A Bedework Overview: Past, Present, and Future

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Rensselaer Polytechnic Institute
March 8, 2010
Who We Are

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Communications & Middleware Technologies
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Tell ‘em what you’re gonna tell ‘em

- Bedework background
- Bedework the product
- Bedework the project
- Q&A
Bedework Background
They Say It’s Your Birthday

• March 2010 marks the 4th anniversary of Bedework 3.0, the first Bedework release.
Who’s Using Bedework?

- **In production**
  - Bennington College (US)
  - Bishop's University (Canada)
  - Brown University (US)
  - Cornell University (US)
  - Cornerstone University (US)
  - Dalhousie University (Canada)
  - Duke University (US)
  - Illinois State University (US)
  - Jahia Software (Switzerland)
  - Juilliard (US)
  - Montana State University (US)
  - Public University of Navarra (Spain)
  - Queens University (Canada)
  - Rensselaer Polytechnic Institute (US)
  - University of British Columbia (Canada)

- **In production**
  - University of Chicago (US)
  - University of Kansas (US)
  - University of Maine, Fort Kent (US)
  - University of Maryland, College Park (US)
  - University of North Carolina at Chapel Hill (US)
  - University of Washington (US)
  - Yale University (US)

- Many more, both commercial and educational in both production and development
What Is Bedework?

• Bedework is a standards-compliant, open source, comprehensive calendaring and events system.
• A “Total Calendaring System” must meet all the following needs and more:
  – personal / group / public events calendaring
  – interoperable calendaring
  – shared calendars
  – scheduling
  – events publication / event submission
  – subscriptions / event pool
  – multi-language support / internationalization
  – structured venues / contacts, sponsors / etc.
  – much, much, more ...

• Priorities driven by standards requirements & user feedback
A Calendar System for Higher Ed

• Low “buy-in” cost
  – Integrates with extant campus directories
  – Integrates with extant campus authentication
  – No license or usage fees
  – Works with a number of database systems
  – Distributed administration
  – Easily skinned
Interoperability is a core value!

- Bedework’s preoccupation with standards and interoperability is in large part recognition that in many organizations, Bedework is unlikely to be the only calendaring product in an enterprise.

- The ability to share and exchange data with other calendaring products and environments is an important key to Bedework’s future well-being as a product and a project.
Like the Beatles said

• And, in the end, the love you take
  Is equal to the love you make

• Active participation in CalConnect
  – Chair FREEBUSY Technical Committee
  – Chair Timezone Technical Committee
  – iSchedule, CalDAV Technical Committees
  – Publicity Committee
  – Steering Committee
  – Board of Directors
CalConnect

- CalConnect - The Calendaring and Scheduling Consortium: http://www.calconnect.org

- “The Consortium is focused on the interoperable exchange of calendaring and scheduling information between dissimilar programs, platforms, and technologies.”

- Membership consists of industry leaders and a large number of universities
  - http://www.calconnect.org/mbrlist.shtml

- Interoperability testing!
Bedework Vision

- Enlightened self interest
  - Deliver value locally – but develop for global community
  - Make Bedework attractive enough to other universities that they adopt the software and contribute to its development.

- Make Bedework the leading open source Java-based calendar in higher education
  - Continue to grow the user community
  - Continue to grow the contributor community

- Standards compliance is key to Bedework’s success, present and future
Bedework the Product
New in Bedework 3.6

• Public Calendaring:
  – New default public theme
  – Feed builder and web caching
  – Improved, refactored theming

• Stronger internationalization

• Improved CalDAV performance

• Core Bedework packaged in JBoss

• System notifications over JMS

• Emphasis on ease of installation
Bedework Calendar System

- User Calendar
- CalAdmin
- Feeder
- CalDAV
- Public CalSuite
- Submissions
- Indexer
- Monitor
- Sys Events Log
- ActiveMQ
- Dump/Restore
- Group Scheduling
- JBoss
- JMS
- other J2EE, e.g. JNDI, JavaMail, etc.
- Tomcat
- JDBI
- JMX
- JMX-Console

HTTP

Web Cache

URL Builder

Tomcat2
New Public Theme

- Based on Duke/Yale skin (and influenced by Chicago)
- Fully refactored
- Easily customized
### Week of March 7, 2010

#### Sunday, March 7, 2010

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00 AM-12:15 PM</td>
<td>Sunday at Rockefeller</td>
</tr>
<tr>
<td>12:15 PM-1:15 PM</td>
<td>Rockefeller Tower Tour and Carillon Recital</td>
</tr>
<tr>
<td>1:00 PM-2:26 PM</td>
<td>Doc Films: Paranormal Activity</td>
</tr>
<tr>
<td>2:00 PM-3:00 PM</td>
<td>Lecture: Louis Kaplan: &quot;The Strange Case of William Mumler, Spirit Photographer&quot;</td>
</tr>
<tr>
<td>2:00 PM-4:00 PM</td>
<td>CONCERT: Passport To Jazz With Reginaid Robinson</td>
</tr>
<tr>
<td>2:00 PM-4:00 PM</td>
<td>The Strange Case of William Mumler, Spirit Photographer</td>
</tr>
<tr>
<td>3:15 PM-5:25 PM</td>
<td>Doc Films: New Moon</td>
</tr>
<tr>
<td>5:00 PM-5:00 PM</td>
<td>Canto Sacra: Sacred Vocal Music of the 17th and 18th Centuries</td>
</tr>
<tr>
<td>7:00 PM-8:52 PM</td>
<td>Doc Films: Jet Pilot</td>
</tr>
</tbody>
</table>

#### Monday, March 8, 2010

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:30 AM-12:30 PM</td>
<td>Rockefeller Tower Tour and Carillon Recital</td>
</tr>
<tr>
<td>12:00 PM-1:00 PM</td>
<td>Biophysical Discussions: Pencho Buzanilla and Norbert Scherer</td>
</tr>
<tr>
<td>12:00 PM-1:00 PM</td>
<td>Wellness Committee Meeting #6</td>
</tr>
<tr>
<td>1:00 PM-2:00 PM</td>
<td>Cardiology Lecture</td>
</tr>
<tr>
<td>2:00 PM-3:00 PM</td>
<td>Chalk Quick Review</td>
</tr>
<tr>
<td>2:00 PM-4:00 PM</td>
<td>Chemical Hygiene Plan-Laboratory Safety</td>
</tr>
<tr>
<td>2:30 PM-4:00 PM</td>
<td>Biological Translational Research Workshop (BTRW) - Sam</td>
</tr>
</tbody>
</table>
March 8, 2010

Olive Branch: 25 Years in the Life of Mark Fisher & Cedric Chatterley

Duke Reads Online Book Club

Duke Reads Online Book Club

The Past is a Distant Colony: Hong-An Truong

Exhibition

Until March 21, 2010

John Hope Franklin Center
New Media Space

Monday, March 8, 2010

Anne Fior Scott Research Awards
Location: None

8:00 am - 9:00 pm
	Fall 2010 House Course Applications Due March 15th
Location: Allen 1103

10:00 am - 11:00 am
	Morning Meditation
Location: Duke Chapel Crypt

11:40 am - 12:55 pm
	Financial Econometrics Lunch Group
Location: Perkins Library, The Link Classroom 5

11:45 am - 1 pm
	ECF Seminar: Keith A. Bowman, Ph.D., Staff Research Scientist, Intel Corporation
Location: Hudson Hall 125

11:45 am - 1 pm
	ECF Seminar: Keith A. Bowman, Ph.D., Staff Research Scientist, Intel Corporation

Ongoing

Lines of Attack" exhibition at the Nasher Museum, Ends 5/16/10 5:00 PM [more]

"Olive Branch: Twenty-Five Years in the Life of Mark Fisher and Cedric Chatterley" and "Recency: Cedric Chatterley's Handmade Cameras", Ends 5/21/10 5:00 PM [more]

Duke Center for Science Education presents the "2010 Student Impact Awards", Ends 5/17/10 11:00 AM [more]

"Something More Out of Life" exhibit, Ends 5/31/10 7:00 PM [more]

Conscience of a Nation: John Hope Franklin on African American History, Ends 3/31/10 12:00 AM [more]

Cedric Chatterley: Photographs of Honeyboy Edwards, 1891-1990, Ends 3/20/10 12:00 AM [more]
Yale Calendar of Events

Monday, March 8, 2010

- The Book Remembers Everything: The Work of Erica Van Horn
  Location: Beinecke Rare Book and Manuscript Library (BRBL)
  Tags: arts, exhibition, humanities

- "Elements of Style: Fashion and Form at the Beinecke"
  Location: Beinecke Rare Book and Manuscript Library (BRBL)
  Tags: arts, exhibition, humanities

- "Jane Davis Doggett: Talking Graphics"
  Location: Yale University Art Gallery (YUAG)
  Tags: arts, exhibition

- "Eero Saarinen: Shaping the Future"
  Location: Yale University Art Gallery (YUAG)
  Tags: architecture, arts, exhibition
Bedework 3.6

Calendar Views

Academic Calendar
All
Alumni Events
Arts
Athletics
Clubs and Organizations
Conferences and Meetings
Lectures and Seminars
Other Events
Services and Facilities
Social Events
Special Events
Training

FILTER ON CALENDARS:
View All Calendars

Public Calendar
Personal Calendar | University Home | Other Link

Advanced Search

Day: February 28, 2010

Sunday, February 28, 2010

4:00 PM - 5:00 PM  Test DSUB Concert
Location: my location
Topical Areas: DirectSub

Tuesday, March 2, 2010

8:30 PM - 9:30 PM  Student Life Committee of the Student Senate
Location: Student Government Suite (Union 3120)

Saturday, March 6, 2010

10:00 PM - 11:00 PM  Test DSUB Concert
Location: my location
Topical Areas: DirectSub, Concerts

10:00 PM - 11:00 PM  DSUB - didn't click the concert TA
Location: my location
Topical Areas: DirectSub
Feed Url and Widget Builder

Bedework Feed URL and Widget Builder

Raw event feed or an embeddable widget?
- Feed
- Widget

Data format?
- RSS
- JSON
- ICS (iCalendar)
- XML

Specify the number of days (from the current date) or provide a start date and an end date.
- Number of Days: [ ]
- Start Date: [ ] End Date: [ ]

Include everything or only those events from selected categories (Lectures, Arts Events, etc.)?
- Include everything
- Include selected categories only

Exclude nothing from what you've selected above or exclude some categories?
- Nothing to exclude
- Exclude selected categories

Limit to a specific organization?
- No limit
- Limit to an organization

Your URL: [http://j2ee4.server.rpi.edu:9080/webcache/v1.0/rssDays/?list-rms=ns--filter.rms](http://j2ee4.server.rpi.edu:9080/webcache/v1.0/rssDays/?list-rms=ns--filter.rms)
Bedework Event Pool

Public Events: Getting Data Out

Public Events

Single Calendar Model
Very little calendar hierarchy

Data Feeds
ical, rss, json, raw xml

Calendar Suites
public event web sites

Common Filters
Category (tags)
Group (creator)
Bedework Event Pool

Public Events: Getting Data In

Public Events

Public Events Administration

Public Events Submission

hidden calendar

approval
Bedework Personal Calendaring

Public Events

- event reference
- full read access

Personal & Group Events

- freebusy only
- read/write access

www

clients:
- desktop
- web
Bedework (the product) Futures
The University of California, Berkeley and Rensselaer will be collaborating on enhancements to the Bedework personal calendaring client, for deployment at UC Berkeley in late 2010.

- Support for scheduling and managing resources
- Managing groups and group invitations
- Improvements to the web client UI for Free/Busy
- Improved UI and platform support for integrating external iCal/CalDAV Feeds, especially Google calendar
Further Futures

• Greatly simplifying administration
• Packaging
• Hosted/cloud Bedework, ala Shel Waggoner ("above campus services").
  – Hosted Bedework may very well be the future of Bedework
• Even stronger internationalization
• Bedework the calendaring platform...
W2C

- Federated/cloud/aggregation
- Workflow, Authentication, Discovery
- Social networking
- Semantic Web
- Handheld/mobile
- Massive scalability
- Pervasive internationalization/localization
- Event aggregators / harvesters
Calendaring as a Platform

- Start with calendar data and server/store API
- Can support traditional calendar clients
- Enable consumer calendar data (e.g. web portal widgets)
- Different protocol stacks on top provide flexibility and interoperability between calendar applications
- Extensible calendar services and APIs
Another view
For example - Sakai

• GT/Sakai/CalDAV
  – Opens Sakai’s native calendaring capability to external CalDAV-based calendaring systems, such as Zimbra or Bedework
  – Groundbreaking in what it attempts to accomplish and what it suggests
    • We should all program within our core competencies, and augment with software produced by those with other competencies
For example - Jiscmail

- JISCMAil @ Rutherford Appleton Labs
  - Science & Technology Facilities Council
  - National Academic Mailing List Service

- Integrating calendaring with massive mailing list service
For example – Historical data

• Calendaring as research interface into historical collections
  – Google maps has shown new perspectives are realized when you look at information from a geographical standpoint
  – A calendar view of a research collection might offer another new view
  – Dimension of date could reveal connections in time missed in more traditional approaches
  – Analogous to Tufte: *The Visual Display of Quantitative Information*

• 15 miles (or more) on the Erie Canal
“I dream of things that never were, and ask why not?”

- Bedework and Sakai
- Bedework and Foodle
- Bedework and phpScheduleIt
- Agenda builders
- Office hours
- Building hours
- Bedework and conference registration
- Bedework and ???
Bedework the Project
Bedework is Becoming a Jasig Project

- Bedework has broader appeal as a foundation-based project.
- The Bedework community has outgrown RPI's stewardship.
- Jasig's relationship with solutions providers increases the likelihood of commercial support.
- Jasig's relationship with other OSS foundations increases the likelihood of collaborations.
- Bedework is more sustainable as a Jasig project.
- Because, it’s time to take this step.
Bedework Steering Committee

• **Developers:**
  – Mike Douglass – RPI
  – Arlen Johnson – RPI
  – Eric Wittman - Yale University

• **Stakeholders:**
  – Steve Carmody - Brown University
  – Deb Johnson - Duke University
  – Mimi Mugler - UC-Berkeley
  – Juan Cruz Ruiz de Gauna - Public University of Navarra

• **Jasig Board Liaison:**
  – Gary Schwartz – RPI

• **Jasig Executive Director (ex officio):**
  – Jonathan Markow
Jasig sponsorship for Bedework will allow us to meet the requirement that we set forth almost six years ago when we joined the UW Calendar project, to make a lasting contribution to open source and higher education.
Broad Project Participation

- packaging people,
- doc people,
- installation people,
- mailing list support people,
- CRM people, etc...

The Bedework project cannot be a great project with only developers, no matter how dynamite the developers.
Collaboration and Support

• Broad collaboration with projects inside and outside of Jasig

• Collaboration with the IDM space/projects – Shib, CAS, etc

• Commercial support both large and small
• Bedework is really coming into its own - thanks to the increasing number of adopters, the increasing number of people who want to get involved, and Jasig sponsorship. It has been a great ride, but truly the best is yet to come.
Bedework: Open Source Calendar System for the Enterprise

Bedework is an open-source, enterprise calendar system designed to conform to current calendar standards. Made for higher education and built in Java, Bedework has a centralized server architecture allowing immediate update of public and personal calendaring information.

News & Updates

- **Bedework 3.5 release now available**
  July 17, 2006: We are pleased to announce the release of Bedework 3.5. This release includes optimizations for a calendar pool public event model, improved subscriptions, improved personal client, an CalDAV server, a Timezone server, support for draft 7 of CalDAV scheduling, and ships with improved V2 calendar directory.

- **New CalDav/Fiscal site now available**
  A new website for the CalDAV Fiscal Protocol has been established at http://calendar.csd.umn.edu. CalDAV is a calendar and scheduling client/server protocol designed to allow users to access calendar data on a server, and to schedule meetings with other users on that server or other servers. The CalDAV Access protocol has been standardized by the IETF and published as RFC 3445.

- **Bedework & Large Venue Ticketing (LVT)**
  Bedework was recently used as the central component in a ticketing system for Rensselaer's Experimental Media and Performing Arts Center, exploiting the calendaring as an application platform.

- **Bedework 3.4.1.1 Released**
  June 3, 2008: We are pleased to announce the release of Bedework 3.4.1.1. See our recent changes for details.

- **Bedework Visits Europe**
  In November 2007, members of the Bedework team along with Dave Theede, the Executive Director of CalConnect, traveled to England, Germany, Sweden and Spain to meet with European developers.

- **Bedework at 11**
  Reflections on Bedework's one year anniversary.

- **IETF publishes CalDAV Proposed Standard - RFC 4791 (PROD)**
  CalDAV has moved from draft to RFC. CalConnect, the calendaring and scheduling consortium - of which the Bedework developers are members, has released the latest release (RFC) leading the development.

- **Bedework Receives Mellon Foundation MACTO Award**
  Bedework was among the 10 initial recipients of The Andrew W. Mellon Foundation's Technology Collaborative (MACTO) award for leadership in the collaborative development of open source software tools with particular applications in higher education and not-for-profit activities.

Bedework is maintained under a "SSO-ship" open source license.