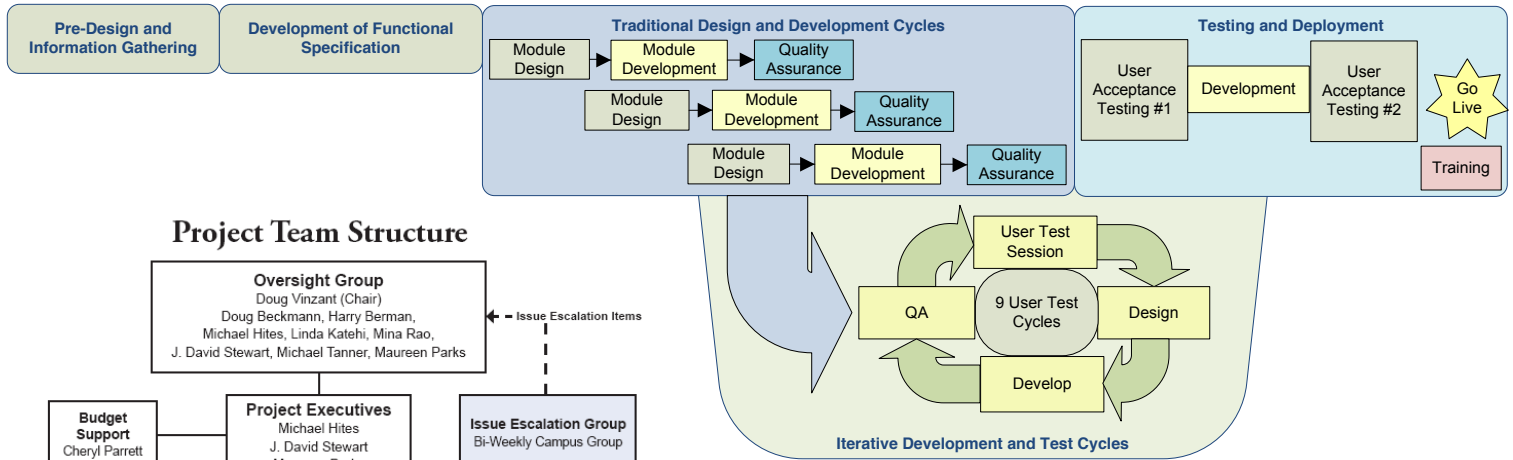


Building Really Big Homegrown Enterprise Software from Scratch

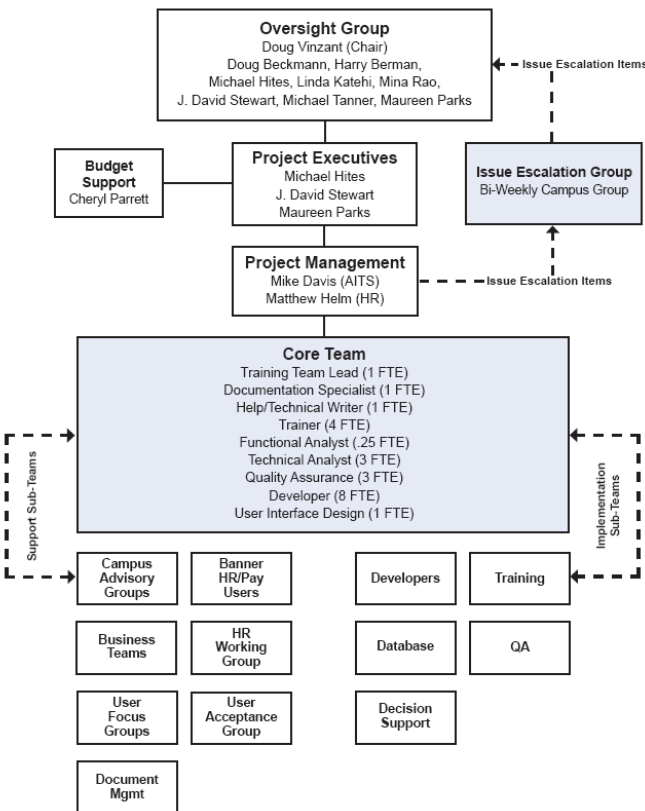
EDUCAUSE Midwest Regional Conference 2009

Following a dissatisfying experience with a new HR system roll out, the University of Illinois designed a new web-based front end for its ERP's HR component. This successful project required a three-year commitment from HR and IT and resulted in better workflow, intuitive data entry, increased satisfaction, and a new collaborative software development methodology.

Development Life Cycle



Project Team Structure



Key Implementation Strategies

- **“The Magic 162”** Have defined units of scope that help identify and divide the work initially and then refocus in on the most critical functions of the system. This was done by first defining the system in terms of “modules” then working within these module areas to refine application functionality. Finally the 162 key scenarios were identified which provided a story of how the modules work together as well as a measuring point as to whether the product was working or not.
- **Management commitment.** Strong commitment from top management to see this project to completion. The drain on resources (developers, analysts, trainers, end users) for this project was substantial.
- **Flexible and iterative development methodology.** The testing cycles and user involvement needed was absolutely critical for defining all of the requirements and keeping the users close to the product throughout the project.
- **A single source of truth.** Have a central repository for tracking changes, defects, and issues. It served as the system of record for requirements in many ways and provided metrics to track progress and how far we still have to go.
- **Maintain fallback positions.** Flexibility and other options were needed to adjust dates, change scope, and provide a safety net for users to feel comfortable in accepting the product along the way and allowing them to move forward.

Contacts:

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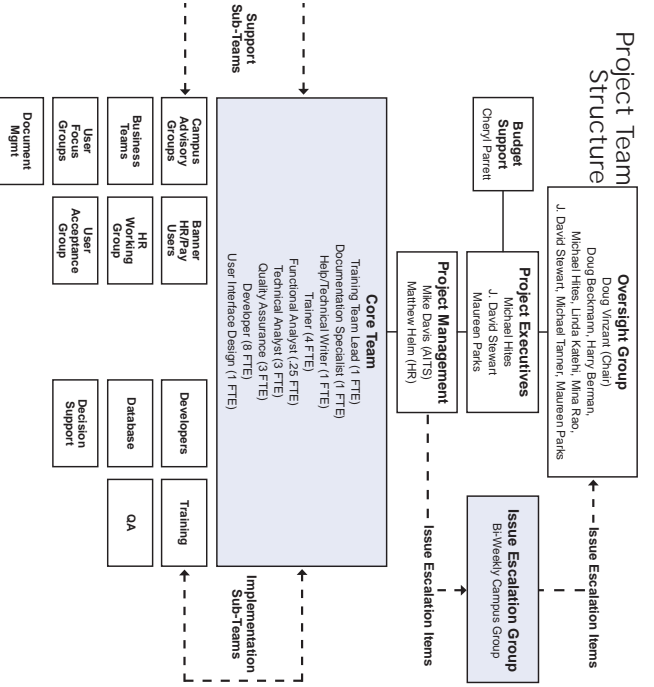
Nyle Bolliger nbollige@Illinois.edu
Director of Application Development, AITS
University of Illinois Central Administration

Project Facts:

Project Duration: 5+ years
Project Budget: \$4.7 Million
Size of User Base: 700+ users
Number of Departments: 63
Number of Project Participants: 350
Number of Development Hours: 75,000+
Size of Application: 16 Modules with over 94,000 lines of code

Building Really Big Homegrown Enterprise Software from S

System	Feature Comparison ECOS, Banner, and HRFE					SCT	HRFE
	Legacy Payroll	UFAS	SAS	ECOS 1 1996	ECOS 2 1997-98		
Feature	30	10	6	15	20	25	50
Interface	Batch	Batch	Client	Client	Client	Client	3
EAI and Enterprise Integrated							Y
Org Structure Codes							Y
Finance Codes							Y
Search for Employee							Y
User Preferences							Y
Appointment Info							Y
Document Attachment							Y
Work Schedules							Y
Transaction Types							18
Wizards							0
Post-Apply processes							0
Demographic Person Info							Y
Separation Form							Y
LOA Form							Y
Work History							Y
New Employee							Y
Change Employee Group							Y
Salary Calculator							Y
Full View							Y
Alert Routing / Request Access							Y
Multi-org Routing							Y
Sendto							Y
Group							Y
Alert Messages Admin							Y
Reports							Y



Key Implementation Strategies

"The Magic 162" - Have defined units of scope that help identify and divide the work initially and then refocus in on the most critical functions. **Breakdown of Project Team Hours**

By first defining the system in terms of "modules," then working within these module areas to refine application functionality. Finally the 162 key scenarios were identified, which provided a story of how the modules work together as well as a measuring point as to whether the product was working or not.

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Maintain fallback position - flexibility and other options were needed to adjust dates, change scope, and provide a safety net for users to feel comfortable in accepting the product along the way and allowing them to move forward.

Departments, Units, and Colleges Involved in User Design and Testing Sessions

IC O's:es:

UIS O's:es:

User Testing Session

HR Front End Project Budget Breakdown (as of 12/1/03)		
	Baseline Budget Commitment	Actual Expenditures
Resources	\$2,020,000	\$1,830,000
HR Project Managers	\$3,176,260	\$2,564,950
Training Resources	\$481,521	\$820,117
Decision Support Resources	\$277,520	\$385,410
	\$77,295	\$27,785
	\$1,098,967	\$1,033,300
Capitalize		
Hardware	\$112,624	\$126,403
Software	\$50,000	\$17,946
Consulting/Manhours	\$20,000	\$23,967
Tanner	\$50,000	\$72,269
Miscellaneous	\$44,000	\$3,147
	\$281,624	\$249,735
Total Logistics	\$4,792,951	\$3,819,987

Project Tracking Report

