

## DivData Port Web Application

UC Santa Cruz  
Information Technology  
Services



“On its new platform, DivData allows us to securely and easily manage highly specialized, complex academic human resources information, to provide critical decision support data for the campus, and to quickly adapt the system in response to a constantly changing policy environment. We would be lost without it.”

- Pamela G. Peterson, Assistant Vice Chancellor, Academic Personnel

### Overview

The original DivData application was built over a ten year period by a principal academic personnel analyst on the FileMaker Pro software platform based on central, divisional, and departmental academic HR/personnel end user requirements. This application contains important academic HR/personnel information and over this time period provided essential functions to the central and divisional academic personnel business community at UCSC, with minimal funding. The software platform and its supporting environment were in a state which required a major upgrade in order to comply with UC systemwide standards such as the Business and Finance Bulletin, IS-3 Electronic Information Security and IS-10 Systems Development and Maintenance Standards. Furthermore, the FileMaker Pro 5 version was unsupported and an insecure platform with significant limitations on future growth. For efficiency and security reasons there was an increasing need to automate data exchange with other emerging and existing campus systems. The DivData Port to Web Application project grew out of these requirements.

In partnership with the Academic Personnel Office (APO), the ITS Application and Project Management (APM) and Business Systems Group (BSG) jointly specified a project proposal that resulted in the DivData Port to Web Application. The identified goal was to create a modern web-based database application utilizing newly identified ITS APM software standards tools and platforms, such as: Linux, Apache, MySQL, and PHP (LAMP) stack; Zend PHP framework; Shibboleth campus authentication and the emerging ITS Systems Development Lifecycle. APO staff specified the DivData features they wanted ported and some new capabilities. This was accomplished with a relatively small core team of 2 full time principal team members.

## About DivData

DivData is used to track employment, salary history, promotion reviews, senate service, and leaves of absence for the academic employee population on campus, consisting of more than 3,000 active records. Staff in the academic divisions, central Academic Personnel Office, and the Academic Senate Office use DivData to track eligibility, recommendations, and case status for the academic personnel review process. The information in DivData is supplemental to PPS, tailored specifically to reporting requirements in such areas as faculty workload, advancement, retention, total compensation, and diversity. Data from DivData is regularly reported to the Regents and the state legislature via UCOP, as well as on an ad hoc basis to UCOP, the Academic Senate, campus administration, labor unions, and HR benchmarking organizations.

DivData is also the sole repository of demographic information on applicants for academic recruitments. This information is used by APO and the Office for Diversity, Equity, and Inclusion to support outreach efforts, to ensure compliance with fair hiring laws, and to respond to audits from federal agencies such as DOL and the OFCCP. DivData information flows downstream to Identity Management where it augments and refines PPS data, and to the Curriculum and Leave Planning system which assists academic departments in managing curricular planning and budgeting.

## Highlights

Key features of the DivData port include:

- **Campus Identity Management Integration** – Users log in via existing campus Shibboleth authentication system.
- **Configurable Access Control** – Administrators can configure role-based access control down to the column level.
- **Faculty Histories**– Full histories for faculty salary, leave, administrative service, and senate service.
- **Online Review Tracking**– Provides online tracking of key milestones in the faculty peer review process for promotion and salary increases.
- **Recruitment Tracking** – Tracks faculty and researcher applications through the process to hiring. Solicits and collects applicant demographic information.
- **Reporting** – Ad-hoc and custom reporting on all data.
- **Interfaces** – Supplies faculty profile information to the campus Identity Management system. Supplies faculty workforce information to the campus Curriculum Leave & Planning system. Receives applicant information from the School of Engineering recruitment intake system.

## Project Details

- The DivData Port project was a multi-year effort between the Academic Personnel Office and Information Technology Services. Here are the high level milestones.
  - Feb 2009 – Charter Approved (project, scope, budget, & schedule )
  - Sep 2009 – Functional Specification Approved (Prototyping)
  - Sep 2010 – Design, Coding, Unit and Integration Testing Completed
  - Oct 2010 – System Test Completed
  - Oct 2010 – Go Live
- This collaborative endeavor yielded one system that is meeting the needs of a wide range of university users: Academic Personnel staff, Divisional Academic Personnel Coordinators, Academic Department Managers, Planning & Budget Office staff, Academic Senate Office staff, Office of Diversity, Equity, and Inclusion staff, and faculty members. Currently there are a total of 114 active DivData users.
- The technical highlights of the system include the following:
  - Linux, Apache, and MySQL backend
  - Web application written in PHP
  - Zend PHP Framework
    - Model-View-Controller Design
    - Database Connector
    - AJAX Support
    - Email Support
    - Data Validation
    - SQL Injection Prevention
  - jQuery & jQuery UI Javascript Libraries
    - Cross-Browser
    - AJAX
    - Tab Interface
    - Sortable Tables
    - Dialog Boxes
    - Themeable
  - Training and Self Help Tools
    - Adobe Captivate
    - Adobe Flash

## Feedback

“For those of us who rely on DivData to maintain, organize, and report on faculty personnel, leave, recruitment, service, and other important actions, this application is a godsend. Its organization of data, automated features, offering of standard reports, and ad hoc reporting functionality allow us to achieve crucial efficiencies so that we can focus on more critical and essential functions of our jobs, knowing that the information stored in DivData is at our fingertips whenever we need it, in the configuration we need it. The flexibility of the application and the competency of the assigned programmer make communications, feedback, and improvements an easy on-going process. This is an application that that is literally indispensable and that we use every single day to manage academic processes, locate information, compile and utilize important reports, and to record constant personnel decisions that are being made across campus. DivData is a key resource, serving as a "super-HRIS" and, personally, I can't imagine what it would be like to try to do academic personnel work without it.”

–Anne Callahan, Humanities Academic HR Manager

“I'd like to take a moment to let you know what a great experience I've had working with IT on the DivData Port Project. This was a two year project to move our 10-year-old database on academic employees from FileMaker to LAMP. It involved transferring all of the existing data to the new platform as well as cleaning up the database schema and developing a new, web-enabled user interface. In the process we also improved security and automated several critical interfaces. One hundred users have been live on the new platform for several weeks now and things are going smoothly. The IT staff who worked with us on the project are fabulous. They are highly professional, very knowledgeable and really fun to work with. I'm particularly grateful to Wes Gray, John Guertin and Scott Councilman. They have learned way more than any rational person would want to know about the academic review process and they've given us a flexible system that supports the process cleanly and that users find intuitive. Although I haven't worked with them directly, I know that Phil Meads and Haifang Telc have been very generous with their expertise. Thank you very much for supporting this project.”

–Nancy Degnan, Senior Analyst, Academic Personnel Office

### Project Team Members

<b>ROLE</b>	<b>NAME</b>	<b>UNIT</b>
Executive Sponsor	Pamela Peterson	Academic Personnel Office
Functional Project Managers	Nancy Degnan, Grace Little	Academic Personnel Office
Analyst	Georgina Chang	Academic Personnel Office
Technical Project Managers	John Guertin, Scott Councilman	Information Technology Services
Lead Developer	Wes Gray	Information Technology Services
Database Administration	Phil Meads	Information Technology Services
Systems	Haifaing Telc	Information Technology Services
User Representative	Anne Callahan	Humanities Division

### On the Web

Application Site: <https://divdata.ucsc.edu>

### Submitted By

John Guertin  
Information Technology Services  
Applications & Project Management Unit  
Business Systems Group Development Manager  
University of California, Santa Cruz  
[jguertin@ucsc.edu](mailto:jguertin@ucsc.edu)  
(831) 459-5754