IPRO 338 Spring 2005

iKNOW: A Knowledge Management System for IPROS
Challenge

- IPRO Team Knowledge is getting lost in the stack
- Process Knowledge accumulated in one semester is lost in future semesters
IPRO 338 Meets the Challenge!

iKNOW is the Knowledge Management System for IPROs

- Web-based access
- Fully indexed by document author, title, expertise, and content
- Any member of an IPRO can add his knowledge to the database
iKNOW Demonstration

Let's get online!
History of IPRO 338

Fall 2003 - Researching Knowledge Management; Stating the Problem

Spring 2004 - Design and Implementation of an iKNOW Prototype

Summer 2004 - Testing and Implementation

Fall 2004 - Iteration of prototype to releasable version (1.1)
IPRO 338 Major Accomplishments

- Seeded iKNOW with past IPRO data
- Produced user manual and tutorials
- Continued internal development to remove bugs and improve system
- User interface upgrades implemented from the results of a usability study and reports from team liaisons in the field
- Deployed external interface (SOAP)
Rolling It Out!

Data Inventory Upload
Expert Database
Team Liaison
Process Knowledge
User Manuals
Tutorial Videos
iKNOW User Manual Table of Contents

I. Welcome to iKNOW
II. Accessing iKNOW
III. The iKNOW Introductory Training Video Interface
IV. The IPRO Dropdown Menu and Search Engine
V. Adding an IPRO Required Deliverable in iKNOW
VI. Editing an IPRO Required Deliverable in iKNOW
VII. Adding an IPRO Work Product Deliverable in iKNOW
VIII. Editing an IPRO Work Product Deliverable in iKNOW
IX. Highest Rated and Most Recent
X. Locating People Within iKNOW
XI. FAQs and Troubleshooting
Tutorial Movie

QuickTime™ and a Microsoft Video 1 decompressor are needed to see this picture.
Development

iKNOW Version 1.3
- Enhanced expert database
- Support for upload of large files
- IP address logging

iKNOW Version 1.4
- User interface modifications
  - Indication of required fields
  - Color scheme and logo changes
  - Progress bar shown during creation process
- Additional administrative functionality
Development

- Server issues
- Functional testing
  - Over 15 substantial bugs found and corrected
- Documentation
  - Database
  - Source code
Project Reporting System (PRS)

PRS is a collaborative submission tool that provides information to IPRO teams to assist in document creation and submission of IPRO deliverables.
Revisions to PRS

The IPRO Project Reporting System (PRS) is a complete record of an IPRO team's work, methodologies, and examples that are uploaded to PRS or may be developed. Deliverables expected of each team include:

- IPRO Course Syllabus (uploaded)
- Project Plan (collaboratively developed)
- Mid-Term Progress Report (collaboratively developed)
- Project Abstract (collaboratively developed)
- Final Project Report (collaboratively developed)
- Web Site (link provided in PRS)
- Team Presentation (uploaded)
- IPRO Day Exhibit Plan/Poster
PRS and the Simple Object Access Protocol (SOAP)

Project Reporting System

SOAP Interface

iKNOW
Adding the SOAP Interface

- **Motivation:** Allow iKNOW to connect to other databases and software
- **Simple Object Access Protocol (SOAP)**
  - Objects are defined in eXtensible Markup Language (XML) using the Java API for XML Bindings (JAXB)
  - Interface is implemented in Java with a servlet front-end
Designing the SOAP Implementation
Looking Forward

- Tighter project management integration
- Better search
- More SOAP functionality
- Improved security
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