

# University of California at Riverside

## The University of California at Riverside builds an automated space management solution from the ground up - and realizes payback in less than a year.

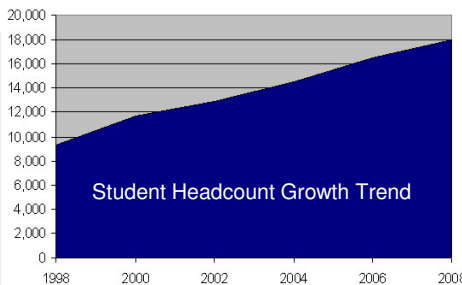
The University of California, Riverside (UCR) is a research university committed to the creation and transmission of knowledge at the highest level, and to the translation of that knowledge for the public good. UCR's comprehensive programs and services, and the vibrant, attractive physical environment are designed to: provide a high quality learning environment for undergraduate and graduate students; advance human knowledge through research and scholarship; enhance the public good through community service and initiatives; and seek preeminence among U.S. research universities.

The 1,200-acre Riverside campus is located approximately 50 miles east of Los Angeles and is virtually equidistant from the desert, the mountains, and the ocean. The campus includes academic settings such as laboratories, libraries, and performing arts studios, as well as housing and recreational facilities. Prominent features of the campus include the 161-foot carillon tower, the Botanic Gardens, and acres of citrus groves.

University enrollment has maintained a steady growth curve over the years and has helped make UC Riverside the second largest employer in Riverside County. However, the accommodation of this steady growth has created challenges for the university to effectively manage their facilities infrastructure.

With increasingly complex reporting requirements for a variety of governing agencies including the State of California and the Federal Government, the university realized that their existing technological tools and processes needed a top-to-bottom makeover. The existing systems included multiple homegrown databases and internally developed applications. In all cases, it was difficult to maintain the data that was used to plan and manage the campus as well as to justify millions of dollars in Facilities & Administration (F&A) indirect cost recovery (ICR) from the Federal Government. This was due mainly to the manual nature of the data maintenance and the fact that CAD drawings were available for only a small percentage of the campus buildings. With these disconnects, the square footages in the existing databases were considered questionable.

At this time, UCR embarked on an initiative to modernize their facilities information systems and perform due diligence to verify existing data. BRG was chosen by UCR to assess process and system requirements, field measure and create as-builts for the majority of the campus facilities, scrub and merge multiple data sources into a new database, as well as implement a state-of-the-art integrated space management software tool – ARCHIBUS/FM.



### The Facts

- Industry: Higher Education
- Over 5.5M square feet of space
- Almost 1M assignable square feet of research space in over 560 buildings
- Over 15,000 undergraduate students
- Almost 2,000 graduate students

### Needs

A consolidated process and system to maintain facilities space information to support a variety of university functions.

### BRG Services Provided

- Consulting services for standards, workflow and process development
- Field measurement and creation of AutoCAD as-builts for over 3M square feet of space
- Customization and implementation of ARCHIBUS/FM CAFM software
- Consolidation of multiple legacy data sources into one centralized database
- Peoplesoft and LDAP integrations
- Automated data export processes for Office of the President (UCOP) Facilities Data System
- Implementation of an Enterprise Facilities Web Portal
- End user training and support

### Technology Solutions

- ARCHIBUS/FM Modules – Space Management; Overlay for AutoCAD
- Custom development of a cross-platform Space Inventory Web Portal

### Benefits

- With the introduction of the system, many key benefits have been realized.
- The campus now has a large verified library of CAD drawings that are proactively maintained.
  - The campus now benefits from a single centralized system of record for space information that is tied to the AutoCAD drawings and a unified process for managing the information.
  - UCR has dramatically increased the accuracy of its departmental allocations data.
  - OMB Circular A-21 and UCOP requirements have been met regarding space accounting practices.
  - Administrative effort to produce Indirect Cost Recovery space surveys will be reduced through the new online process.

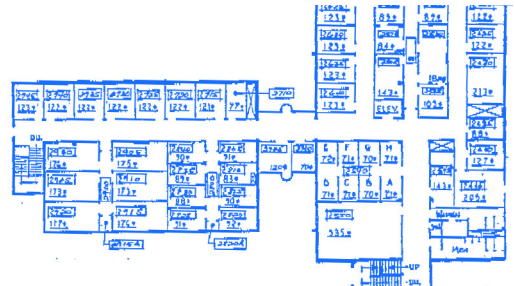
# Business Resource Group

## Technical Details

### Step One – A Foundation Was Built

Despite the fact that AutoCAD was a university standard tool on campus, the University of California at Riverside lacked a major foundational element for best-practice space management – accurate CAD as-builts of their campus facilities. Additionally, what CAD information was in existence was not properly maintained nor dynamically related to the space inventory databases. To remedy this:

- BRG and UCR defined standards and procedures for structuring and maintaining AutoCAD as-builts for campus facilities.
- BRG defined standards and procedures for measurement and field verified over 3 million square feet of space across the campus.
- BRG created accurate as-built drawings and trained users on proper drawing maintenance techniques.

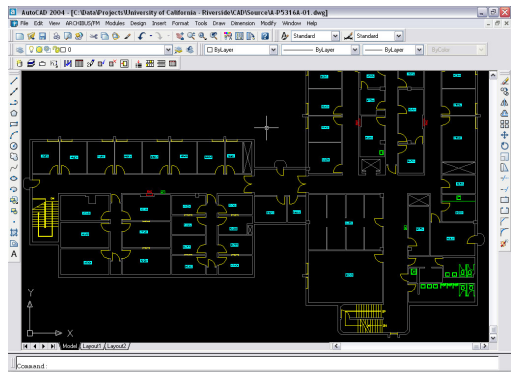


Existing Single-Line Facilities Plans

### Step Two – A Robust CAFM Tool Was Implemented

Historically, UCR had multiple facilities information systems. While some aspects of data management and reporting were addressed with the legacy systems, many major gaps existed that warranted a look at what state-of-the-art CAFM technology could provide. ARCHIBUS/FM was recommended by BRG for the following reasons:

- ARCHIBUS/FM has had a long and successful track record of implementations in the higher education vertical market including many of the top research universities in the country.
- ARCHIBUS/FM was customizable to meet specific needs unique to UCR.
- ARCHIBUS/FM provided the strongest integration between AutoCAD and the standard relational database platforms in the industry. This enabled reuse of all existing data sources with minimal translation.
- ARCHIBUS/FM provides hundreds of out-of-the-box relational reports – coupled with the industry's best ad-hoc reporting tools.
- ARCHIBUS/FM could be implemented in a very short timeframe.

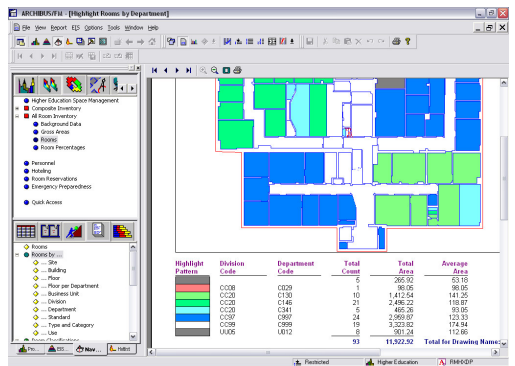


Verified AutoCAD Facilities Plans

### Step Three – A Modernized Workflow Process Was Rolled Out

The space inventory process has been automated to allow entitled stakeholders self-service access to critical data via an Intranet Web Portal. The key components of the portal give users access to management reports as well as a customized space inventory application developed by BRG.

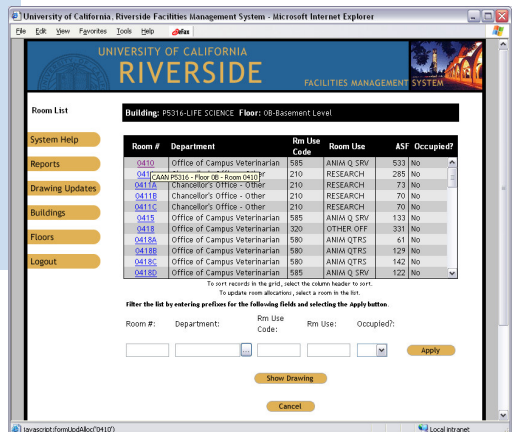
- Residing on top of the ARCHIBUS/FM CAFM system foundation, the portal streamlines and governs (through defined business rules) the collection of space survey data from 300+ users in the various organizations across the campus.
- Based on permissions, users can access or update data. The cross-platform solution incorporates a drill down method to access data and allows viewing of CAD drawings for available floor plans.



Integrated CAFM Solution – ARCHIBUS/FM

### Step Four – Realize the Benefits

The greatest benefit has been a significant reduction in the time and effort required to access accurate space data. Users now update data to a central location and can produce reports quickly, in a variety of formats, to meet the needs of all levels of campus users, the Office of the President, and outside agencies.



Web Browser-Based Space Inventory Portal

