	$2	$2	$2	$2	$2	$3		$20	$20	$20	$20			**$91**
	Subtotal	**$199**	**$199**	**$199**	**$199**	**$199**	**$398**	**$5,000**	**$5,020**	**$5,020**	**$5,020**	**$5,020**	**$5,000**	**$5,000**	**$36,475**
Dameron Poe	Wages	$1,971	$2,493	$1,971	$1,971	$1,971	$3,942	$1,000	$2,000	$2,000	$2,000	$2,000	$2,000	$2,000	**$27,320**
	Other Employee Comp	-$391	-$7	$80	$80	-$21	-$143								**-$402**
	Fee Remission	$0		$691	$676	$777	$0								**$2,144**
	Retirement & Benefits	$435	$664	$652	$652	$652	$869	$360	$780	$780	$780	$780	$780	$780	**$8,964**
	GAEL	$9	$9	$9	$9	$9	$19	$10	$27	$109	$14	$27	$20	$20	**$292**
	Subtotal	**$2,024**	**$3,160**	**$3,403**	**$3,388**	**$3,388**	**$4,687**	**$1,370**	**$2,807**	**$2,889**	**$2,794**	**$2,807**	**$2,800**	**$2,800**	**$38,318**
Darth Vader	Wages	$0	$2,188	$4,375	-$104	$2,121	$4,241	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	$3,000	**$33,820**
	Retirement & Benefits							$1,320	$1,380	$1,380	$1,380	$1,380	$1,380	$1,380	**$9,600**
	GAEL	$0	$21	$42	-$1			$30	$45	$44	$30	$75	$30	$30	**$345**
	Subtotal	**$0**	**$2,208**	**$4,417**	**-$105**	**$2,121**	**$4,241**	**$4,350**	**$4,425**	**$4,424**	**$4,410**	**$4,455**	**$4,410**	**$4,410**	**$43,766**
Lando Calrissian	Wages				$8,625	$4,313	$25,875		$800	$800	$800	$800	$800	$800	**$43,613**
	Retirement & Benefits				$3,105	$1,553	$9,315								**$13,973**
	GAEL				$82	$41	$246		$8	$8	$8	$8	$8	$8	**$417**
	Subtotal				**$11,812**	**$5,906**	**$35,436**		**$808**	**$808**	**$808**	**$808**	**$808**	**$808**	**$58,002**
Leia Organa	Wages	$2,191	$2,191	$2,191	$2,191	$2,191	$4,382	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	$1,500	**$25,837**
	Fee Remission	$0		$2,238	$2,238	$2,238	$0								**$6,715**
	Retirement & Benefits	$0		$626	$626	$626	$0								**$1,877**
	GAEL	$21	$21	$21	$21	$21	$42	$15	$15	$22	$29	$30	$15	$15	**$287**
	Subtotal	**$2,212**	**$2,212**	**$5,076**	**$5,076**	**$5,076**	**$4,424**	**$1,515**	**$1,515**	**$1,522**	**$1,529**	**$1,530**	**$1,515**	**$1,515**	**$34,716**
Mace Windu	Wages	$659	$988	$705	$796	$880	$2,148								**$6,257**

Rows 1 - 25

A **By Month** report displays a monthly breakdown of beginning and ending balances, for six months of Actuals and six months of Projections. This powerful view shows activity by expense categories.

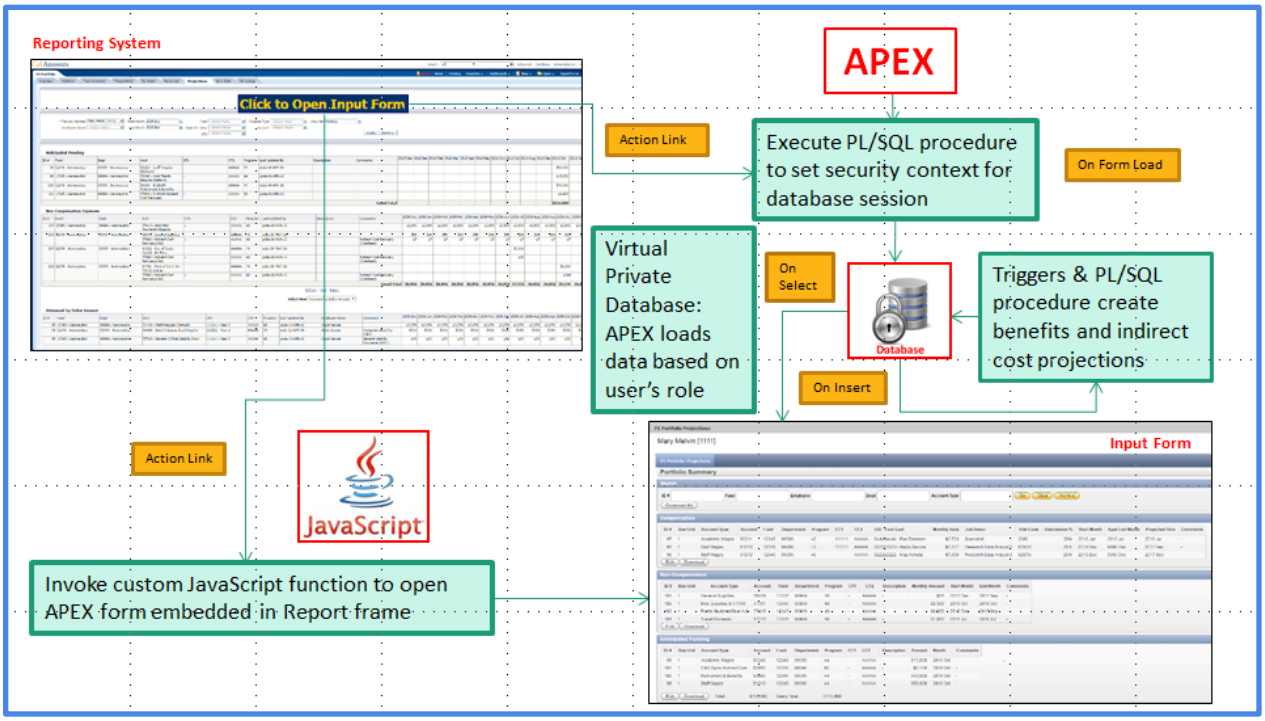
A **Burn Rate** report with the average monthly expense for a fund by expense type and an **HR Lookup** report are included to assist Research Administrators in making projections.

The **Projection Input Screen** has drop downs for valid values to assist with data entry. HR information for the funds are pre-populated on the screen.



The **Projection Report** provides the ability to display the projection information by dollar amount or for personnel projections by percent distribution.

Architecture



For additional information and a video of PI Portfolio:

PI Portfolio training videos
https://www.youtube.com/watch?v=Wdej3fWECZQ&feature=youtu.be

https://www.youtube.com/watch?v=ss6cOQNM_G8&feature=youtu.be

About PI Portfolio
http://calanswers.berkeley.edu/pi-portfolio/about-pi-portfolio