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Curtis Williams

What Senior Management Wants: Value Added Approach to Systems Enhancement

July 14, 2010
### Problem Statement – Setting the Stage

- Actual Case Study - Annual 5 Yr. Planning Event
- Methodology - Nothing Structured
- Leadership – Decentralized Committee
- Team - Executives and SME’s w/ Varying Interests
- Economy – Crisis, Budget Cutting
- Questions
  - What is the “Tipping Point” for GIS?
  - Why should we spend more money?
  - Competing for Budget Interests?
- Not Consultants!
Guiding Principles and Approach

- What Now?
- Challenge as Opportunity - Create a Sense of Urgency
- Named Project - GeoFusion Improvement Initiative
- Defined Tipping Point - Scenarios of What System Could Be
- Collaboration - Included Key Stakeholders
- Scientific Approach - Metrics for Decision Making
- Communication - Socialize Plan with SME’s (get buy in)
- Secure Leadership Approval - Wrench Time
- Process Focused - Evaluated Software and Data against Business Processes
GII Systems Planning

**Seven Step Lifecycle**

1. **Step 1:** Define Tipping Points
2. **Step 2:** Select Team, Develop Tools and Interview Stakeholders
3. **Step 3:** Translate Stakeholder Feedback into a Draft Project List
4. **Step 4:** Develop a Weighted Matrix to Prioritize Project List
5. **Step 5:** Refine Project List (apply matrix)
6. **Step 6:** Develop Draft 5 Year Plan (Add Cost, Schedule, etc.)
7. **Step 7:** Present Findings to Leadership (Dashboard)
1. Today
Compliance &
Engineering System

2. Near Term
Land & Integrity
Management System

3. Future
Enhanced
Operations

Collect Data

Manage & View Data

Analyze & Report Data

GeoFusion Tipping Points

- Crossing Encroachments
- Structures (Class Location)
- Repair & Replacement
- Pipe Change Outs
- Coating Changes

Aerial Patrol
Internal

Data & Drawing Access
GeoWeb

One Call Data
Irth

Pipeline
As-Building
PipeView

Pipe Inspection
eForms Streamline
NetLite

New Construction
Redlines & BlueSky

Digital Imagery

ISAT / eISAT
Database

Database Adapters

In-Line
Inspection

Corrosion Mgmt.
Prism & Paradigm

Gas Quality Mgmt.
TSIMS

ROW Management
ROWDMAP

ROWDMAP

Workflow/
MIS Database

Condition Monitoring

Gas Measurement
SCADA

Fuel Management

Work Scheduling
Maximo

Other Expansion:
- Options
- Reliability
- Outage Schedule
- Physical Security
- Vehicles/Equipment
- SOP Manuals
- Environ. Permits
- Capital Budget
- Environmental

Risk Assessment
Internal Process

Compliance Reporting
Internal

MAOP Calculation
Internal

Hurricane Tracking
NOAA

Taxing Authority
Internal

Alignment Sheet
SheetGen/Turbo Route

DOT Class & HCA
ClassWorks

MAOP Calculation
Internal

ROWDMAP

ROWDMAP

Data Integration
Opportunity
Step 2: Select Team, Develop Tool and Interview Stakeholders

- Developed Template Agenda
- Assigned Facilitators
- Performed Interviews
- Over a 4 month effort
- Included 50 Stakeholder Participants
- Performed 30 Interviews
- Across multiple companies and departments
- Business Process Focused
Step 3: Translate Stakeholder Feedback Into a Draft Project List

- No misrepresentation of feedback
- Interview forms were populate via SharePoint templates
- Electronically mapped team comments to create list
- Received approximately 350+ comments from interviews
- Created a draft project list of over 80 meaningful projects
**Step 4:** Develop a Weighted Matrix to Prioritize Project List

- **Criteria:** Why would El Paso Leadership spend money on a GeoFusion Project?

- **Weights:** What is the weight distribution between the criteria?

- **Collaboration:** Weighted matrix was built with consensus from multiple departments.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety/Pipeline Integrity</td>
<td>35%</td>
<td>How will pipeline safety or integrity be impacted?</td>
</tr>
<tr>
<td>Pipeline Compliance</td>
<td>30%</td>
<td>How will pipeline compliance be impacted?</td>
</tr>
<tr>
<td>Cost Benefit</td>
<td>20%</td>
<td>What is the cost versus benefit ratio?</td>
</tr>
<tr>
<td>Process Required/ Increased Utilization</td>
<td>15%</td>
<td>Is there process efficiency or increased utilization?</td>
</tr>
</tbody>
</table>
Step 5: Refine Project List (apply matrix)

- Apply Weighted Matrix – Numeric Value
- Apply Common Sense Evaluation – Numeric Value

→ Does this make sense?
→ Are we missing anything?

GII Draft Project List

<table>
<thead>
<tr>
<th>Weighted Matrix</th>
<th>Safety/Pipeline Integrity</th>
<th>35%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pipeline Compliance</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>Cost Benefit</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Process Required/ Increased Utilization</td>
<td>15%</td>
</tr>
</tbody>
</table>

Common Sense Evaluation
Step 5: Refine Project List (apply matrix)

- Moving Closer to the 5 Year Plan
- Established Numeric Value or 20 to act as the “Cut Line”
- Approximately 1/3 Fell Above Cut Line and 1/3 Fell Below and 1/3 Deleted
- Approximately 24 Data and 30 Software Projects
### Step 6: Develop Draft 5 Year Plan (Add Cost, Schedule, etc.)

#### Aggregate/Prerequisite Projects:
Denotes project sequence in coordination with other similar project.

#### Team Recommendation:
Denotes the team’s final decision concerning the project status.

#### Cost and Schedule Projections:
Denotes estimated project cost and schedule.

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#### GII Projects List

<table>
<thead>
<tr>
<th>No.</th>
<th>Ref ID</th>
<th>Project Name</th>
<th>Weighted Ranking</th>
<th>Common Sense Ranking</th>
<th>Final Decision</th>
<th>Prerequisite</th>
<th>Cost Category &amp; Projected Year</th>
<th>General Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Status Reconciliation (Data)</td>
<td>34.75</td>
<td>34.75</td>
<td>Y</td>
<td>None</td>
<td>A, 2010</td>
<td>Should not be difficult.</td>
</tr>
<tr>
<td>2</td>
<td>44</td>
<td>Enhance Activities Tracking (Data)</td>
<td>31.75</td>
<td>31.75</td>
<td>Y</td>
<td>Ref ID's 45, 46, 32</td>
<td>A, 2011</td>
<td>Coordinate with other reconciliation projects to minimize research.</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>AGM Data Integration (Data)</td>
<td>30.25</td>
<td>30.25</td>
<td>Y</td>
<td>Ref ID's 1, 15</td>
<td>D, 2010</td>
<td>Need to validate scope of project (e.g., all new projects or include historical data &amp; how far back do we go?). Should we consider Integrity Web requirements as a prerequisite?</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>New Pipe Move Notification 100ft (Software I Process)</td>
<td>30.25</td>
<td>32</td>
<td>Y</td>
<td>None</td>
<td>A, 2010</td>
<td>This functionality may be a portion software (or tool), a portion manual process or built into the as-built process. Are notifications electronic or adhoc?</td>
</tr>
<tr>
<td>5</td>
<td>70</td>
<td>Enhance As-built Process - Reduce Timing of Completion (Processes)</td>
<td>32</td>
<td>32</td>
<td>Y</td>
<td>Ref ID's 44, 46, 32</td>
<td>A, 2010</td>
<td>Tom Broughton Request. This process enhancement will be contingent on our ability to “speed up” the timeliness of completion.</td>
</tr>
<tr>
<td>6</td>
<td>41</td>
<td>Add Comp Station MAOP (Data)</td>
<td>29.5</td>
<td>29.5</td>
<td>P</td>
<td>None</td>
<td>D, 2012</td>
<td>Need to validate scope of project (e.g., all new projects or include historical data &amp; how far back do we go?).</td>
</tr>
<tr>
<td>7</td>
<td>46</td>
<td>Pressure Test Record Reconciliation (Data)</td>
<td>29.5</td>
<td>29.5</td>
<td>Y</td>
<td>Ref ID's 44, 46, 32</td>
<td>D, 2011</td>
<td>Requires further scoping. Evaluate source data. Coordinate with other reconciliation projects to minimize research.</td>
</tr>
</tbody>
</table>
### Step 7: Present Findings to Leadership (Dashboard)

#### Acceptable/Stable: The data or software is meeting the business process need.

#### Enhancement Opportunity: The data or software is meeting the business process need, yet there is potential for positive ROI.

#### Needs Improvement: The data or software is not meeting the business process need.

#### Future Evaluation: The supporting data or software is not available to evaluate.

<table>
<thead>
<tr>
<th>Core Business Process</th>
<th>Existing System Status</th>
<th>Data</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tipping Point 1 (Engineering and Compliance System)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calc Balancing</td>
<td>Acceptable/Stable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Car Washing</td>
<td>Needs Improvement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dish Cleaning</td>
<td>Acceptable/Stable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wallpapering</td>
<td>Enhancement Opportunity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil Changing</td>
<td>Needs Improvement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dog Walking</td>
<td>Enhancement Opportunity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Babysitting</td>
<td>Enhancement Opportunity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workout Routine</td>
<td>Enhancement Opportunity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floor Mopping</td>
<td>Future Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vacuuming</td>
<td>Enhancement Opportunity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Window Washing</td>
<td>Needs Improvement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garage Cleaning</td>
<td>Acceptable/Stable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lawn Mowing</td>
<td>Enhancement Opportunity</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tipping Point 2 (Integrity Management and Land System)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tree Trimming</td>
<td>Future Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flowerbed Weeding</td>
<td>Future Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothes Washing</td>
<td>Enhancement Opportunity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dinner Preparation</td>
<td>Acceptable/Stable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tire Changing</td>
<td>Enhancement Opportunity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tree Watering</td>
<td>Enhancement Opportunity</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tipping Point 3 (Enhanced Operation and Corporate System)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dish Drying</td>
<td>Future Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floor Sweeping</td>
<td>Future Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furniture Dusting</td>
<td>Future Evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>House Painting</td>
<td>Acceptable/Stable</td>
<td></td>
<td></td>
</tr>
</tbody>
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Template Tool Demonstration
GII Systems Planning

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