Paperless Ideas for Abrasive-Form

As presented by:
IPRO 347
Introduction

IPRO 347

The purpose of this IPRO is to make Abrasive-Form a better company by saving space, time, and money.
Team Ethics

- The team’s Ethics Plan stresses respecting the non-disclosure agreement with Abrasive-Form®
- Disclosing information about Abrasive-Form® could cause the team to acquire biased information
Project Team Members

- **Instructor:** William Maurer

- **Sponsor:** Abrasive-Form, Bloomingdale, IL
  **Company Representative:** Greg Zilinisky

- **Team:** Vitali Basiourski [ME], Christopher Drag [EE], Samad Erogbogbo [ME], Richard Ike [ME], Maciej Krolikowski [BME], Daniel Mendez [EE], Erin Mersch [BAAS], Anton Orlichenko [CPE], Justin Roediger [BME], and Despina Zouridis [ARCH], William Cabrera [ME].
Established in 1976, Abrasive-Form is a rapidly growing contract manufacturer specializing in creep-feed grinding.

Proven Performance  Abrasive-Form's satisfied customers includes hundreds of distinguished companies spanning the spectrum of American Industry.

Expert Technical Help  Abrasive-Form’s grinding experts can assist with design and process specifications.
The Problem

IPRO 347

Abrasive-Form, a growing 21st century company using data management comparable to an abacus
Team Organization

❖ **Quality Control**
  - Vitali Basiourski
  - William Cabrera

❖ **Operations**
  - Christopher Drag
  - Daniel Mendez

❖ **Accounting**
  - Samad Erogbogbo
  - Richard Ike

❖ **Purchasing/Shipping**
  - Maciej Krolakowski
  - Justin Roediger
  - Despina Zouridis

❖ **IT Dept.**
  - Erin Mersch
  - Anton Orlichenko
Abrasive-Form Needs

- Replace current physical document storage system
  - Real time updating
  - Simple and easy to use
    - Administrator and user control
    - Search Engine
      - Several searchable criterion
    - Has sub-folders
    - Time stamps
    - Comment logs
  - Off-site backup
Abrasive-Form Wants

- E-mail alerts/alarms
- Remote Access
- Bar coded files
- Write to electronic documents
- Integrate data from CMM in database
- Export from Vista to database
Team Re-organization

**Systems**
- Vitali Basiourski
- Samad Erogbogbo
- Richard Ike
- Erin Mersch
- Anton Orlichenko

**Information**
- Christopher Drag
- Daniel Mendez
- William Cabrera
- Maciej Krolikowski
- Justin Roediger
- Despina Zouridis
Goal

Create an easy-to-use, windows server based, content management system
System Testing

- Possible Solutions for electronic filing:
  - Windows Search
  - Google Desktop
  - Bugzilla
  - Django
  - SharePoint
Windows Search

❖ Pros:
   ➢ Pre-installed on the computer – no purchasing/downloading necessary
   ➢ Can be limited to a folder

❖ Cons:
   ➢ Difficult to integrate with browser-based applications
Google Desktop

❖ Pros:
    ➢ Simple interface
    ➢ Searches within .pdf files
    ➢ Sorts by date

❖ Cons:
    ➢ Only for searching capabilities
    ➢ Searches the entire computer, not just a particular job folder
      • Possible confusion
Index Status

One-time index update in progress.

16.2% complete with about 4.8 idle hours left. 3,184 item(s) indexed so far.

<table>
<thead>
<tr>
<th>Total searchable items</th>
<th>Number of items</th>
<th>Time of newest item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gmail</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Emails</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Web history</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>Files</td>
<td>2,119</td>
<td>0:17</td>
</tr>
<tr>
<td>Media</td>
<td>959</td>
<td>0:15</td>
</tr>
<tr>
<td>Other</td>
<td>106</td>
<td>07/02/2008</td>
</tr>
</tbody>
</table>
Bugzilla

❖ Pros:
   ➢ Allows you to make comments on each folder and search within the comments
   ➢ Allows search by job folder number

❖ Cons:
   ➢ Not a complete content management system
      • Needs Perl coding language installed
Bugzilla Version 2.22.1-debian2

Bug List

Bugs on this list are sorted by relevance, with the most relevant bugs at the top.


Bugzilla would like to put a random quip here, but no one has entered any.

<table>
<thead>
<tr>
<th>ID</th>
<th>Sev</th>
<th>Pri</th>
<th>OS</th>
<th>Assignee</th>
<th>Status</th>
<th>Resolution</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>blo</td>
<td>P2</td>
<td>Linu</td>
<td><a href="mailto:aorliche@gmail.com">aorliche@gmail.com</a></td>
<td>NEW</td>
<td></td>
<td>Job 23346</td>
</tr>
</tbody>
</table>

One bug found.

Actions:

Home | New | Search | [Search Box] | Find | Reports | My Requests | My Votes | Sanity check | Log out | aorliche@gmail.com

Edit:

Prefs | Parameters | User Preferences | Users | Products | Flags | Field Keywords | Whining

Saved Searches:

My Bugs

Add bugs [Search Box] to the new saved search: [Search Box]
Django

❖ Pros:
  ➢ Framework for building a content management system
  ➢ Fully customizable
  ➢ Easily linked to Databases and File Servers
  ➢ Pre-made admin. pages

❖ Cons:
  ➢ Takes longer to implement, further development would be required
  ➢ Extra coding is necessary to customize

❖ Python language required
## Site administration

<table>
<thead>
<tr>
<th>Auth</th>
<th>Add</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Users</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sites</td>
<td>Add</td>
<td>Change</td>
</tr>
</tbody>
</table>

### Jobman

<table>
<thead>
<tr>
<th>Customer</th>
<th>Add</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Document types</td>
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</tr>
<tr>
<td>Document versions</td>
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<tr>
<td>Documents</td>
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<tr>
<td>Job comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jobs</td>
<td>Add</td>
<td>Change</td>
</tr>
</tbody>
</table>

### Recent Actions

- **RE: Packing slip (Job #23346, Shipping)** And we can also make comments at the level of indi...
  - Document comment
- **RE: Packing slip (Job #23346, Shipping)** And we can also make comments at the level of indi...
  - Document comment
- **RE: Job #23346 We can make comments about jobs**
  - Job comment
- **RE: Job #23346 We can make comments about jobs**
  - Job comment
- **Packing slip (Job #23346, Shipping) v. 1**
  - Document version
- **Packing slip (Job #23346, Shipping)**
  - Document
- **Shipping**
  - Document type
- **23346**
  - Job
- **Goodrich Corporation**
  - Customer
SharePoint

❖ Pros
  ➢ Comes with most Windows servers
  ➢ Easy to use
    • Easy to configure
    • Actual use requires little training
  ➢ Powerful engine
    • Version tracking to record the history of documents
    • Searchable information to identify a document
    • Document publishing control, including publishing to specific audiences
    • Document approval routing

❖ Cons
  ➢ Extra firewall is necessary for remote access
  ➢ Must have Windows Server 2003
Data Input

Job Folder
Contains many documents

Documents
• Job traveller
• Shipping
• Purchasing
• Inspection Sheets

Scanner/Workstation
Librarian converts docs to PDF format

SharePoint Server
Digitized docs are sent over the company network to a central server
**SharePoint + SQL**
SharePoint server uses SQL to write and retrieve data.

**Storage Area Network**
Documents stored locally on the server. More space available with SANs.

**Offsite Backup**
Electronic job docs may be backed up online.
Data Retrieval

**SharePoint Server**
Documents available in electronic job folders, on a website visible to the VPN only

**End User**
From SharePoint, employees can:
- Print docs
- Send docs as email
- Annotate docs on the server
- More?
Obstacles

★ Difficulty Coordinating with Company
  ➢ Delays in project progress
  ➢ Delays in interviews
  ➢ Information of current resources not clear

★ Interviews
  ➢ Large amount of information gathered from employee interviews
  ➢ Employees more concerned with wants than needs

★ Majority of the team not familiar with programming
  ➢ Creating a customized database requires a sizable amount of programming
Results

- Working SharePoint prototype
  - Easy to use and configure
  - Fulfills search criterion, organization requirements, and customizable

- Storage
  - SANs

- Backup
  - MozyPro

- Security and off-site access
  - CISCO Firewall

- Scanner-printer hardware
  - Several recommendations
Looking Ahead

- Test functionality of system
- Train employees to use SharePoint
- Implement wants into system
  - Email alerts
  - Bar Codes/RFID

- *Keep Abrasive Form HAPPY :]*
Acknowledgements

- Greg Zilinsky, Manager of Strategic Programs, Abrasive-Form Inc.
- Mark Sami, IIT Alumni and SharePoint Consultant
Questions