

## **Graduate Admissions Workflow with Digital Imaging**

**Kathy Gates**

**Assistant Vice Chancellor for Information Technology**

**University of Mississippi**

**Christopher Provence**

**Systems Analyst II**

**University of Mississippi**

**Jie Tang**

**Systems Analyst III**

**University of Mississippi**

## **Abstract**

*Over the last year, the University of Mississippi (UM) Office of Information Technology and the Graduate School have worked collaboratively to transform the graduate application process by means of electronic workflow and digital imaging. Applicants apply online and pay a processing fee with real-time credit card authorization. When an applicant presses submit, a workflow is started, and the application is routed electronically through the various offices that participate in the admissions decision. This process is more complicated for graduate admissions due to the fact that each admissions application must be routed to one of forty-five different academic departments based on the applicant's desired program of study. Before the implementation of a digital imaging system, the paper documents that supported the application such as transcripts and letters were copied and routed through campus mail. In the new process, a graduate school employee scans these documents, and they are automatically added to the digital imaging system and associated with the student in SAP. These documents, and related applicant information such as contact information and test scores, are immediately available through a protected Web interface to graduate program coordinators who make recommendations online. These enhancements have resulted in more timely, consistent and effective admissions processing for applicants, yielding a state-of-the-art "best practice" in graduate admissions.*

## **Introduction of the Organization**

The University of Mississippi (UM), chartered by the Mississippi Legislature in 1844 and affectionately known as “Ole Miss,” is located in the rolling hills of north Mississippi about 80 miles south of Memphis, Tennessee. Today, total enrollment at UM’s three campuses (Oxford, Tupelo, and Southaven) and the UM Medical Center (Jackson) exceeds 17,000. UM is in a unique position in that it served as the North American pilot for the implementation of SAP’s student system known as Campus Management. UM’s Campus Management implementation was completed in spring 2003. The project described here began in summer 2004 with the procurement of a digital imaging system and was fully implemented by October 2005.

## **Statement of the Problem/Initiative**

In the original implementation of Campus Management at UM, admissions applications were converted to Web forms, and the processing of applications was handled by means of electronic workflow; however, the step in which academic departments reviewed graduate applications was still handled by means of a paper-based process due to the lack of a campus-wide digital imaging system. The applicant submitted an application via a Web form and paid an application fee online. This resulted in the initiation of a workflow that routed the application through centralized offices such as the Graduate School and International programs; however, when the processing reached the step in which academic departments needed to review an application and make a recommendation, Graduate School personnel would print out the application materials and send them via campus mail to the appropriate academic

department. The graduate faculty in the academic department would review the materials, and then the graduate program coordinator would contact the Graduate School to make a recommendation. At this point, electronic processing would start again with the remaining steps being handled in an automated way.

The problems with this approach are readily apparent. There was a time delay in getting the application materials to academic departments, sometimes materials would be misplaced, and occasionally there were communication errors as graduate program coordinators made recommendations back to the Graduate School. Clearly, this approach hindered the graduate admissions process and put UM at a disadvantage in recruiting highly qualified candidates.

## **Design**

In summer 2004, UM began the procurement process to acquire a campus-wide digital imaging system. Mobius was selected as the vendor based on product features and its status as a SAP partner. Specifically, Mobius provided an interface with SAP so that as documents were scanned, they could be linked in real-time to business objects in SAP, thereby capitalizing on the SAP investment made in previous years. Three pilot projects were selected: Graduate Admissions (described here), Financial Aid, and Institutional Research. Of these three, the Graduate Admissions project had the broadest impact in that all academic departments that offered graduate degrees would participate and benefit.

The Office of Information Technology worked closely with Associate Provost and Graduate School Dean, Dr. Maurice Eftink, to define requirements for the new and improved admissions workflow.

The design included the following features:

- All users have the same view of the information. As soon as an applicant presses “Submit,” a workflow is initiated, and a notification is placed in the INBOX of a graduate admissions clerk. The graduate coordinator can sign in to a Web interface and view all applications for his or her area. All authorized individuals see the same information as soon as it becomes available in the system.
- When an applicant provides educational background information on the admissions application, a transcript “shell” is entered in Campus Management and is marked as pending. This information is then used to provide data entry support at future scanning steps, i.e., the graduate school clerk will be prompted with the institution information for the anticipated transcripts.
- Applicants can view the status of an admission application, including a listing of missing documents, through a Web interface.
- When transcript arrives, a graduate school clerk scans it, and it is immediately available to the graduate program coordinator via his Web interface.
- Graduate program coordinators can generate Excel spreadsheets that summarize applicant data and that contain hyperlinks to the scanned documents. Security is in place to limit access to allow only graduate faculty in the academic department to which the candidate is applying. This is helpful in settings in which faculty committees must make a collective decision on applications.
- The graduate program coordinator can make a recommendation online, which is routed to the Graduate School immediately for subsequent processing. The recommendation form is streamlined to include standard responses for fast and

consistent data entry, but also allows the graduate program coordinator to communicate special requirements to the Graduate School.

- A work log is kept so that one can always find out the status of an application.

## **Implementation**

The key systems involved in the implementation are SAP's Campus Management system, Mobius' digital imaging system, and a Web application server. University employees performed the Mobius configuration, used SAP workflow to develop the admissions applications routing process, and also developed the Web interfaces that allow graduate program coordinators to view and act on application materials. The underlying technologies include Java servlets, JSPs, Java Beans, and SAP's Java Connector product plus development tools that are available as part of SAP and Mobius product offerings. Jakarta POI, a Java API to Access Microsoft Format Files, is used to generate the Excel spreadsheet listings.

## **Benefits**

This project has been live since October 2005. So far, almost 3,000 recommendations have been processed using the new interface for graduate program coordinators. Over 3,600 transcripts have been scanned by the Graduate School. In the previous process, these steps would have been performed in a completely manual way, but now a seamless electronic workflow supports the end-to-end processing of graduate applications for admission. These enhancements have resulted in more timely, consistent, and effective admissions processing for applicants, yielding a state-of-the-art "best practice" in graduate admissions.