BEDEWORK & LARGE VENUE TICKETING

Thursday, September 18, 2008

SUMMARY

A ticketing system for opening events of Rensselaer's Experimental Media and Performing Arts Center was developed using Bedework as the central component. The system allows users to register, request tickets, and build an event agenda. Superusers can download event registrations, update tickets for any user on any event, and place tickets on hold. Event data is exported for outboard reporting, analyses and ticket printing.

This approach exploits the calendar as the application platform - all event information is stored in Bedework, and incorporated into the registration system, the EMPAC Opening website, and a calendaring site for mobile (handheld) devices.

THE BACKSTORY

EMPAC – THE BUILDING

A single structure incorporating four distinct and specialized venues under one roof, EMPAC includes an acoustically optimized 1,200-seat concert hall for musical performances and ceremonies, a 400-seat theater, and two unique studios, measuring 3,500 and 2,500 square feet respectively, created for flexible uses by artists or researchers.

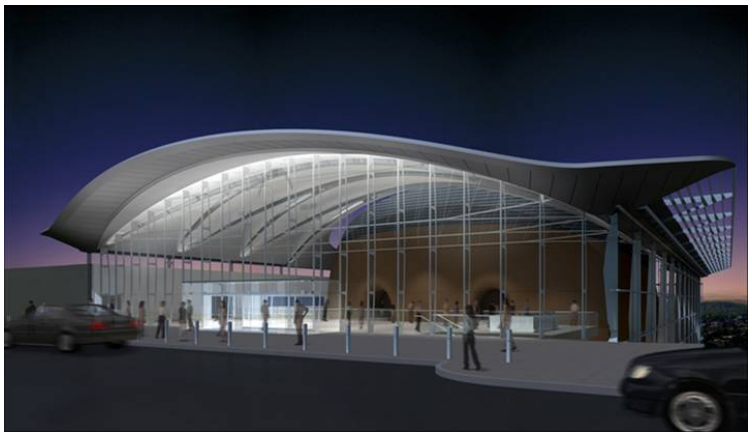
Rensselaer held an architectural competition in 2001, which led to the engagement of the international architectural firm Grimshaw as the design architects and Davis, Brody, Bond of New York as architects of record.

The concert hall, a world-class venue for orchestras, is equally capable of accommodating presentations with electronically generated sound and video projection.

The theater's 40-foot by 80-foot stage and 70-foot flytower promise to meet the best standards of professional performing arts companies while providing a very rare facility for experimental artists. The framing of the side galleries of this venue allows projection screens and loudspeakers to be attached to create an immersive virtual environment for performers, audience members, or

researchers working in the space. By lowering the fire curtain, the stage alone may be used as a large lab in which any object, even of great weight, can be flown in the 3-D space under computer control.

Studios one and two are suited for music and dance presentations, respectively, but also are optimized for scientific visualization, animation, immersive video projection, free space optics, and acoustical and architectural studies, among many other capabilities.



In addition to the four large performance spaces, the building includes a 1,500-square-foot rehearsal studio, four studios for artists in residence, suites for audio and video production, a major research suite, plus an atrium lobby and cafe. Each of the large spaces is acoustically isolated and capable of diverse video and audio production. The building is linked to the Rensselaer Computational Center for Nanotechnology Innovations (CCNI) as well as to the studios of WMHT-TV, the Capital Region's public television station based in the Rensselaer Technology Park in North Greenbush.

EMPAC – THE PROGRAM

While a wholly new facility and program, EMPAC builds on the traditional strengths of Rensselaer, says Rensselaer President Shirley Ann Jackson. "We have taken the distinctive heritage of the Institute as a scientific, engineering, and technological university, and have created a place where scientists come together with artists for research and education at the nexus of the arts, the sciences, and technology in a venue of unparalleled quality."

EMPAC was designed to serve as a platform for pioneering discovery in the arts and sciences, and as a home to an emerging, collaborative community of artists, engineers, scientists, and designers.

"When paired with the CCNI supercomputer, EMPAC will enable human-scale interactive exploration of immersive/sensory environments," stated John Kolb, vice president for information services and technology and CIO. "This will allow broad exploration in fields such as dynamic investigation of fluid dynamics, artificial intelligence, free-space optics, molecular design, financial modeling, nanotechnology, gaming, and more."

"With EMPAC our aim is to create an intellectual community that did not before exist, and a cultural change at Rensselaer that will reverberate globally," says President Jackson. With capabilities in visualization, animation, simulation, acoustics, haptics, optics, and more, EMPAC also will be a rich environment for student research and learning.

Making the recommendations about what performance pieces get produced—as well as what artists are invited for long-term creative residencies in the building—is a team of three curators, part of EMPAC's current 24-member staff. Until recently "curator" was a term primarily used in the museum

realm, referring to specialists who keep abreast of trends in the field, make programmatic decisions, and supervise the production and installation of shows.

The three EMPAC curators are focused on music, dance, and visual art, respectively, but they each take such broad views that their individual terrains are never sharply defined.

Remembering that the "E" in EMPAC is for experimental, the curator's decisions aren't based just on who's plugged into the latest gadgets. "I've come to believe that 'technology' is one of the most dangerous euphemisms of our times," says music curator Micah Silver. "So what if an artist uses a laptop? That's superficial. EMPAC is about people choosing to go their own way, to create their own language. I look for some new way to experience sound that makes the world bigger and broader."

EMPAC – THE TICKETING SYSTEM PROJECT

The process to identify a ticketing system for Rensselaer recognized that in the long run, a large venue system such as Tessitura Arts Enterprise Software might be appropriate, but for the grand opening events, an ASP or SaaS solution would be adequate. The grand opening events, just over fifty in number, span the first three weekends in October, and consist largely of exhibits, symposia, performances, and other, special events, such as a presidential colloquy.

As contractual issues delayed providing the preferred ASP/SaaS ticketing solution, the EMPAC technical staff reached out to the Communications & Collaboration technologies group (CMT) to discuss writing the necessary software in-house, albeit on an extremely accelerated and tight schedule.

There was no fee or cost associated with any of the 54 EMPAC opening events. The lead developers for the Bedework Enterprise Calendaring System are members of CMT, and another member of the group had previously developed a registration system in Ruby-on-Rails. The group believed that perhaps developing some additional code to tie together the Ruby-based registration system with Bedework might allow them to deliver the necessary functionality within the very tight time constraints.

An initial meeting between the technical staffs of EMPAC and CMT hammered out a collaborative approach (as well as some rudimentary specifications):

1. EMPAC staff would producing the web pages,
2. which would rely on the "backend" technology produced by CMT,
3. both of which would draw event data from Bedework,
4. which would also be used to generate a site for smart phones and mobile devices

Shortly thereafter, the ASP contractual issues were resolved, but both staffs felt it was too late in the process to "change horses", as it were.

Almost immediately, it was decided to abandon the Ruby-based approach and to start from scratch, developing in the Spring Application Framework which was already familiar to most of the CMT team.

The system went live almost exactly 3 weeks after the initial, exploratory meeting, with almost all testing being done "on the fly". The system has been redeployed a few times to accommodate minor changes and bug fixes. With about two weeks to go prior to the first event, more than 650 users have registered and reserved event tickets.

Project Components

The project is comprised of the following components:

1. An EMPAC Opening web site from which users can browse and view events and request tickets.
2. A registration system for managing users and ticket requests.
3. A calendaring system (Bedework) from which to pull event information.

Project Overview

By storing event data in Bedework, only one authoritative source of event information needs to be maintained. In return, event data is made available to other systems that need it, such as the campus calendar suites, digital signage and cable TV, the EMPAC Opening and mobile websites, the ticketing system, RSS feeds, and others.

Event data is provided to the static EMPAC Opening website via JSON feeds and to the ticketing system via XML feeds. All feeds are produced in real time.

Figure 1 shows how the components work together:

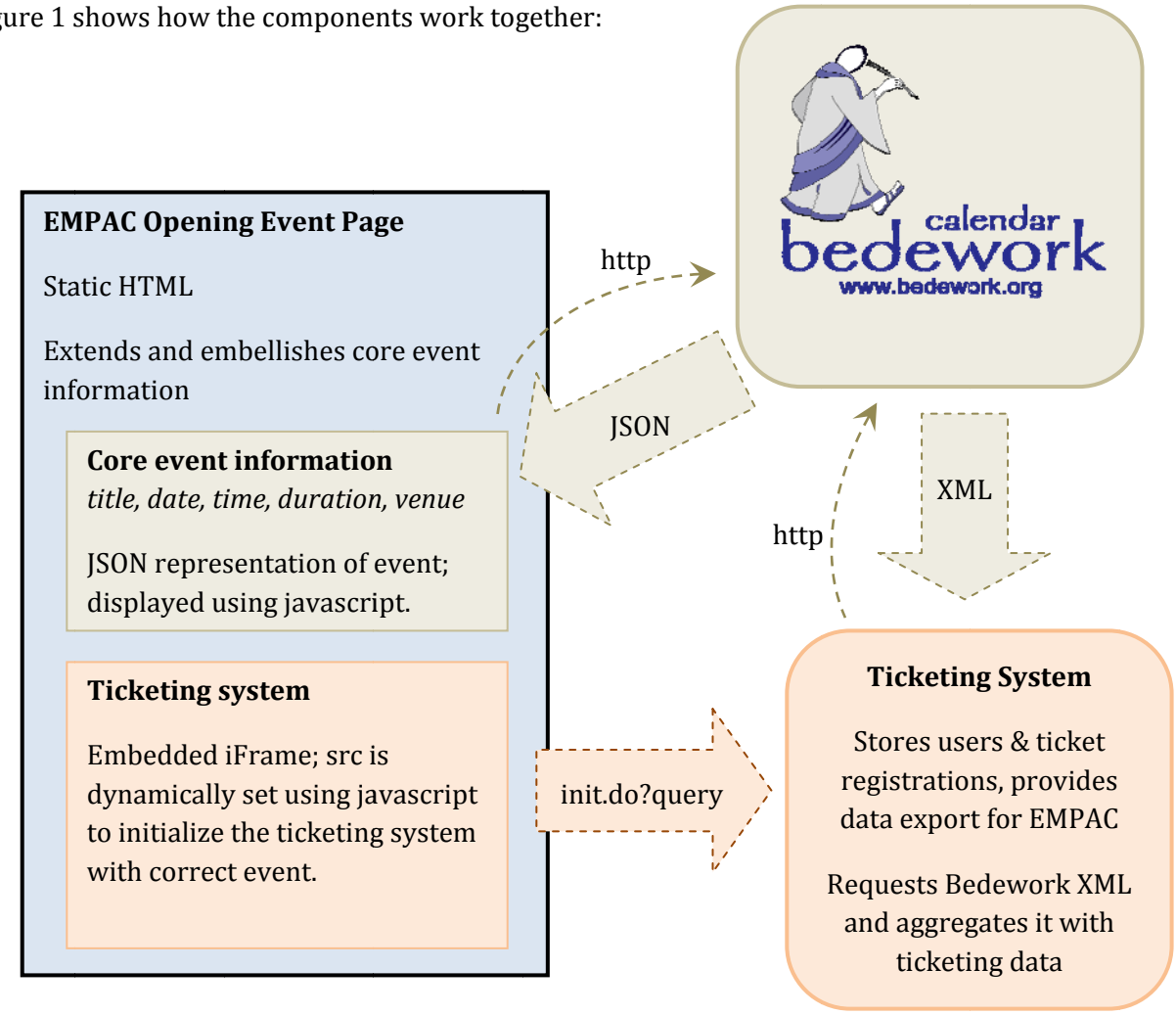


Figure 1 – Ticket system components