



Bedework 3.3.2

open source calendaring for the enterprise

Communications & Middleware Technologies

Rensselaer Polytechnic Institute

June 6, 2007

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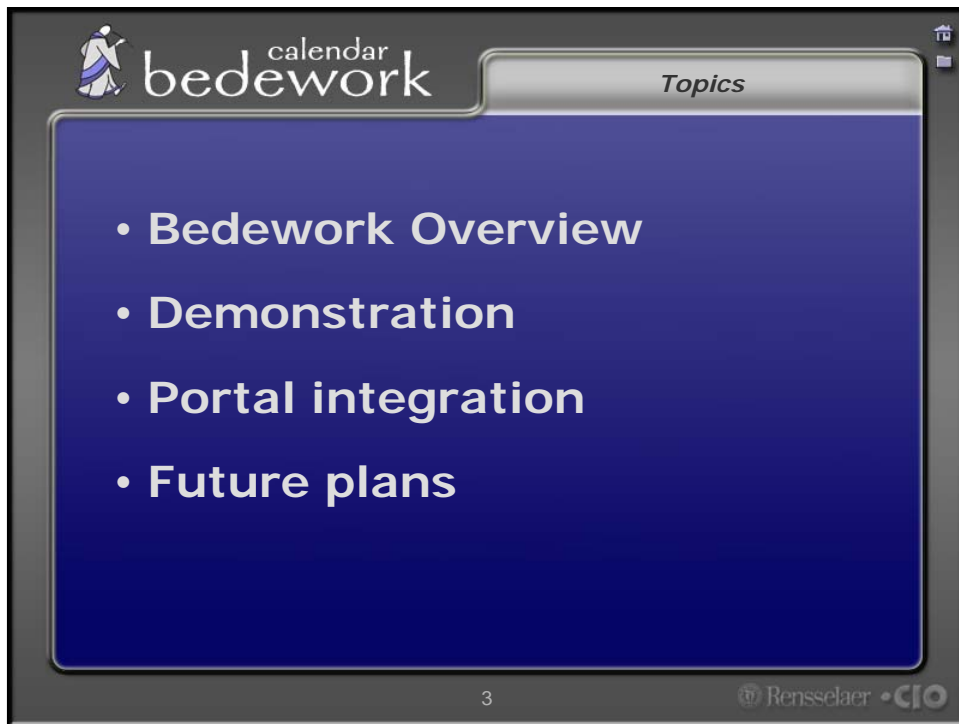
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Communications & Middleware Technologies

Division of the Chief Information Officer

Rensselaer Polytechnic Institute





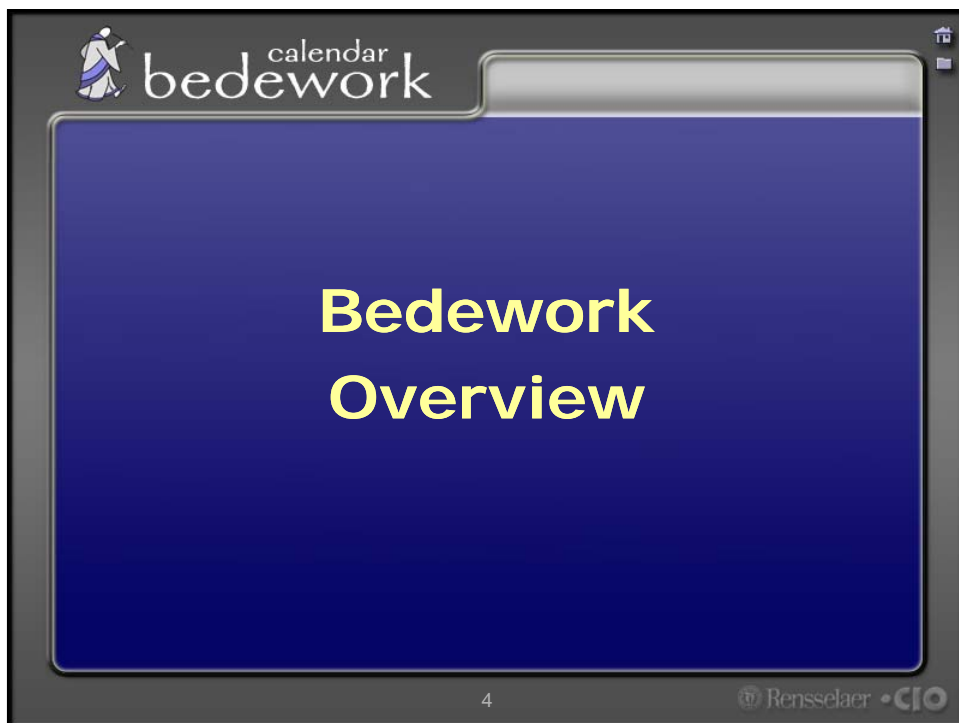
calendar
bedework

Topics

- **Bedework Overview**
- **Demonstration**
- **Portal integration**
- **Future plans**

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This slide is titled "calendar bedework" and "Topics". It features a blue background with a white list of four items: "Bedework Overview", "Demonstration", "Portal integration", and "Future plans". The slide is numbered "3" in the bottom left and includes the "Rensselaer • CIO" logo in the bottom right.



calendar
bedework

**Bedework
Overview**

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This slide is titled "calendar bedework" and "Bedework Overview". It features a blue background with the text "Bedework Overview" in large, bold, yellow font. The slide is numbered "4" in the bottom left and includes the "Rensselaer • CIO" logo in the bottom right.



An enterprise calendar could provide:

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



- Institutional public events
- Low "buy-in" cost
 - integrates with extant campus directories
 - integrates with extant campus authentication
 - no license or usage fees
 - works with many databases
 - distributed administration
 - easily "skinnable"
- JSR-168 (portal) "friendly"
- Used and developed by multiple universities
- Open Source
- Assume not the only calendaring system on campus
 - access server with "non-native" client
 - integrate with other apps such as R25
 - interoperate with other calendaring systems



- 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 : RFC 4791
<http://www.ietf.org/rfc/rfc4791.txt>
- Why? ...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

- Four main components:
 - public suites
 - personal client
 - administrative client
 - CalDAV





- **In production**

- Bishop's University (Canada)
- Cornerstone University (US)
- Dalhousie University (Canada)
- Jahia Software (Switzerland)
- Montana State University (US)
- Public University of Navarra (Spain)
- Queens University (Canada)
- Rensselaer Polytechnic Institute (US)
- University of Maryland (US)
- University of Washington (US)

- **In development**

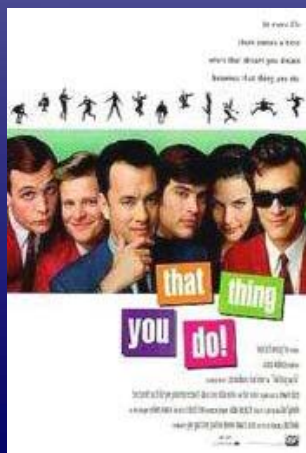
- EPFL (Switzerland)
- Mann Library (Cornell, US)
- Memorial University of Newfoundland (Canada)
- Public University of Navarra (Spain)
- Stockholm University (Sweden)
- University of British Columbia (Canada)
- University of Chicago (US)
- University of Maine, Fort Kent (US)



- **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!





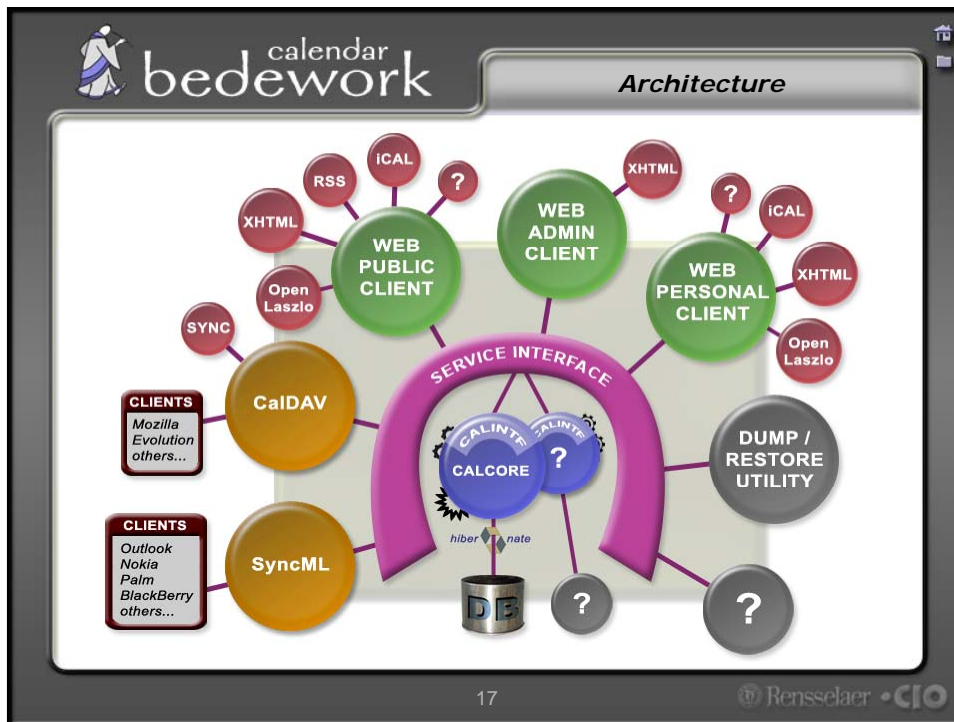
- Features:
 - Distributed, fine grained administration
 - Administrative groups
 - Location and contacts management
 - Access control & sharing
 - Stand-alone & portlet implementations
 - True synchronization
 - Meeting scheduling, freebusy aggregation
 - Highly customizable look and feel
 - Deliver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



- Java / J2EE
- XML, XSLT
- Hibernate

- Again, supporting
JSR-168 and CalDAV



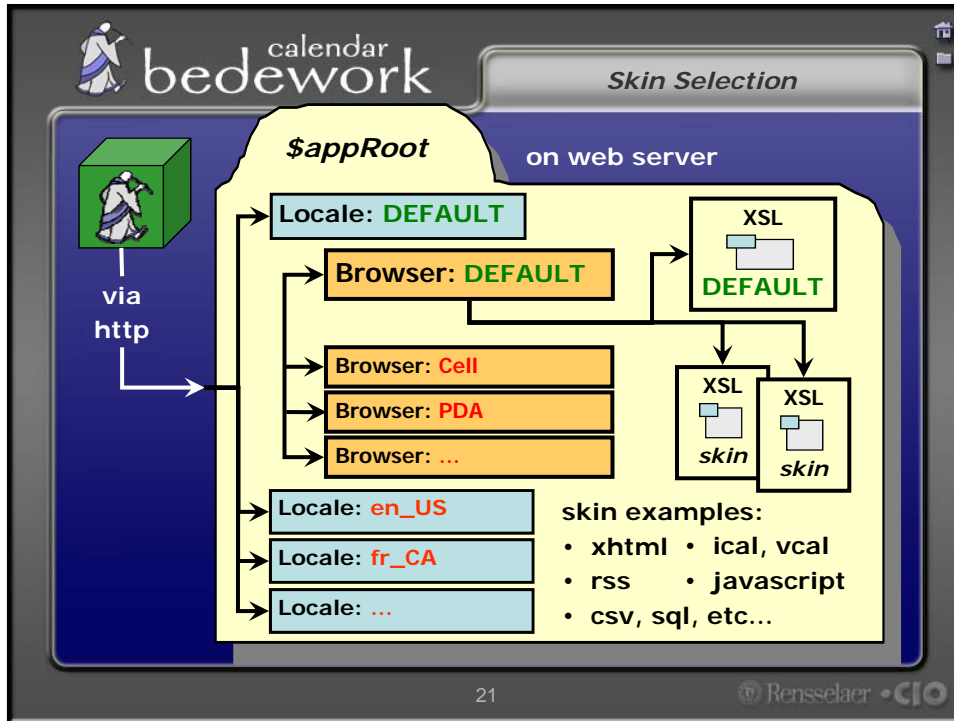


- calendar bedework Bedework Back-End
- Modular
 - Built under a service interface (“service oriented architecture”)
 - Implements Callntf
 - Comes with a Hibernate implementation on a local database
 - Could have, for example, a CalDav implementation with a remote calendar
 - Or both: many implementations simultaneously possible (e.g. Exchange connector)
 - This gives us server-side aggregation of calendars
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- **CalDAV : RFC 4791**
<http://www.ietf.org/rfc/rfc4791.txt>
- Emerging standard
- Based on WebDAV
- Provides synchronization
- Promises flexibility in choice of user client
- Clients and servers being developed by vendors now: Apple, Oracle, Mozilla, Evolution
- Outlook OpenConnector for caldav:
openconnector.org

- 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





calendar bedework

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

Designer's World

Templates

Images

CSS

HTML

XSLT

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calendar bedework Rensselaer

Rensselaer Calendar of Events - Mozilla Firefox
http://events.rpi.edu/main/showMain.do

Rensselaer
RENSSELAER INSTITUTIONAL CALENDAR OF EVENTS

Calendar of Events
Week of June 3, 2007

View: All

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
10:00 AM - 11:00 AM: Academic Staff Council - Statewide Meeting	9:00 AM - 10:00 AM: Academic Staff Council - Statewide Meeting	9:00 AM - 10:00 AM: Academic Staff Council - Statewide Meeting	10:00 AM - 11:00 AM: Academic Staff Council - Statewide Meeting	10:00 AM - 11:00 AM: Academic Staff Council - Statewide Meeting	10:00 AM - 11:00 AM: Academic Staff Council - Statewide Meeting	10:00 AM - 11:00 AM: Academic Staff Council - Statewide Meeting

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calendar bedework Dalhousie

Events @ Dal - Mozilla Firefox
http://my1.dal.ca/events/showMain.do

DALHOUSIE UNIVERSITY
Events@Dal

Events@Dal

DATE	WEEK	MONTHLY	YEAR	SEARCH	PRINT	EXPORT
Monday, June 4, 2007	Jun 4 - Jun 12	SIMPLY ACCOUNTING 2008 Level 1, Kilham Library, Basement	Details Download			
Tuesday, June 5, 2007	Jun 4 - Jun 12	SIMPLY ACCOUNTING 2008 Level 1, Kilham Library, Basement	Details Download			
	8:30 AM	ACCESS ACROBAT 3 Introduction, Kilham Library, Basement	Details Download			
	10:00 AM	NSERC Research Partnership Program, Kessel-C Rowe Building, Room 1018	Details Download			
	12:00 PM - 1:00 PM	Working with the Gradstack, Kilham Basement B260	Details Download			
Wednesday, June 6, 2007	Jun 4 - Jun 12	SIMPLY ACCOUNTING 2008 Level 1, Kilham Library, Basement	Details Download			
	Jun 4 - Jun 7	ACCESS 2003 Level 1, Kilham Library, Basement	Details Download			
	10:00 AM - 12:00 PM	BL3 Fundamentals, Kilham Basement B260	Details Download			
	12:00 PM - 2:00 PM	BL3 Fundamentals, Kilham Basement B260	Details Download			
	2:00 PM - 3:00 PM	Introduction to Performance Systems (L7/P7), Kilham Basement B260	Details Download			
Thursday, June 7, 2007	Jun 4 - Jun 12	SIMPLY ACCOUNTING 2008 Level 1, Kilham Library, Basement	Details Download			
	Jun 4 - Jun 7	ACCESS 2003 Level 1, Kilham Library, Basement	Details Download			
	10:00 AM - 11:30 AM	Course Content Authoring (Introduction to Dreamweaver), Kilham Basement B260	Details Download			
	12:00 PM - 2:00 PM	BL3 Fundamentals, Kilham Basement B260	Details Download			
	12:00 PM - 1:30 PM	Parents as Career Coaches, Student Union Building, room 307	Details Download			
	2:00 PM - 3:30 PM	Live Classroom (Advanced), Kilham Basement B260	Details Download			

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calendar bedework Queens

Queen's University Events Calendar - Mozilla Firefox

http://eventscheduler.queensu.ca/cal/howPlan

Queen's University Events Calendar

Week of April 22, 2007

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
<p>22</p> <p>Science and Tech by A.C.E. '07</p> <p>Earth Day at the St. Catharines</p> <p>Pharmacology/Pharmaceuticals</p> <p>Salman Dr. Calls Parents</p>	<p>23</p> <p>Science and Tech by A.C.E. '07</p> <p>ACE Charms Presentation</p> <p>Taking Charge</p> <p>Searching Faculty for Scientists and Engineers</p> <p>Salman Dr. Calls Parents</p>	<p>24</p> <p>Science and Tech by A.C.E. '07</p> <p>ACE Charms Presentation</p> <p>Searching Faculty for Scientists and Engineers</p> <p>Salman Dr. Calls Parents</p>	<p>25</p> <p>Science and Tech by A.C.E. '07</p> <p>Materials and Nanotechnology Symposium</p> <p>Notes @ Noon</p> <p>PhD</p> <p>Calculation of the Linnage</p> <p>UNESCO Chair in Environment: Dr. Julie</p> <p>ACE Day reading: King's Wedding</p> <p>IT Services: Introduction to QShare</p>	<p>26</p> <p>Science and Tech by A.C.E. '07</p> <p>Materials and Nanotechnology Symposium</p> <p>Notes @ Noon</p> <p>Cardiac Bank</p> <p>Environmental Engineering</p> <p>Salman Dr. Calls Parents</p> <p>ACE Day reading: King's Wedding</p> <p>IT Services: Department of Chemistry is School of Environmental Science</p> <p>Searching Faculty for Scientists and Engineers</p> <p>Chargers</p> <p>Supernova: Getting More Out of Clinical Supervision</p>	<p>27</p> <p>Science and Tech by A.C.E. '07</p> <p>2007 MBA Policy Forum and Bow Lecture</p> <p>Biology seminar: Algae: From</p> <p>Expression/line</p> <p>Villa Abundantia</p> <p>desire</p>	<p>28</p> <p>Science and Tech by A.C.E. '07</p> <p>2007 MBA Policy Forum and Bow Lecture</p> <p>Expression/line</p> <p>Villa Abundantia</p> <p>desire</p>

Calendar Information RSS Feeds Admin Campus Mail Alumni Events Contact Us

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Queen's University is located in Kingston, Ontario, Canada. With 17 faculties and schools, Queen's is one of Canada's leading research intensive universities. For general information, phone: 613.333.2000

Done


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Progress

What's been accomplished over the past year

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Progress

- Implemented Hibernate
- Improved RFC compatibility
- Extended CalDav support
- JSR-168 portlet friendlier – Liferay, uPortal
- Recurrences
- Better date / time support
- Access control and sharing
- Improved user interfaces & added features
- Meeting scheduling & Freebusy
- Oracle database friendly
- New adopters – large and small

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Progress

- CalConnect participation
 - participate in interoperability tests
 - member of CalDAV technical committee
 - <http://www.calconnect.org>
- University of British Columbia, University of Chicago, University of Maryland, Memorial University Newfoundland, EPFL Switzerland

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- Bedework was among the 10 initial recipients of The Andrew W. Mellon Foundation's Technology Collaboration (MATC) award for leadership in the collaborative development of open source software



Demonstration

calendar bedework *Demonstration*

The screenshot displays three overlapping windows from the Bedework calendar system. The top-left window is titled 'Bedework Calendar Administration' and shows a 'Main Menu' with options like 'Home', 'Calendar', 'Locations', and 'Categories'. The bottom-left window is titled 'Personal Calendar' and shows a monthly view for April 2007. The right window is titled 'Rensselaer Calendar of Events' and shows a monthly view for August 2006 with a grid of dates and event listings.

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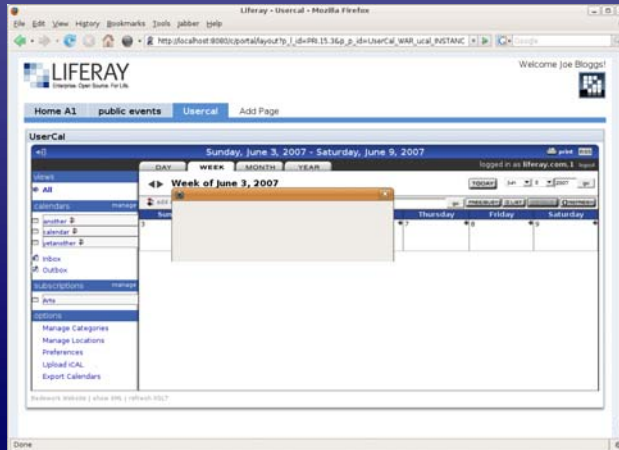
calendar bedework

Portal Integration

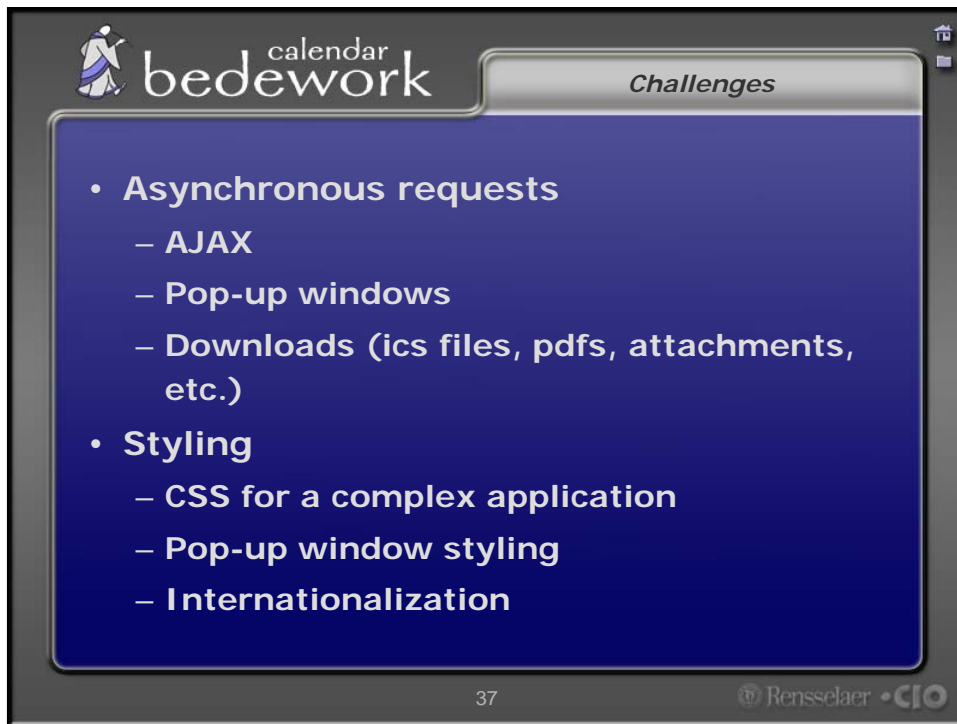
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- Our goal:
 - Create a portal-agnostic JSR-168 Bedework portlet
 - Make Bedework as easy to run in a portal as it is to run stand-alone
 - Stand-alone version and portal version must be able to co-exist

- Proof of concept:
 - Jetspeed - using the portal-struts bridge
 - uPortal – Memorial University of Newfoundland (jsr168)
- Production/Development:
 - uPortal v2.5.1 - University of British Columbia (proxy)
 - BEA Portal (Plumtree) - University of Maryland (proxy)
 - Liferay 3 - Cornerstone University (jsr168)
 - Liferay 4 – Rensselaer (jsr168??)



1. Download Bedework Quickstart
2. Configure database
 - Currently, need to build Bedework with a different DB than HSQL (to avoid conflicts with Liferay), e.g. MySQL
3. Customize properties files
 - Uncomment Liferay stuff in config file
 - Set properties to point at deploy directories (resources and portlet hot-deploy)
4. Rebuild Bedework
5. Run Liferay and add Bedework to a page (e.g. personal client)



The slide features a dark blue background with a white border. In the top left corner, there is a logo for 'calendar bedework' with a small icon of a person. To the right of the logo, the word 'calendar' is in a smaller font above 'bedework'. In the top right corner, there is a small icon of a house and a square. Below the logo, the word 'Challenges' is written in a white, italicized font. The main content is a list of bullet points in white text. At the bottom left, the number '37' is displayed. At the bottom right, there is a logo for 'Rensselaer CIO'.

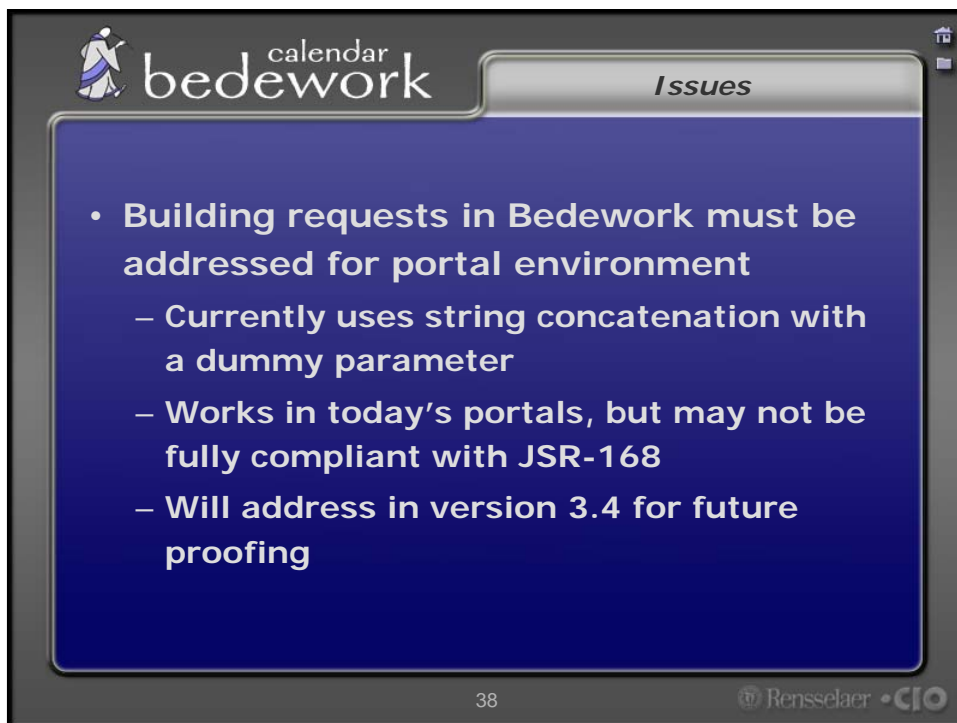
calendar bedework

Challenges

- Asynchronous requests
 - AJAX
 - Pop-up windows
 - Downloads (ics files, pdfs, attachments, etc.)
- Styling
 - CSS for a complex application
 - Pop-up window styling
 - Internationalization

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calendar bedework

Issues

- Building requests in Bedework must be addressed for portal environment
 - Currently uses string concatenation with a dummy parameter
 - Works in today's portals, but may not be fully compliant with JSR-168
 - Will address in version 3.4 for future proofing

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- Portlet 2 specification addresses most of these issues
- In the meantime we must live with constraints to be portal agnostic



Future Plans



- Public event submission / approval
- Change notification - email etc
- Complete implementation of scheduling
- Federated scheduling
- More AJAX features in the clients (improve UI)
- Various RFC features - todos, attachments
- Complete implementation of multi-language support
- Microsoft SQLServer friendlier
- Improve packaging and installation
- Improve Outlook/Exchange interoperability
- Improve JSR168 support and integration
- Tuning and optimization



- Major goal:
 - ease installation and configuration
 - encourage adoption and development

- **Enlightened self interest**
 - Deliver value locally (at RPI)
 - 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 ed**
 - Continue to grow the user community
 - Continue to grow the contributor community
- **Bedework is positioned and implemented to be what you need it to be**
 - Low cost
 - Flexible
 - Integratable
 - Public events, departmental calendars, personal calendars, calendar server – one, or more, or all
- **Standards compliance is key to Bedework's success, present and future**

- **Consider joining CalConnect**
 - About half the member organizations are research universities
 - <http://www.calconnect.org>



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References



bedework.org