Bedework 3.0

an institute-wide open source Java calendar system

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Who We Are

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Overview of Bedework

Recent progress

Demonstration

Future plans
An institutional calendar could provide:

- Events publishing
- Personal calendaring
- Group calendaring
- Resource scheduling

Bedework is
- a comprehensive calendaring and events system
- open source
- Java (hence platform independent)
- modular, extensible, and easily integrated with other systems
- intended for higher education
- and...
STANDARDS COMPLIANT

- iCal : RFC 2445
  http://www.ietf.org/rfc/rfc2445.txt
- CalDAV draft version 06
  http://ietf.webdav.org/caldav
- Why? ...interoperability!

Interoperability

- Calendaring could be like email
- Aggregation at client and server
- Exchange? Oracle?
  - All or nothing vs. modularity
  - Change from one system to another?
- CalConnect
  - Oracle, IBM, Mozilla, Yahoo, & Novell among others; approx. 10 universities
What's in a name?

- Why Bedework?
  - Bedework is based on UWCalendar 2.3
  - Needed a name not derived from a specific institution
  - All word play on “cal” is exhausted (from clever, banal, to ugly: “cal” names are all in use)
  - So, we turned to calendar history...

- Bedework:
  - named after the Venerable Bede (AD 673-735)
  - monk & highly influential scholar
  - in 725 AD wrote treatise: *On the Reckoning of Time*

  - and a Google search of Bedework, for now, returns only references to this project!
• Four main components:
  • public client
  • personal client
  • administrative client
  • CalDAV

• Features:
  – Distributed, fine grained administration
    • Administrative groups
    • Location and contacts management
  – Access control & sharing
  – Stand-alone & portlet implementations
  – True synchronization
  – Highly customizable look and feel
  – Deliver to any platform, device, or media
Core Technologies

- Java / J2EE
- XML, XSLT
- Hibernate

Again, supporting JSR-168 and CalDAV

Architecture
Bedework Back-End

- Modular
  - Built under a service interface (“service oriented architecture”)
  - Implements CalIntf
    - Comes with a Hibernate implementation on a local database
    - Could have, for example, a CalDav implementation with a remote calendar
    - Or both: many implementations simultaneously possible (e.g. Exchange connector)
    - This gives us server-side aggregation of calendars

Portlet Implementation

- JSR-168
- Implemented for Jetspeed using the portal-struts bridge
- uPortal version implemented by Satish Sekharan (Memorial University, Newfoundland)
CalDAV Implementation

- Emerging standard
- Based on WebDAV
- Provides synchronization
- Promises flexibility in choice of user client
- Clients and servers being developed by vendors now: Oracle, Mozilla, Evolution
- Outlook OpenConnector for caldav: openconnector.org

Sync Implementation

- Have proof of concept implementation of synchronization using SyncML
- Successfully synchronized with Outlook
- Funambol (previously called Syn4j) supports synchronization with many devices:
  - Microsoft Outlook
  - RIM Blackberry
  - Palm
  - Microsoft Smartphone
  - Microsoft Windows Mobile PocketPC
  - Apple iPod
- See http://www.funambol.com/opensource/
• XML-based J2EE web applications built in the MVC framework

• Separate business logic from presentation and presentation from content so that each can be developed independently

```
MVC
Java  JSP
XML
```

```
XSLT
HTML
RSS
iCal
XML
...```

```
business
logic
design
content
```
Our Design Approach

- Applications are accessible to regular web designers
- XSLT lives in designer’s world
- Easy to change look and feel
- XSLT files live on the web “outside” our applications and are called over http and cached
- We don’t need to redeploy an application to change its appearance or to deploy a new skin

Progress
What’s been accomplished over the past year
• Implemented Hibernate
• Improved RFC compatibility
• Extended CalDAV support
• JSR-168 portlet implementation
• Recurrences
• Better date / time support
• Access control and sharing
• Improved user interfaces & added features
• New user interfaces

• CalConnect participation
  – participate in interoperability tests
  – member of CalDAV technical committee
  – http://www.calconnect.org
• EPFL Switzerland have chosen Bedework. Jahia will work on development of group calendaring
• Memorial University Newfoundland Provided skins, worked on uPortal, widgets and OpenLaszlo client.
Demonstration
Future Plans

- Departmental calendars
- Group calendaring
- Event notification (alerts)
- Emailing of events
- Support clustering
- Room / resource scheduling

✓ = imminent
• Major goal:
  - ease installation and configuration
  - encourage adoption and development

References

bedework.org