

# **Academic Personnel Recruit**

*Online faculty recruitment: more effective hiring, reduced cost*

University of California, Irvine

Application for  
2009 Larry L. Sautter Award for Innovation in Information Technology

## **Executive Summary**

UC Irvine's Academic Personnel Recruit application delivers a standard online faculty recruitment process. Recruit has reduced turnaround time in responding to applicants, made it easy for all schools to hire faculty quickly and effectively, and reduced staff burden.

Developed collaboratively between the Office of Academic Personnel (AP) and Network & Academic Computing Services (NACS), Recruit has enhanced the way UCI staff and faculty manage recruitments, accept applications and supporting reference letters, review candidates, and ensure diversity.

Recruit originated in a single academic department and was later transformed into a campus-wide application. Our current task is to expand Recruit into a software service that supports multiple UC campuses while reducing traditional barriers to cross-campus application collaboration.

“AP Recruit brings efficiency and velocity to our academic recruitment process. Recruit facilitates the timely completion of application packages, including the submission of letters of support by references, and expedites faculty peer review of applicants while ensuring compliance with established recruitment guidelines.”

- Joan Tenma, Director, Academic Personnel, UCI

## **Paper-based Recruitment Challenges**

Variations in recruitment process across schools.

- Monitoring policies and procedures by AP office challenging; delays in implementing new or innovative processes.

Scattered and inconsistent sources of information on open faculty positions.

- Applicant confusion in finding a definitive list of open positions; application instructions varied depending on department/position.

Applicants submit documentation via mail.

- Analyst time spent verifying requirements are met; delays or errors in submission (mail is returned, international complications, postage, lost packages); time-consuming to distribute to search committee members (xeroxing and filing or scanning and emailing).

Applicants submit documentation via email.

- Analyst time spent verifying requirements are met; lost applications (email spam filtering, accidental deletion, exceeding inbox quota); time-consuming distributing documents to search committee members (printing and filing, printing for all members, or forwarding to each member).

Unclear or delayed notification of application status.

- Paper processes are dependent on staff to proceed; time spent responding to applicants and confirming receipt of application; possible miscommunication of application status (received vs. accepted vs. declined).

All application documents must be delivered to AP office for archival.

- Often an afterthought by analysts; AP staff time spent training and monitoring; entire rooms dedicated to applicant archival can be filled by extensive filing systems.

Unique challenges managing large applicant pools or many open positions.

- New schools and large grants fund several recruitments or distinguished positions that burden staff; long delays stemming from a lack of management tools that help search, sort, export, report, discuss, and flag applications.

Manual creation of mailing address labels, email distribution lists, flyers announcing visits, and various reports.

- Analyst time spent recording information electronically or by hand; mistyped addresses; reporting time-consuming and manual; error-prone due to incomplete and unverified applicant information; nature of work is routine and manual.

Xeroxing, printing, and copying of applicant CVs, supporting documentation, and reference letters.

- Negative environmental impact; drains department resources; many copies fundamentally hard to track; confidential documents left in offices, laptops, and briefcases.

Administration of a separate required diversity survey.

- Lower response rates due to delays between application submission and receiving mailed/emailed survey instructions; low response rates hinder UCI's ability to measure diversity demographics in applicant pools.

## **The Solution: AP Recruit**

Faced with a range of challenges, faculty and administrators sought out their computing groups to streamline their faculty recruitment processes. The department of Information & Computer Science (I&CS) created a web application designed to automate routine recruitment tasks. The School of Engineering and the Paul Merage School of Business took notice and began implementing systems based on I&CS's work. Academic Personnel (AP) recognized this interest as an opportunity to develop a new and innovative process for the entire campus. AP approached Network & Academic Computing Services (NACS) to help build a central faculty recruitment web application. NACS and AP collaborated closely with campus units, incorporating their requirements into a single application that worked for all schools, creating the campus-wide Academic Personnel Recruit.

## Objectives

### Standardized process

Variations in recruitment processes among campus units make it more difficult to implement new recruitment policies and procedures. Innovations and improvements take longer to roll out across the entire campus. Response to new regulations, including diversity reporting requirements, is slow. Acting on legal disputes or grievances is hindered.

Today, Recruit provides the standard for administering faculty recruitments, submitting applications, and archiving applicant documents.

### Campus-wide adoption

We knew that if the benefits of Recruit reached only a handful of campus units, we would be failing in some fundamental way. Either this would mean we were not listening to the needs of our campus, or we were ineffective at encouraging units to switch to an online process. Reaching only part of the campus would mean wasted potential.

Today, Recruit is used by every school at UCI.

### Reduced staff burden

Creating a campus-wide online standard in faculty recruitment would make little sense if staff spent more time using the new online process than the paper-based process. Easing the routine tasks of administering a recruitment was key to establishing buy-in.

Today, an average of 54 applicants per position and close to 400 for popular positions self-complete their application and diversity survey online. Traditionally manual tasks are now handled automatically within Recruit.

### Measured diversity

UC campuses are required as a federal contractor to report on and ensure diversity of applicant pools prior to candidate selection. Equal opportunity and diversity are important factors in maintaining a diverse faculty and help reduce discrimination during hiring.

Every applicant who completes an application is offered an optional diversity survey. Recruit offers AP analysts and Office of Equal Opportunity analysts to generate point-in-time reports on the growing applicant pool. These reports compare the applicant pool with national figures from similar specialties.

### **Minimized paper archives**

AP is required to retain applicant documents for at least 2 years. Storing information on roughly 10,000 applicants, 60,000 documents, 30,000 referrals, and 7,000 diversity survey responses can fill a room--and requires meticulous filing practices or we risk losing documents. In a disaster scenario, these files may be lost forever.

Since Recruit was launched, 21GB of files, surveys, and information about applicants have been archived and is accessible from one database server. All data is automatically replicated to a backup database. We perform a second nightly backup and store the data off-site to protect against a disaster in our primary data center

### **Faster application**

We want to make applying for a UCI position as quick and as pleasant possible for applicants. Unclear application guidelines, insufficient documentation, difficulty correcting mistakes, and time-consuming manual steps can only hinder our ability to hire the best faculty.

From account creation to application acceptance, the applicant is given full control over their application. They may incrementally upload files and ask for letters of reference up until the "last modification" deadline. Recruit clearly indicates which documents the applicant needs to upload and how many letters of reference are required.

The screenshot shows a web application interface with four navigation tabs: 'My Dashboard' (home icon), 'My Information' (checkmark icon), 'My Files' (warning triangle icon), and 'My References' (warning triangle icon). Below the tabs, a green notification box states 'Curriculum Vitae uploaded - 1 more file required'. An orange warning banner reads 'Please upload all required documents: 1 remaining'. Below this, a list of required documents is shown: 'Curriculum Vitae - CV.pdf (4 Bytes)' (uploaded by me on Apr 25, 2009 5:06pm, with a 'Delete file' link), 'Cover Letter' (with an 'Upload Now' link), 'Statement of Research' (with an 'Upload Now' link), and 'Statement of Teaching' (with an 'Upload Now' link').

## Faster selection & offer

Search committees are composed of faculty members. We understand that recruiting is just one of their many priorities. Removing conventional constraints to reviewing applicant files and communicating their selection preferences would improve UCI's ability to quickly select and send offers to candidates.

Once an applicant completes their application, committee members may immediately begin reviewing their documentation. Multiple individuals may access documents simultaneously, from any Internet-accessible location, 24 hours a day. This online process helps members move more quickly into the selection and offer phases of recruitment.

## Description of the Technology Employed

### Posting the Position

Once approved, an authorized Recruit (<https://recruit.ap.uci.edu/>) analyst logs into Recruit and uses a Web interface to describe a new senate-level faculty position, including what documentation and reference letters are required of applicants. While the position is open, it is displayed in Recruit's public Apply page and allows new application submissions. The analyst will also form a search committee consisting of faculty members and administrative assistants. This committee is responsible for reviewing applicant files and making a final selection.

## Accepting Applications

While job searching, an applicant visits Recruit's Apply page, which lists all open faculty positions. The applicant drills-down into a specific department and views information about open positions. When they find a position they are interested in, they begin the application process by creating an account and providing basic background information.

### **Get started: Create a Recruit ApplicantID**

Your Recruit ApplicantID is used to manage your application for this specific recruitment.

You will need:

- Current contact information
- Current employment information
- Degree information

### **Provide files & references using My Dashboard**

After creating your Recruit ApplicantID, you may log in at any time before **May 25th, 2009** to complete this application.

You may also update your contact, employment, and degree information.

To complete this application, you will need:

- 2 to 3 references and contact information
- Curriculum Vitae (Required)
- Cover Letter (Required)
- Statement of Research (Optional)
- Statement of Teaching (Optional)

### **Complete diversity survey**

After completing your application for this recruitment, you will be presented with the option of filling out a short, one page diversity survey. The information that you provide helps the University to meet its legal obligation as a Federal contractor.

When an applicant applies for a position, they see exactly what documentation and letters of reference are required in order to be considered by the search committee. As the applicant completes file uploads and solicits letters of reference, they receive immediate feedback on their completion progress.

If the position requires letters of reference, applicants may craft an email to references from within Recruit. Included in the email to references is a special token that provides secure access to log into Recruit and submit a letter. Applicants do not have access to the content of the reference letters but they can check Recruit to see how many letters were received and can send follow-up reminders if needed.

The Recruit analyst may prefer to ask an applicant's references for letters of recommendation. In this case, the Recruit analyst may opt to have applicants enter only reference contact information.

### Fulfilling Legal Requirements

Once an applicant submits all required documentation, they are presented with a survey from the Office of Equal Opportunity and Diversity. This survey is required in order to meet the University's legal obligation as a federal contractor. Survey results are submitted into a confidential pool from which diversity analysts may create reports. If these reports indicate that the pool of applicants does not match diversity demographics for similar specialties, the position will remain open until these diversity requirements are satisfied.

Gender	Ethnicity
<input type="radio"/> Male	<input type="radio"/> <a href="#">BLACK / AFRICAN AMERICAN (not of Hispanic origin)</a>
<input type="radio"/> Female	<input type="radio"/> <a href="#">ASIAN or PACIFIC ISLANDER</a>
	<input type="radio"/> <a href="#">AMERICAN INDIAN or ALASKAN NATIVE</a>
	<input type="radio"/> <a href="#">HISPANIC</a>
	<input type="radio"/> <a href="#">WHITE (not of Hispanic Origin)</a>

### Reviewing Applications

Following submission of a completed application, the search committee may immediately begin reviewing the application. Committee members can view documents directly from their browser (no download necessary), attach flags to applicants, and share their comments for other members to see. Certain members of the committee may also submit documentation on behalf of mail-in candidates.

Once the position closes and all applicants have been evaluated, the committee may invite top candidates to their campus for a visit or seminar.

From within Recruit, an analyst can schedule a series of events for the visit, post the schedule in Recruit, then print out flyers and signup-sheets to aid in publicizing the visit or seminar.

During any step, analysts and committee members may download Excel documents containing applicant data, excluding files and reference information. This enables users of Excel to generate mailing address labels, email distribution lists, or summary reports. Closing out a position and notifying applicants of their status may be handled using Recruit's Excel file and mail merge or by sending emails using a BCC'd distribution list.

### **Archiving Documents**

The final step in the recruitment process is to archive all documentation. Information is automatically archived electronically, eliminating the need for large filing cabinet systems built to house UCI's applicant information. This data can be retrieved at a moment's notice via the website in case of a grievance or law suit.

Online application management is only available for tenure or tenure-track faculty positions. Other positions may still use Recruit's online diversity survey component to fulfill UCI's obligation as a federal contractor.

### **Obtaining Help**

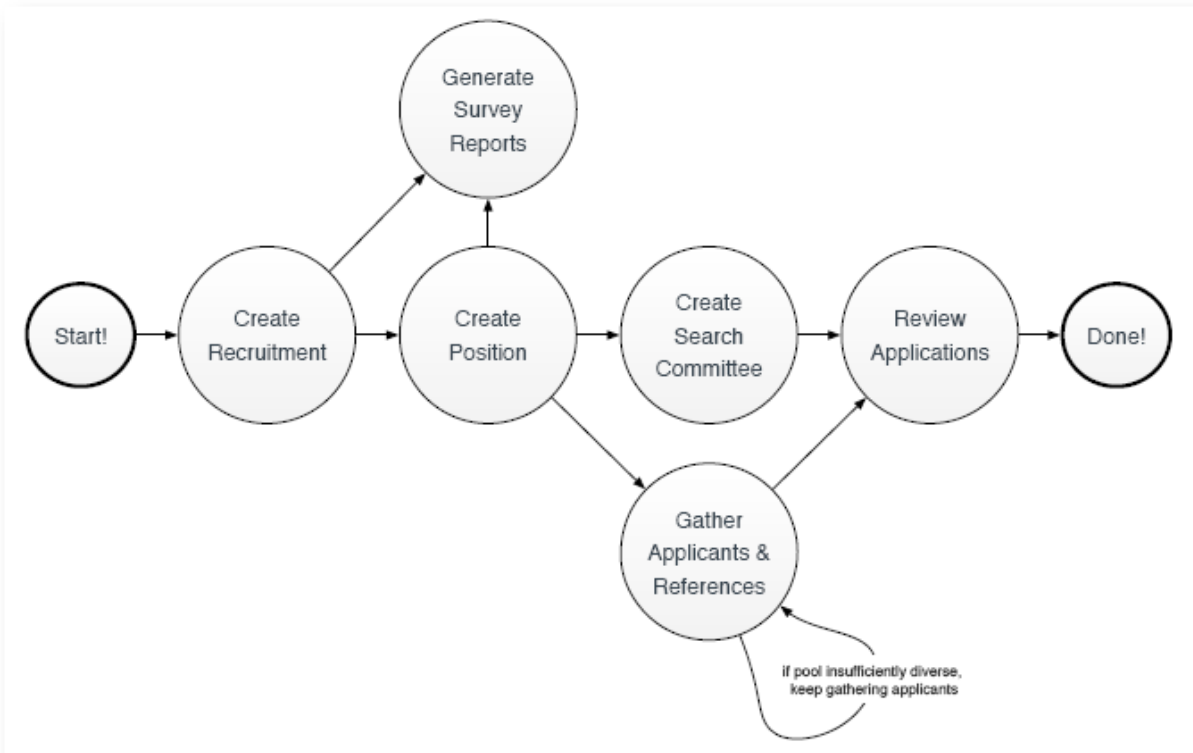
Full step-by-step AP Recruit instructions are available online:

- Analysts & Committees (requires login): <https://recruit.ap.uci.edu/analyst/help/>
- Applicants: <https://recruit.ap.uci.edu/help/applicants/>
- References: <https://recruit.ap.uci.edu/help/reference/>

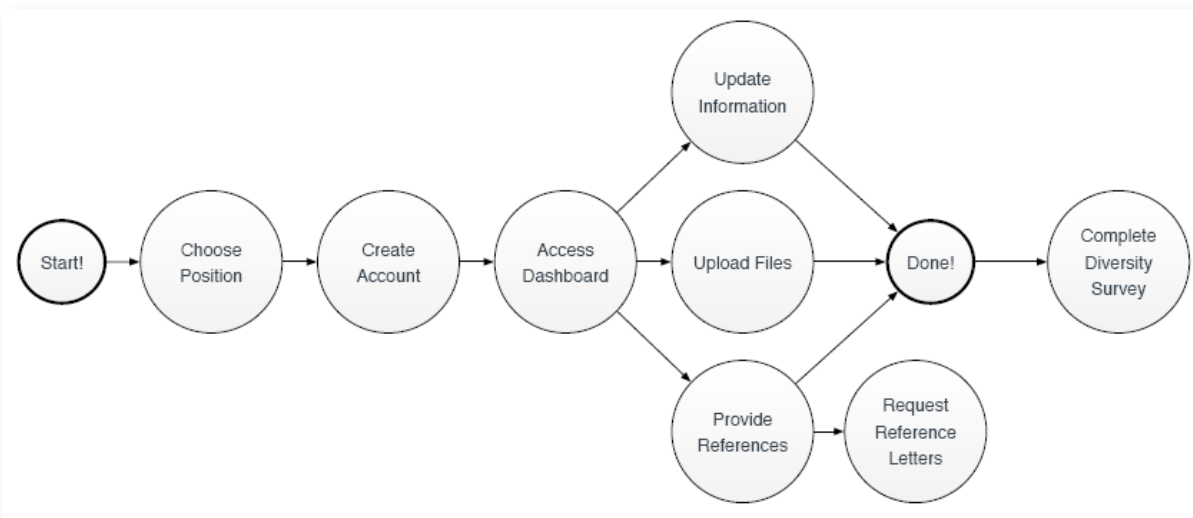
Additionally, AP and NACS staff is available during business hours to provide technical assistance via phone or email. Recruit routes non-technical questions about open positions and search committee inquiries to the AP analyst responsible for the position. NACS provides training sessions as needed to introduce new Recruit analysts to the system.

# Analyst & Applicant Workflow

## Analyst Workflow



## Applicant Workflow



## Technology

Technology used in the online faculty recruitment process includes:

- Programming language: Ruby
- Application development framework: Ruby on Rails
- Database: MySQL
- Operating system: Linux

## Timeline

- November 2005: Recruit 1.0 development
- January 2006: Recruit 1.0 launch
  - Transformed I&CS PHP tool into a campus-wide application.
  - Trained department and school-level analysts.
- June 2007: Recruit 2.0
  - Completed usability redesign.
  - Application rewrite in innovative Ruby on Rails framework.
- August 2008: Recruit + Diversity Surveys
  - Integrated diversity surveys directly into online application process.
  - Enabled non-senate level positions to use diversity surveys.
- Future 2009: Recruit Multi-campus
  - Delivering Recruit software as a service for use at UC San Diego.

## The Future of Recruit: Multi-Campus

Innovation in faculty recruitment does not stop at UCI. UCI, in collaboration with Emily Deere from UCSD Academic Computing & Telecommunications, is actively transforming AP Recruit into multi-campus software as a service (SaaS) for use at UC San Diego. This SaaS model capitalizes on similarities between UC AP business processes, delivering one application that supports multiple campus-branded Recruit sites: hosted, developed, and maintained by UCI.

Implementing online UC processes under the SaaS model uses resources more effectively than sharing code. In this model, source code is maintained by a single campus. UCI will invest resources upfront to transform Recruit to support multiple campuses. Each participating campus receives custom branding, data store, and configuration. Compared to the initial upfront investment, the cost of enabling additional campuses is minimal.

SaaS mitigates or eliminates traditional roadblocks to collaboration, including fragmented code bases, diverging processes, different technical skill sets,

and infrastructure incompatibilities among campuses. Recruit will be hosted and maintained by the group at UCI who has the most experience developing and running the Recruit software. One codebase backed by experts results in a very low barrier to share applications--just import data into Recruit and customize the branding to fit the campus.

This approach to web application sharing promotes a single business processes across UC campuses, improving our ability to deliver future recruitment process innovations. Traditionally, significant changes to a UC recruitment process would involve coordination between a UC-wide body to AP offices, then additional training and coordination between campus AP and staff within academic units. One system with minor cosmetic differences and separate data means a single core process can change and all participating campuses immediately benefit.

## **Contributors**

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