UCCSC Presentation
The Value of Open Source: Extending Our Research Admin Software to Meet Our Campus Needs

Presented by:
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What and Who?

• What is the Software?
  – Kuali Coeus

• Who uses it?
  – Office of Research
Office of Research

• What is the Office of Research?
  – OR provides central campus administrative support for UCI’s research programs. It includes the following:
    • Research Administration
    • University Laboratory Animal Resources (ULAR)
    • Research Development
    • Administrative Operations and Planning
    • Office of the Vice Chancellor for Research
Research Administration Software

- Kuali Coeus
- Originally Open Source
- Currently owned by Kuali Inc.
  - Link to Website: https://www.kuali.co/products/research/#intro
  - Link to source code: https://github.com/kuali/kc
- Kuali community includes member campuses who use the software and may contribute code back to Kuali
Kuali Coeus at UCI for FY 2016-17

- 2,400 + proposals / year
- Over $378M extramural funding
- Proposal Development since August 2012
- Conflict of Interest (COI) since 2016
- Negotiations since 2016
Benefits of KC

• Moved from paper forms to electronic process
  – Reduction of administrative burden
  – Increased routing speed
  – Increased transparency
  – Easy access to documents
Technology Stack of KC

• KC is a Java EE web application
• Uses Maven, Spring, OJB, and Struts
• Connects to either an Oracle DB or MySQL
  – UCI is using Oracle
Maven WAR Overlay

• Part of the maven-war-plugin
• Can be used to merge two projects into one .war file
• UCI created separate project to house our KC customizations & used Maven Overlay to combine them with the base KC code
Maven WAR Overlay

Overview of KC

Base KC Project + UCI's KC Project

Resulting Overlayed WAR file
Spring Bean Overrides

• Using Spring to override services & integrate our code into base KC product
Customizations to KC

- Cayuse 424 Integration
- KC Conflict of Interest (COI)
- Negotiations Modules
  - Federal/Non-Federal
  - Subaward
  - Clinical Trials
What is Cayuse 424?

- Vendor product from Cayuse
- Handles S2S (System-to-System) submissions for Grants.gov and Research.gov proposals
Quicklink Field in KC
Initial Data Synchronization of Key Personnel

**Cayuse 424 Integration**
How We Integrated with Cayuse 424

• Cayuse provided SOAP Web services to obtain data from their system
• We created a library to transfer proposal details, personnel list from Cayuse to KC proposal document, using their Web services
Benefits of using Cayuse 424

• Efficient and accurate submission of high-volume of proposals
• Real-time error checking
• Extensive auto-fill capabilities
• Direct and instant transmission to grants.gov
Conflict of Interest (COI)

How the functional process changed to make implementation of KC COI easier:

• Changed from project-based to annual disclosure requirement for projects funded by PHS
• Only require investigators with positive annual disclosures to complete event-based disclosures for projects with funding from NSF
Benefits of using KC COI

Reduction of administrative burden

• Investigators without financial entities only have to complete annual disclosures once a year

• Investigators with positive disclosures complete fewer forms
## Example of COI Form Reduction

<table>
<thead>
<tr>
<th>Type of Disclosure</th>
<th>Old Process</th>
<th>New Process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negative</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(no financial</td>
<td>Project A: 800</td>
<td>All Projects:</td>
</tr>
<tr>
<td>interests)</td>
<td>Project B: 800</td>
<td>Annual Disclosure (KC COI)</td>
</tr>
<tr>
<td></td>
<td>Project C: 800</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Project D: 800</td>
<td></td>
</tr>
<tr>
<td><strong>Total Forms:</strong></td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total Forms:</strong></td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td><strong>Positive</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(financial</td>
<td>Project A: 800, 810, 820</td>
<td>All Projects:</td>
</tr>
<tr>
<td>interests)</td>
<td>Project B: 800, 810</td>
<td>Annual Disclosure (KC COI)</td>
</tr>
<tr>
<td></td>
<td>Project C: 800, 810, 820</td>
<td>Annual Form 810 (Paper)</td>
</tr>
<tr>
<td></td>
<td>Project D: 800, 810</td>
<td>Project A: 820</td>
</tr>
<tr>
<td><strong>Total Forms:</strong></td>
<td>10</td>
<td>4</td>
</tr>
</tbody>
</table>
Benefits of using KC COI

Reduction of administrative burden (con’d)

• Creation of the Personnel doc improved the process for continuing awards
  – Provides convenient way to update personnel
  – Creation of PI Assistant role allows someone else to update on behalf of the PI
Creation of the Personnel Doc

- New document to allow researchers to annually update list of personnel for a research study
  - Integrates with KC’s COI module to check for COI disclosures
- Created brand new classes to support new Personnel Doc
- Separated Personnel Doc from existing code to make upgrade process easier
- We are proposing to Kuali functional groups that we contribute the code back to Kuali
UC Learning Center (UCLC)

UCI created a library to interface with UCLC to obtain training transcripts
Proposal Summary Tab in KC Proposal
Creation of Customized Negotiations Modules

We customized the Fed/Non-Fed Negotiations Module to create additional modules:

• Outgoing Subawards Negotiations Module
• Clinical Trials Negotiations Module
Fed/Non-Fed Negotiations Module
Outgoing Subawards Negotiations Module
Clinical Trials Negotiations Module

<table>
<thead>
<tr>
<th>Negotiation Status: In Progress</th>
<th>Negotiation Dates: Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negotiator: select</td>
<td>Negotiation Age in Days: 0</td>
<td></td>
</tr>
<tr>
<td>Action: select</td>
<td>Award Types: select</td>
<td></td>
</tr>
</tbody>
</table>

**Regulatory Status**
- IRB: Not Applicable
- COI: Not Applicable
- Approved KC Document Received by SPA: Not Applicable

**Activities & Attachments**
- Activity Start Date: [ ]
- Activity End Date: [ ]
- Status: select
- Number of Days: [ ]
- Follow-up Date: [ ]
- Activity End Date: [ ]
- Create Date: [ ]
- Last Update: [ ]
- Last Update By: [ ]
- External Notes: [ ]
- Internal Notes: [ ]
- Attachments: [ ]
  - File: Browse No File Selected.
  - Description: [ ]

[Add Activity] add activity
Comparison Fed/Non-Fed and CT

Fed/Non-Fed Negotiation

<table>
<thead>
<tr>
<th>Responsible Party</th>
<th>Action to be Taken</th>
<th>Activity Start Date</th>
<th>Activity End Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PI/Department Admin</td>
<td>COI Approval</td>
<td>12/05/2016</td>
<td></td>
<td>PI still needs to complete follow up COI disclosures</td>
</tr>
<tr>
<td>Regulatory Compliance Unit(s)</td>
<td>COI Approval</td>
<td>05/17/2016</td>
<td></td>
<td>Pending disclosure review.</td>
</tr>
<tr>
<td>SPA</td>
<td>Award/Agreement Review</td>
<td>05/17/2016</td>
<td></td>
<td>5/16/16-Award Received</td>
</tr>
<tr>
<td>PI/Department Admin</td>
<td>Provide Additional Documentation/Information</td>
<td>05/17/2016</td>
<td>05/19/2016</td>
<td>5/17/16-Requested Form 800(s)</td>
</tr>
</tbody>
</table>

Clinical Trial Negotiation

<table>
<thead>
<tr>
<th>Regulatory Status</th>
<th>Approval Dates*</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRB:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COI:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approved KC Document Received by SPA:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Approval in this instance means it has been cleared.

<table>
<thead>
<tr>
<th>Status</th>
<th>Activity Start Date</th>
<th>Activity End Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract Terms Finalized (Excludes Budget &amp; Payment Terms)</td>
<td>04/27/2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under Negotiation Between SPA and Sponsor/CRO</td>
<td>04/24/2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPA Received Response from Sponsor/CRO</td>
<td>04/21/2017</td>
<td>04/21/2017</td>
<td></td>
</tr>
<tr>
<td>Initial Redlines Sent to Sponsor/CRO</td>
<td>04/20/2017</td>
<td>04/20/2017</td>
<td></td>
</tr>
<tr>
<td>Notification to SPA</td>
<td>04/19/2017</td>
<td>04/19/2017</td>
<td></td>
</tr>
</tbody>
</table>
Future Plans for UCI’s Implementation of Kuali

Upgrade to Kuali Research...
Upgrade to Kuali Research

• Kuali Research (KR) replaces Kuali Coeus (KC)
• KR Proposal Development & Negotiations – Target July 2018
• KR Award – Target January 2019
• KR COI – Target July 2019
  – Complete upgrade with new functionality
Final Tip: customization of open source software may be the best solution at your institution...

We are here to help!
Questions?
Contact Information

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