



Electronic Workflow at the American Chemical Society

.....
SSP Technology Blitz

November 18, 2004

David Levy

Assistant Director of Software Engineering

ACS Publications



Overview of the American Chemical Society

◆ Mission Statement

The Mission of the American Chemical Society is to encourage in the broadest and most liberal manner the advancement of the chemical enterprise and its practitioners.



Overview of the American Chemical Society

- ◆ Toward that end, ACS advances scholarly knowledge, provides the professional service support, communicates with varied audiences, and is actively involved in the science, education, and public policy arenas.



Overview of the American Chemical Society

- ◆ There are approximately 160,000 members
- ◆ The society is organized into divisions
 - Membership
 - Education
 - Publications
 - Chemical Abstracts



Publications Division Overview

- ◆ Chemical & Engineering News
- ◆ Weekly publication, free to ACS members, covering
 - Science and Technology
 - News and business
 - Government and Policy
 - Career and employment



Publications Division Overview

◆ Journals

- 33 Titles
- 200,000 pages published in 2004
- 25,000 articles published in 2004
- Print
- Electronic form
 - Via the web
 - Via email alerts



Role and Perspective

- ◆ IT manager for journal content creation
 - Manuscript Submission
 - Peer review
 - Production
- ◆ Electronic delivery handled by another team



Deploying a workflow and content management system

- ◆ Primary Principles and Objectives
- ◆ Ground Rules
- ◆ What we did well
- ◆ Lessons learned
- ◆ Recommendations



Where did we start?

- ◆ Paper and Electronic hybrid process
 - Process - totally paper driven
 - Processing – mostly electronic
- ◆ Proprietary tagging, not XML
- ◆ Inadequate tracking tools

Objectives

- ◆ Improve throughput
- ◆ Put emphasis on intellectual effort, not managing the content
- ◆ Improve quality
- ◆ Build a framework for automation
- ◆ Gain flexibility to add workflows and new tools



Objectives

- ◆ Improve tracking and reporting
- ◆ Create a single repository for journal information
- ◆ Reduce business rules staff need to know
- ◆ Reduce training time for staff

Principles

- ◆ First, do no harm
- ◆ Do not try to change the production processes at the same time the environment changes
- ◆ Make the deployment a non-event



Essential elements

- ◆ Correct and available resources available from business unit and IT
- ◆ Business processes and business rules understood in excruciating detail
- ◆ Technology is the lesser concern



What we did well

- ◆ Unique level of partnership achieved between the business unit and IT
- ◆ Implemented the existing workflow in the electronic model
- ◆ Avoided the temptation to over-engineer
- ◆ Selected the product well
- ◆ Testing



What we did well

- ◆ Smooth roll out
- ◆ Got the system up in production and were geared up to make changes
- ◆ Built administrative support tools into the system so that business unit could control as much of the system as possible
- ◆ Built quality controls into the system



What we learned the hard way

- ◆ Need for organizational readiness
- ◆ Prototype, Prototype, Prototype
- ◆ Did not recognize the magnitude and importance of defining the business rule changes early enough
- ◆ Did not get the system up into production early enough
- ◆ Did not get our developers directly involved with the vendor's developers early enough



Where did we land?

- ◆ Paper and Electronic hybrid process
 - Process – electronically driven with paper support materials
 - Processing – mostly electronic
- ◆ Proprietary tagging, not XML
- ◆ Poised to begin significant process changes to reduce staff time and cycle time

Benefits

- ◆ Enabling technology
- ◆ Brought disparate tools and content repositories into one physical/logical location
- ◆ Improved automation and productivity
- ◆ Dramatic improvement in tracking and reporting



Recommendations

- ◆ Determine if your organization is really ready to tackle this
- ◆ Document your processes to the utmost detail
- ◆ Document your business rules to the same level of detail



Recommendations

- ◆ Plan for life in the new world with as much focus as you spent in creating the new world
- ◆ Plan the deployment carefully
- ◆ Recognize that the technology aspect of such an undertaking is the easier part



Questions

