

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

Lets get online!

History of IPRO 338

Fall 2003 - Researching Knowledge Management; Stating the Problem

Spring 2004 - Design and Implementation of an iKNOW Prototype

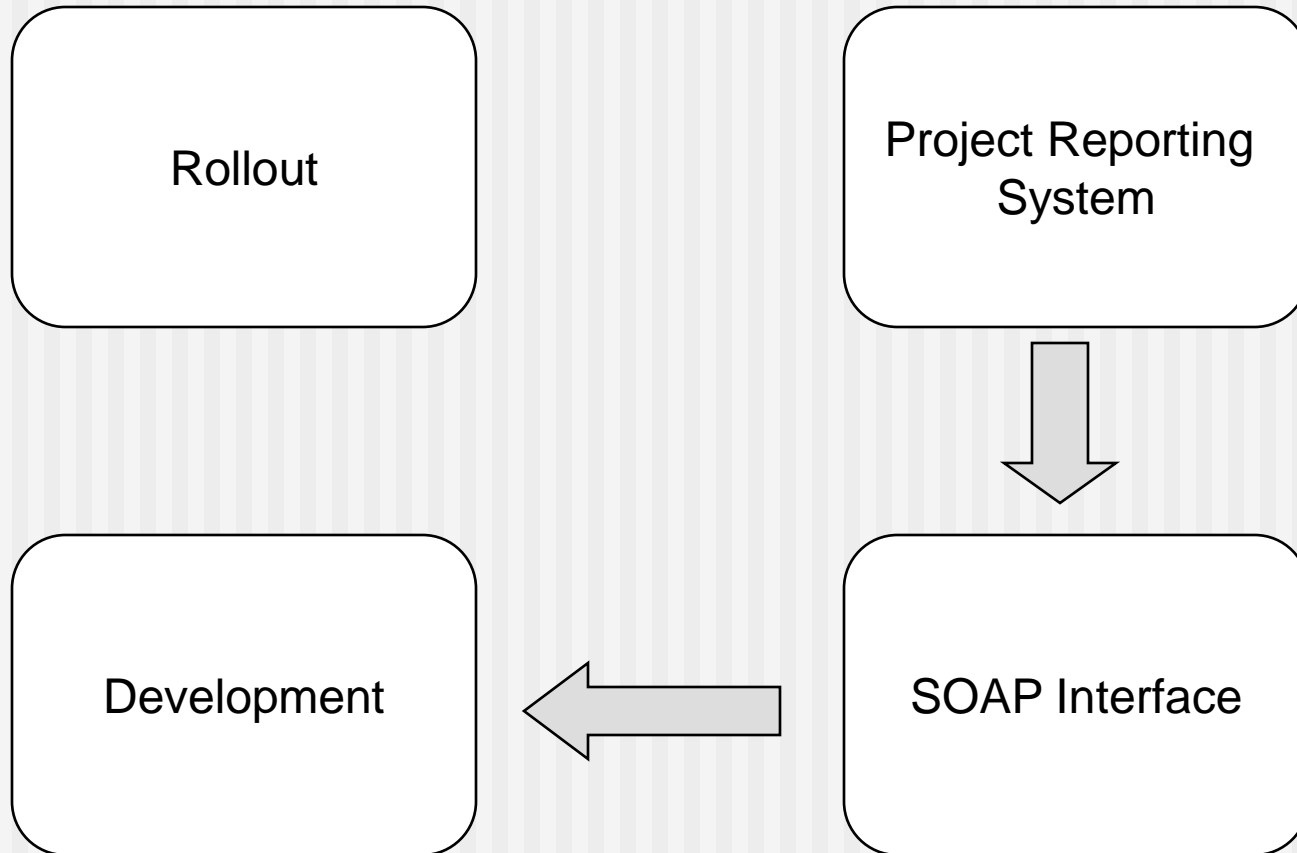
Summer 2004 - Testing and Implementation

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 liasons in the field
- Deployed external interface (SOAP)

Sub-Team Organization



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

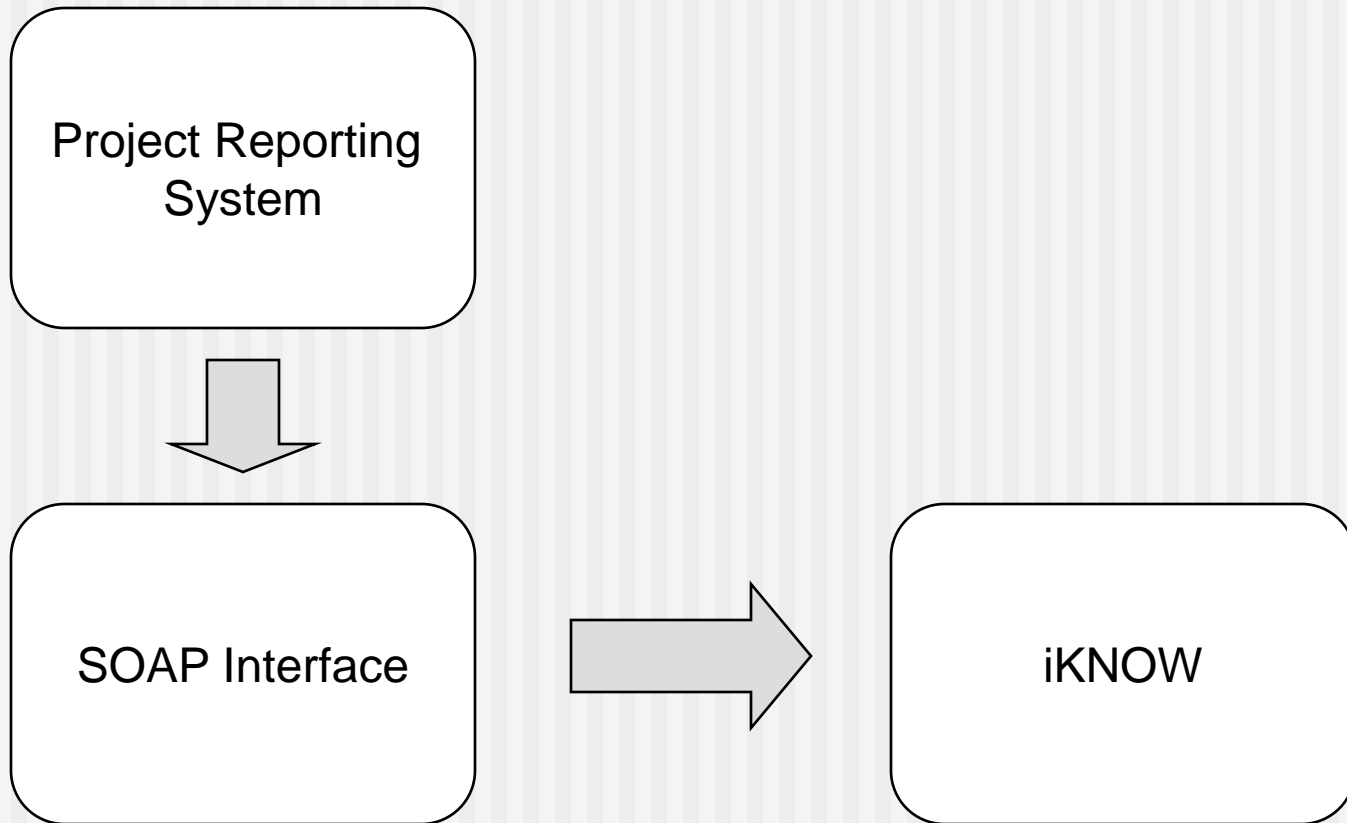
Project Reporting System

- ▶ **IPRO Home**
- ▶ **PRS Information**
- ▶ **Deliverables**
- ▶ **Weekly Reports**
- ▶ **IPRO Day Conference**
- ▶ **Team Information**
- ▶ **Examples**
- ▶ **File Submission**

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

- **IPRO Course Syllabus** (uploaded)
- **Project Plan** (collaboratively developed)
- **Mid-Term Progress Report** (collaborative)
- **Project Abstract** (collaborative)
- **Final Project Report** (collaborative)
- **Web Site** (link provided in PRS)
- **Team Presentation** (uploaded)
- **IPRO Day Exhibit Plan/ Poster**

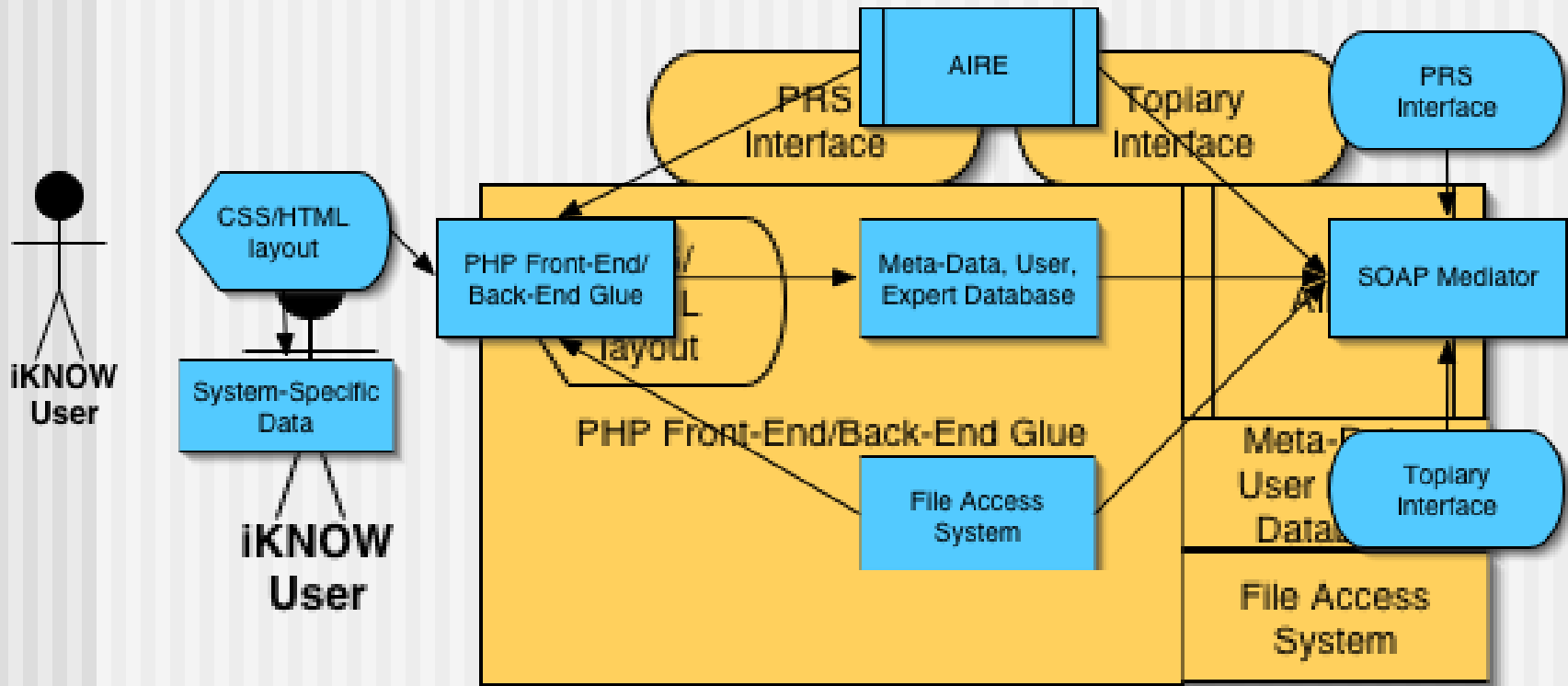
PRS and the Simple Object Access Protocol (SOAP)



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

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.