

Dynamically generated pages using database-to-web technologies

Enhancing library services and operations

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ASEE National Conference

Database-to-web technologies

- Gaining popularity with libraries
- Creates pages "on the fly" (when the page is requested)
vs. static pages (completely written in advance)
- Common on business sites for catalogs and e-commerce

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Why now?

- Inherent efficiency through re-use of data
- Software makes the technology accessible to non-programmers

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Applications

- Commercial
 - Web accessible OPACs
 - Online indexes
- Local
 - List of available indexes
 - Catalog of local collections, eg. standards
 - Data collection and report generation

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How is this done?

- CGI (Common Gateway Interface)
 - Needs a programmer to write in C or Perl
 - Labor intensive and resource intensive
- ASP (Active Server Pages)
- PHP
 - Scripting languages, a little more accessible than CGI, embedded in page

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How is this done?

- Zope
- ColdFusion
 - Middleware, accessible to non-programmers, embedded in page

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ASP vs. ColdFusion

■ ASP

```
<%  
strSQLQuery = "SELECT * FROM tablename WHERE Name = 'Fred'"  
Set rs = Server.CreateObject("ADODB.Recordset")  
rs.Open strSQLQuery, conn, 3, 3  
%>
```

■ ColdFusion

```
<CFQUERY name="getFred" datasource="database">  
SELECT *  
FROM tablename  
WHERE Name="Fred"  
</CFQUERY>
```

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SQL and you

- Regardless of programming interface, knowledge of SQL (Standard Query Language) is needed

■ Example:

```
SELECT name, description, URL  
FROM indexes  
WHERE URL like 'http://hwwilsonweb.com/%'
```

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Software choices

■ Based on what's already available

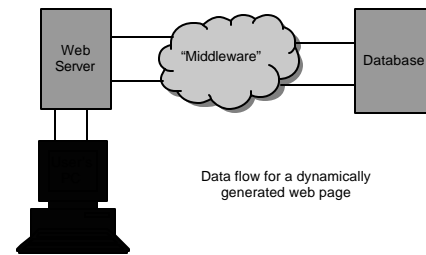
- Windows – IIS
 - ASP
 - Zope
 - ColdFusion
- Linux/Unix – Apache
 - ColdFusion
 - Zope
 - PHP

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Middleware, how does it work?



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Programming – Who will do it?

- Student Employee
 - Cheap, current skills
 - Rapid turn-over
- Regular Staff member
 - “longevity”
 - Added duties

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Design Process

- Data modeling
- Database layout
 - Data elements
 - Organization of data
- Design of interface/web pages
- Coding and Implementation

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The Purdue Experience

- Instruction Session Reporting
 - Statistics on instruction offered throughout the year
 - Old Way
 - Fill out an information card on the session
 - Send to a staff member
 - Staff member entered into a database and later generated necessary reports

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Instruction Reporting (con't)

- New way
 - Instead of filling in card, instructor fills in a web form
 - Alleviates staff data entry time
 - Automatically more legible
 - Consistency of reporting departments/courses
 - Individual instructors can generate their own reports as needed
 - Confirmation of data entry

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User Instruction Report Form

Library Staff Member: ACCORDI, JAN, TECH; ALLEN, LINDA, LISA; ANDERSON, KRISTEN, LYDIE; BAUER, THOMAS, PUP; BROWN, BRUCE, TERRY; BROWN, BOB, TECH; BROWN, JAMES, STEC; BROWN, JAY, LISA; BLACK, GRETHERSE

Date of Session: _____

Length of Session: _____

Enter course number: _____

Reporting instructor / Contact person: _____

Level of instruction: Advanced Intermediate Orientation

Type of instruction: Library Session Class Tutorial Information Table

Affiliation: University/Non-Course related University Course related Non-University

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Instruction Form Confirmation

The following information has been added to the Purdue Libraries Instruction Database.

Instructor(s): Amy VAN EPPS
Date: 06/09/03

Dept and course number: NONE
Course name / Group Name: MARC/ADM orientation
Reporting Instructor / Contact Person: Meredith Ruchard
Number of sessions: 1
Number of people: 1
Length of session: 1:00

Level of Instruction: Orientation
Type of Instruction: Class
Affiliation: University-Non Course related

Objectives:
Comments:

Selected Goals and Objectives:
Goal 4 = yes
Goal 4, Objective 2 = yes
Goal 4, Objective 3 = yes
Goal 4, Objective 4 = yes
Goal 5 = yes
Goal 5, Objective 3 = yes

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Additional Projects

- Review of Approval Books
 - Web presentation of approval books for faculty review
 - Item information already maintained in a database
- Index of Paper Standards Collection
 - Provide access to an un-cataloged collection
 - Keyword searching capability
 - Included a collection inventory

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Coding tips

- Comment your code!
- Remember the field types
- DATES!!
- Test the code in small sections
- "Rubber ducking"

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[Thank you]

- Questions?

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