



WWW-Based Data Entry for Document Clearance Requests

Dana M. Stasiak
Argonne National Laboratory
October 8, 1997



Outline

- Document clearance process
- EDRC system
- Major components
- Expected benefits/costs
- Demonstration

RECEIVED

NOV 04 1997

OSTI



Problem

- All documents created at Argonne must be cleared before being published
- Clearance process is coordinated by the Publications & Record Services (PRS)
- Clearance process affects all researchers at Argonne

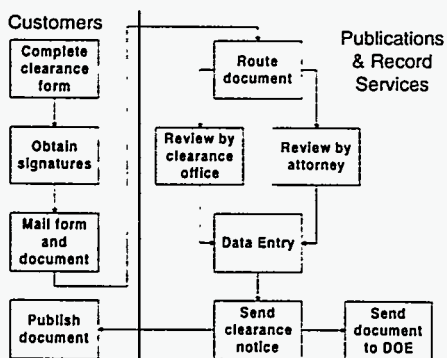


Actors

- Authors
- Publication Handlers
- Publications & Record Services
 - Data entry staff
 - Clearance officers
- Legal Dept.
 - Attorney
- DOE
 - Office of Scientific and Technical Information



Clearance Process



Motivation

- Demand by customers for an electronic clearance process
- Expedite clearance process
- Reduce paper flow
- Reduce duplicate data entry
- Establish a publications archive (in the future)

MASTER

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

Solution

- Electronic Document Review and Clearance System (EDRC)
 - Web-based submission of clearance requests
 - Electronic staging area for documents awaiting review
 - Web-based review and clearance of documents

EDRC Components

- BASISPlus database and server
- Web scripts
- Webservers
- Document staging area

APT Database

- APT = Argonne Publications Tracking
- Existing BASISPlus database for tracking clearance transactions
- Character cell interface for staff data entry
- FQM procs for generating reports, statistics, and quality assurance

Web Scripts

- Custom scripts written in C, using the BASIS OpenAPI
- Script functions
 - Dynamically generate the data entry screens
 - Process the results of HTML forms
 - Retrieve information from APT database
 - Update the APT database
- Functionality divided into 3 modules

Public Enter/Edit Module

- Enter clearance request information
- Edit clearance request information before saving
- Provide lists of accepted values
- Perform additional data validation
- Generate signature form

Public Update Module

- Receives data from enter/edit module
- Adds a record to the APT database
- Sends confirmation of database update to customer

Review Module

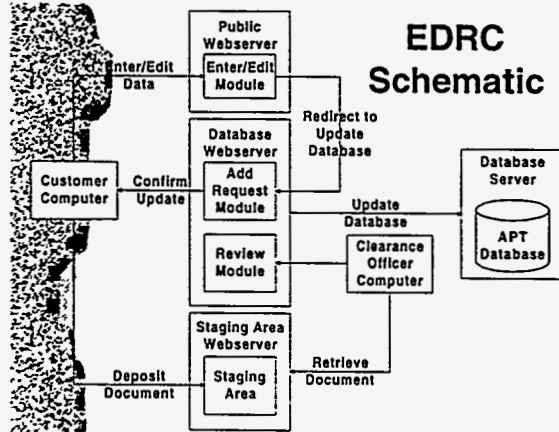
- Generate list of documents awaiting review
- Retrieve document to review from APT database
- Save review results

Webservers

- Public Webserver
 - runs the public enter/edit module
- Database Webserver
 - dedicated solely to handling database requests
 - runs the add request module
 - runs the review module
- Staging Area Webserver
 - access to documents awaiting review

Document Staging Area

- Repository for documents awaiting review and clearance
- Retrieve documents via a webserver
- Restricted access



Expected Benefits/Costs

- Benefits
 - Web interface is easy to learn
 - Highly customized data entry forms
 - Ability to edit data before updating database
- Costs
 - Longer development time
 - Harder to make changes to interface

Demonstration of Public Enter/Edit System



Note:

- Following slides may or may not be used as part of discussion on general web scripting at conference



Writing Scripts

- Common Gateway Interface (CGI) is a standard for creating web scripts
- Scripts can be written in pretty much any language available
- Beware of the security risks associated with each scripting languages
- Lots of information available on the Internet



Processing HTML forms

- Get the data string
 - name1=value1&name2=value2 . . .
- Break up the data string into name/value pairs and store in variables
- URL decode the value strings
- Do something with the form data



POST Forms

- POST forms pass the form data as a string on standard input with the format
 - name1=value1&name2=value2
- The length of this string is contained in the environment variable
 - CONTENT_LENGTH



GET Forms

- GET forms pass the form data as a string stored in the environment variable
 - QUERY_STRING
 - name1=value1&name2=value2
- Limits length of query string

URL Encoding/Decoding

- When form data is passed from a browser to a webserver, it is URL encoded
- URL encoding
 - special characters are converted to their hexadecimal equivalents and spaces are converted to plus signs (+)
- URL decoding
 - convert hexadecimal values into characters
- Special characters include ampersand (&), percent (%) and many others

Environment Variables

- REQUEST_METHOD
 - POST, GET
- CONTENT_TYPE
 - application/x-www-form-urlencoded
- CONTENT_LENGTH
 - length of string when using POST method
- QUERY_STRING
 - form data when using GET method

Sending Back a Response

- Must send the correct HTTP headers
- At a minimum, script must return the following
 - Content-type: text/html
 - <blank line>
- Blank line signals end of headers and beginning of HTML document
- Can also send Set-Cookie headers
 - Set-Cookie: name=value

BASIS Scripts

- Scripts which access a BASIS database must run in the correct environment
- Webserver environment does not usually have the correct settings
- Easy fix is to put a wrapper script around the BASIS script
- Can use the BASIS webserver gateway as a starting point for wrapper script
 - SDM/www/bin/nph-bwgcis

Unclassified Document Release Form

Main Menu

Help

Document Description

Please fill in as much of the following information as possible to expedite your request.

Submitted by: *Check One:* Argonne-East Argonne-West

Division: ▼

Cost Center:

Return to: Name:

Phone

Building

Badge #:

Questions: 1st ANL Author:

Phone

Funded by: LDRD?: Yes No

B&R Code:

Project ID:

Select 1 DOE or other funding agency per line and provide the corresponding UC code. If you have a funding agency that does not appear in either of the lists below, provide the name of the agency in one of the boxes below. You may select or enter a total of 5 funding offices.

DOE Offices

Other:

Other:

Document Type: ▼

Document Version: ▼

Submission Media: ▼

Distribution: ▼

Units: ▼

*Publications and Record Services
Information and Publishing Division
Argonne National Laboratory
Disclaimer*

Unclassified Document Release Form

[Main Menu](#)[Help](#)

Bibliographic Information

Conference Paper/Presentation

Please enter the title of the conference paper or presentation and as much of the remaining information as is available.

Title:

Invited?: Yes No

Conference Name:

Location:

Date:

Sponsor(s):

URL: If this document is available via the WWW, please enter the complete URL of the document.

[Next Section](#)

*Publications and Record Services
Information and Publishing Division
Argonne National Laboratory
Disclaimer*

Unclassified Document Release Form

[Main Menu](#)

[Help](#)

Authors

Author #1

Initials:

Last Name:

Suffix:

D. M.

Stasiak

1st Affiliation

ANL:

IPD

Select one

OR

Common:

OR

Other:

2nd Affiliation

ANL:

Select one

OR

or leave

Common:

blank

OR

Other:

3rd Affiliation

ANL:

Select one

OR

or leave

Common:

blank

OR

Other:

[Skip to End](#)

Author #2

Initials:

Last Name:

Suffix:

1st Affiliation

ANL:

Select one

OR

Common:

OR

Other:

2nd Affiliation

ANL:

Select one

OR

or leave

Common:

blank

OR

Other:

----- **OK**
 Other:

3rd Affiliation
 ANL:

Select one **OR**
 or leave **Common:**

blank **OR**
 Other:

[Skip to End](#)

Author #3

Initials: **Last Name:** **Suffix:**

1st Affiliation
 ANL:

Select one **OR**
 Common:

OR
 Other:

2nd Affiliation
 ANL:

Select one **OR**
 or leave **Common:**

blank **OR**
 Other:

3rd Affiliation
 ANL:

Select one **OR**
 or leave **Common:**

blank **OR**
 Other:

[Skip to End](#)

Author #4

Initials: **Last Name:** **Suffix:**

1st Affiliation
 ANL:
 Select one OR
 Common:
 OR
 Other:

2nd Affiliation
 ANL:
 Select one OR
 or leave Common:
 blank OR
 Other:

3rd Affiliation
 ANL:
 Select one OR
 or leave Common:
 blank OR
 Other:

[Skip to End](#)

Author #5

Initials:	Last Name:	Suffix:
<input type="text"/>	<input type="text"/>	<input type="text"/>

1st Affiliation
 ANL:
 Select one OR
 Common:
 OR
 Other:

2nd Affiliation
 ANL:
 Select one OR
 or leave Common:
 blank OR
 Other:

3rd Affiliation
 ANL:
 Select one OR
 or leave Common:
 blank OR
 Other:

[Skip to End](#)

Next Section	More Authors
------------------------------	------------------------------

*Publications and Record Services
Information and Publishing Division
Argonne National Laboratory
Disclaimer*

Unclassified Document Release Form

[Main Menu](#)
[Help](#)

Information Summary

You have finished entering all the required information for your request. The information is summarized below. Please review this information carefully. You may edit the information you have entered by selecting one of the *Edit* buttons. When you have completed reviewing the information follow the instructions at the bottom of the page.

Document Description

Document Identifiers: APT #: ANL-330 Form #:
 PRS ID #:

Submitted by: Division: IPD, Argonne-East
 ALD: OPS
 Cost Center: 123

Return to: Name: Dana M. Stasiak
 Phone: 1234
 Building: 789
 Badge #:

Questions: 1st ANL Author: Dana M. Stasiak
 Phone: 1234

Funded by: LDRD?: No
 B&R Code:
 Project ID:
 Funding Offices/Agencies:

Document Type: Conference Paper/Presentation
 Document Version: Viewgraphs
Submission Media:
 Distribution: Unlimited
 Units: None

[Edit](#) the document description.

Bibliographic Information

Title: WWW-Based Data Entry for Document Clearance Requests
Invited?: No
Conference Name: IDEA Annual Conference
Location: St. Louis, MO USA
Date: October 5-9, 1997
Sponsor(s): Information Dimensions Exchange Association
URL:

the bibliographic information.

Author Information

1. Stasiak, D. M. [ANL-IPD]

the author information.

To send your request . . .

If you are satisfied with the information you have entered, select the **Send Request** button at the bottom of the screen. Selecting this button will enter your request in the Argonne Publications Tracking (APT) database. A confirmation message will appear telling you the ID number of your request and provide further instructions about submitting your document electronically and printing out the signature form.

*Publications and Record Services
Information and Publishing Division
Argonne National Laboratory
Disclaimer*

Unclassified Document Release Form

[Main Menu](#)[Help](#)

Confirmation of Request

Your request has been added to the Argonne Publications Tracking System (APT). Your request has been assigned an APT ID # of:

-

Please use this identification number when inquiring about the status of your request.

Signature Form

To complete your request, please select the button *Signature Form* below. Selecting this button will create a form containing the information you have entered, a space to fill in the intellectual property and classification review information, and a space for the signatures of the author, division/program representative, and the authorized derivative classifier (if needed). Please print out this page using the print commands of your browser and obtain the necessary signatures. Mail the signed form to the PRS office.

NOTE: Processing of your request will **NOT** begin until the signed form is received by PRS.

[Signature Form](#)

To return to this page after printing the signature form, press the *Back* button of your web browser.

Sending Your Document

You have indicated that you will be sending your document via conventional mail. Please include 3 copies of the document with the signature form.

*Publications and Record Services
Information and Publishing Division
Argonne National Laboratory
Disclaimer*

Unclassified Document Release Form

Signature Form

Document Description

Document Identifiers: APT #:

ANL-330 Form #:

PRS ID #:

Submitted by: Division: IPD, Argonne-East

ALD: OPS

Cost Center: 123

Return to: Name: Dana M. Stasiak

Phone: 1234

Building: 789

Badge #:

Questions: 1st ANL Author: Dana M. Stasiak

Phone 1234

Funded by: LDRD?: No

B&R Code:

Project ID:

Funding Offices/Agencies:

Document Type: Conference Paper/Presentation

Document Version: Viewgraphs

Submission Media:

Distribution: Unlimited

Units: None

Bibliographic Information

Title: WWW-Based Data Entry for Document Clearance Requests

Invited?: No

Conference Name: IDEA Annual Conference

Location: St. Louis, MO USA

Date: October 5-9, 1997

Sponsor(s): Information Dimensions Exchange Association

URL:

Author Information

1. Stasiak, D. M. [ANL-IPD]

Intellectual Property

YES NO

- Is this document the author's original work?
- Does this document contain copyrighted material? If YES, attach letter(s) of release from the source(s) that own(s) the copyright.
- Does this document contain any libelous statements or other unlawful statements?

Check One:

- To the best of my knowledge, discloses no invention or copyrightable software
- Uncertain as to disclose of an invention or copyrightable software
- Discloses unreported invention or copyrightable software
- Discloses invention or software reported as

YES NO

- Does this document include information covered by a nondisclosure agreement to protect the interests of either ANL or an outside organization?
- Does this document include information resulting from research funded by a Cooperative Research and Development (CRADA), Work for Others (WFO), Pilot Center Agreement, or other Laboratory agreement?

If yes to any of the above questions, author should contact the Patent counsel (ext 2-6431) and complete the following:

Type of Agreement:

Contract Number:

Partner(s):

Classification Review

1. Author

Author signature required for all documents submitted for publication or release.

_____ This document does not contain potentially classified information. (Send to authorized division/program representative.)

_____ This document does contain potentially classified information. (Send to Authorized Derivative Classifier.)

Author Signature Badge Date

2. Authorized Derivative Classifier

ADC signature required for documents that contain any potentially classified information, as determined by author or division/program representative. Not required if author and division/program representative concur that the document does not contain potentially classified information.

I certify that this document is unclassified.

ADC Signature Badge Date

3. Division/Program

Authorized division/program signature required for all documents submitted for publication or release.

_____ I request ADC review of this document and a classification determination be provided. (Send to ADC for a review. After ADC approval, check last box below and sign.)

_____ I concur with the author that this document does not contain potentially classified information and meets all divisional requirements and reviews. (Sign and send to PRS.)

_____ I acknowledge that this document has received an ADC review and does not contain classified information. This document meets all divisional requirements and reviews. (Sign and send to PRS.)

Division/Program Signature Badge Date

Unclassified Document Release Form

Main Menu Help

Help Topics

Select a new help topic from the box and then select the *New Topic* button to retrieve the help. You may return to the data entry screens at any point by selecting the *Exit Help* button in the toolbar.

Information Summary Screen Help

The information summary screen consists of two sections. The first section summarizes all the data you have entered for your clearance request. The information is divided into three parts:

- Document Description
- Bibliographic Information
- Author Information

You should review this information carefully. If you would like to change the information in any one of the three parts, select the *Edit* button at the bottom of that part. This will open the appropriate screen so you can edit your data. When you finish editing the data for a part, select the *Done Editing* button at the bottom of the data entry screen to return to the information summary.

The second section of the information summary screen is for finalizing your clearance request. If you are satisfied with the information you have entered, select the *Send Request* button. This will add your request to the Argonne Publications Tracking System. If the update is successful, the confirmation of request screen will open. To cancel your request, select the *Cancel Request* button.

Publications and Record Services
Information and Publishing Division
Argonne National Laboratory
Disclaimer